



National Fire Incident Reporting System

Complete Reference Guide

January 2015



FEMA

U.S. Fire Administration
National Fire Data Center

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FOREWORD

In 1972, the President’s Commission on Fire Prevention and Control published *America Burning*. This document was the first in-depth discussion of this country’s fire problem. An outgrowth of *America Burning* was the National Fire Prevention and Control Act, Public Law 93–498, which established the National Fire Prevention and Control Administration.

One of the results of the P.L. 93–498 mandate to collect national data on fires was the establishment of the National Fire Incident Reporting System (NFIRS). In 1976, six States piloted what eventually evolved into NFIRS. The U.S. Fire Administration (USFA), a component of the Department of Homeland Security (DHS), developed NFIRS as a means of assessing the nature and scope of the fire problem in the United States.

NFIRS has grown in both participation and use. Over the life of the system, all 50 States, more than 40 major metropolitan areas, and more than 15,000 fire departments have participated in NFIRS. On a yearly basis, approximately 600,000 fire incidents and more than 5 million non-fire incidents are added to the database. NFIRS is the world’s largest collection of incidents to which fire departments respond.

NFIRS data are used at all levels of government. At the local level, incident and casualty information is used for setting priorities and targeting resources. The data now being collected are particularly useful for designing fire prevention and educational programs and emergency medical service (EMS)-related activities specifically suited to the real emergency problems the local community faces.

On the State level, NFIRS is used in many capacities. One valuable contribution is that NFIRS data are used by State legislatures to justify budgets and to pass important bills on fire-related issues such as sprinklers, fireworks, and arson.

Many Federal agencies, in addition to USFA, make use of NFIRS data—the Consumer Product Safety Commission (CPSC), the National Highway Traffic Safety Administration (NHTSA), the National Institute of Standards and Technology (NIST), to name a few. The CPSC has found NFIRS very useful in identifying potentially hazardous products.

Nationally, NFIRS is used by various private industries, including national associations for home appliance product manufacturers, the hotel and motel industry, insurance companies, and attorneys.

Because NFIRS is a voluntary system, not all States or fire departments within States participate. In 1977, only 6 States regularly reported data to the National Fire Data Center (NFDC), and 19 others had data systems in some stage of development. Since then, participation has increased significantly so that an estimated 44 percent of all U.S. fires to which fire departments respond are captured in NFIRS.

States have the flexibility to adapt their state reporting systems to their specific needs, and reporting by localities is voluntary. Therefore, the design of a state’s data collection system varies from state to state. However, NFIRS was designed so that data from state systems can be converted to a single format that is used at the national level to aggregate and store NFIRS data.

FOREWORD

As participation in NFIRS increased, the system itself has undergone revisions and updates. The latest update of the system is Version 5.0, which provides many improvements both from the standpoint of those who submit the data and for those who use it. This reference guide provides step-by-step instructions for submitting fire incident information to NFIRS 5.0.

Comments and suggestions on further improvements to this guide are solicited and should be submitted to National Fire Data Center, U.S. Fire Administration, Department of Homeland Security, 16825 South Seton Avenue, Emmitsburg, Maryland 21727. Comments can also be made on line on the USFA Web form at <http://www.usfa.fema.gov/>

Chapter 1

INTRODUCTION

Chapter 1 • Introduction

This reference guide is a component of the National Fire Incident Reporting System (NFIRS) Version 5.0. It provides both instructions for reporting data to NFIRS Version 5.0 and an understanding of the data elements collected by the system. It also serves as a reference for the coding of the data. NFIRS (pronounced “en-furs”) is a tool that fire departments use both to report fires and other incidents to which fire departments respond and to maintain records of these incidents in a uniform manner.

NFIRS 5.0 is a modular, all-incident reporting system designed by the U.S. Fire Administration (USFA), a part of the Department of Homeland Security (DHS), with input from the fire service and other users of the data.

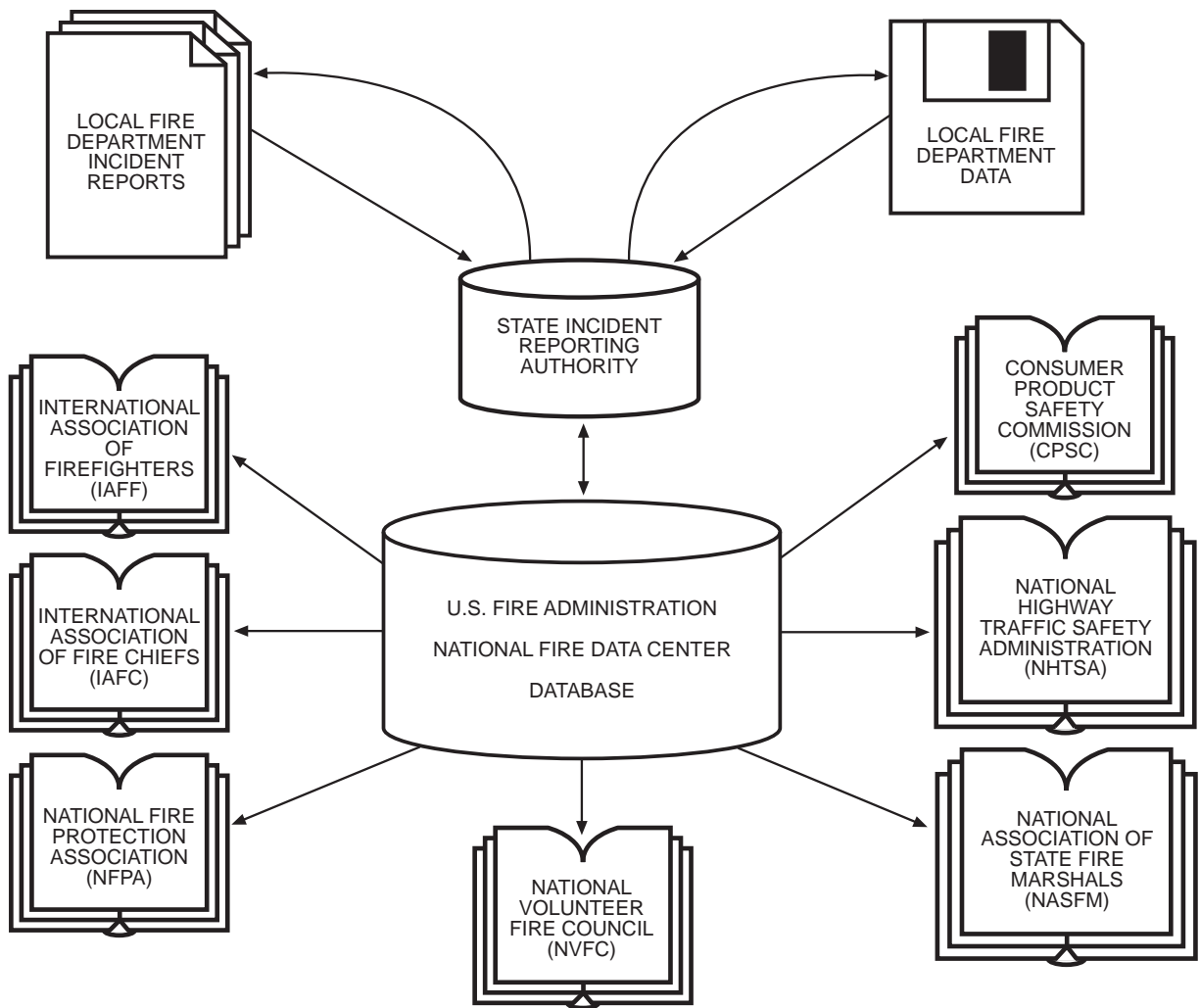
How NFIRS Works

In 2001, more than 12,000 fire departments participated in NFIRS. After responding to an incident, fire department personnel complete one or more of the NFIRS “modules.” The information in these modules describes the kind of incident responded to, where it occurred, the resources used to mitigate it, and how losses and other information designed specifically to understand the nature and causes of fire, hazardous material (HazMat), and emergency medical service (EMS) incidents. Information is also collected on the number of civilian or firefighter casualties and an estimate of property loss. The uniformity of definitions used in coding NFIRS fields makes aggregation of national data possible.

Information is entered about an emergency response either manually on a form or directly through a computer. Local agencies forward the completed NFIRS modules to the State agency responsible for NFIRS data. The State agency combines the information with data from other fire departments into a statewide database and then transmits the data to the National Fire Data Center (NFDC) at the USFA. The NFDC can then compare and contrast statistics from States and large metropolitan departments to develop national public education campaigns, make recommendations for national codes and standards, guide allocation of Federal funds, determine consumer product failures, identify the focus for research efforts, and support Federal legislation. NFIRS is the primary source of data for a wide range of analyses and reports, including USFA’s publication *Fire in the United States*, which is the single most comprehensive reference on the nature and scope of the fire problem in the United States.

At the national level, data combined from participating States are also used by information partners, as shown in the following graphic.

INCIDENT REPORTING PROCESS



NFIRS Version 5.0 Enhancements

NFIRS 5.0 is an information-based system with data entry, data storage, and data retrieval, whether for a single incident or in aggregate, aggregated via a computer that interacts with the database. Because not all fire departments use computers for their recordkeeping, paper forms are available. Paper forms are forwarded to a central point where the data are entered to a database. This guide provides detailed instructions for completing paper forms. Automated reporting systems, however, should be designed to capture the data in the same order as these paper forms, so this guide is relevant to anyone who must collect and report incident data.

In Version 5.0, a series of descriptions with assigned code numbers is used to describe incidents. Many of these descriptive phrases were created by the National Fire Protection Association (NFPA) and published in NFPA 901, *Standard Classifications for Incident Reporting and Fire Protection Data*, 1995 edition. Appropriate codes are included in this user guide. Many improvements that have been incorporated into Version 5.0 are the result of suggestions made by participating fire departments, State agencies, and the National Fire Information Council (NFIC).

INTRODUCTION

The type and content of data collected by NFIRS 5.0 have evolved over more than 25 years and are based on the participation of all 50 States and more than 40 metropolitan fire departments. NFIRS 5.0 captures information on all incidents to which a fire department responds. In addition to many data coding improvements, Version 5.0 provides five new modules that recognize the increasingly diverse activities of fire departments today: an EMS Module, a Wildland Fire Module, an Apparatus Module, a Personnel Module, and an Arson Module. Other modules have been extensively revised.

The modular design of NFIRS 5.0 makes the system easier to use than previous NFIRS versions because it captures only the data required to profile the extent of the incident. Some fires, for example, require just basic information, whereas others require considerably more detail. The accuracy and reliability of the collected data are improved because of the way questions are asked and data are coded.

The selection of data elements and the coding selections for the data have been revised to reduce confusion or improve data quality. For example, codes using 9 to indicate “not otherwise classified” have been changed to the value of 0 (zero) where it may be necessary to code something as “other.” The internal codes for “insufficient information to classify further” have been eliminated. A single code of “U” (or “UU” or “UUU” depending on field size) is available to designate “unknown” or “undetermined.” Although NFIRS Version 4.1 allowed a distinction between the 9 code (“not otherwise classified”) and the 0 code (“insufficient information to classify further”), the distinction between these codes was often unclear to the respondent.

Other improvements incorporated in NFIRS 5.0 include:

- Compound data elements have been eliminated. Some of the previous data elements asked for multiple pieces of information. NFIRS 5.0 splits these data elements into single-issue questions to eliminate often confusing and ambiguous or incorrect answers. Although this increased the number of fields or questions being asked, the choices are clearer and the number of codes has decreased. For example, “Equipment Involved in Ignition” in Version 4.1 is a complex list of equipment that not only identifies the equipment, but also includes data on its power source and portability. Version 5.0 has three categories (Equipment, Equipment Portability, and Equipment Power Source) that makes coding easier, more accurate, and more specific.
- Contained, no-loss fires are simply reported using only the Basic Module, with as few as three codes having to be looked up and entered when using the paper forms.
- Small spills of common hazardous materials are documented only in the Basic Module instead of requiring the fire department to complete all the details that are necessary for spills that are more significant. Detailed information is completed on the HazMat Module (NFIRS-7) if a serious release of hazardous materials occurs.
- Reporting the failures of protective clothing and equipment worn or used by firefighters has been simplified to focus only on items whose failure contributed to a casualty (i.e., injury or fatality).

For convenience to users familiar with the codes of NFIRS 4.1, references are provided in this guide to the titles of the NFIRS 4.1 code lists that have changed in NFIRS 5.0.

Benefits of NFIRS to Firefighters

Firefighters will find that NFIRS 5.0 is easier to use than previous versions. Also, two of the new modules, Apparatus and Personnel, will assist fire departments in managing apparatus, personnel, and resources.

Each fire department is responsible for planning and managing its operations so that firefighters can perform their roles of fire control and fire prevention most effectively and efficiently. The availability of accurate information about fires and other incidents is vital in achieving maximum performance. Patterns that emerge from the analysis of incident data can help departments focus on current problems, predict future problems in their communities, and measure their programs' performance.

Coding

In 1963, NFPA formed a technical committee to devise a uniform system of fire reporting to encourage fire departments to use a common set of definitions. NFPA 901, *Standard Classifications for Incident Reporting and Fire Protection Data*, was developed as a dictionary of fire terminology and associated numerical codes. As the fire service gained experience with this fire data “language,” continuous improvements have been possible. The set of codes used in NFIRS 5.0 represents the merging of the ideas from NFPA 901 with the many suggested improvements from users of the NFIRS 4.1 coding system.

Structure of the User Guide

Chapter 2 briefly describes the 11 NFIRS modules, provides general guidance on when each module should be used, and details standard conventions that are to be used when completing these modules. Chapters 3 through 13 cover NFIRS modules 1 through 11, respectively, in detail. Guidance is provided on how each field of the module form should be completed and defines the codes that are used in the system. Chapter 14 addresses information that might be submitted on a supplemental form (NFIRS–1S). Full-size replicas of all NFIRS forms are found in Appendix A.

Appendix B is an index of NFIRS 5.0 synonyms of selected code lists that have been alphabetized. Appendix C is a glossary of terms and abbreviations. Appendix D is an alphabetized listing of chemicals and hazardous materials.

Chapter 2

NFIRS 5.0 MODULES

Chapter 2 • NFIRS 5.0 Modules

NFIRS Version 5.0 consists of 11 modules. The Basic Module is to be completed for every incident, with additional modules used as appropriate to describe the incident.

Description of Modules

The **Basic Module** (NFIRS-1) captures general information on every incident (or emergency call) to which the department responds.

THE FOLLOWING MODULES ARE USED IN CONJUNCTION WITH THE BASIC MODULE, WHICH MUST BE COMPLETED FOR EVERY INCIDENT TO WHICH YOUR DEPARTMENT RESPONDS

The **Fire Module** (NFIRS-2) is used to describe each fire incident to which the department responds. For wildland fire incidents, the Wildland Module can be used instead of the Fire Module if that option is available by your State reporting authority.

The **Structure Fire Module** (NFIRS-3) is used to describe each structure fire to which the department responds. This module is used in conjunction with the Fire Module.

The **Civilian Fire Casualty Module** (NFIRS-4) is used to report injuries or deaths to civilians or other emergency personnel (e.g., police officers, non-fire department/EMS personnel) that are related to a fire incident. This module is used in conjunction with the Fire Module and, if applicable, the Structure Fire Module. Non-fire-related injuries or deaths to civilians can be reported on the EMS Module.

The **Fire Service Casualty Module** (NFIRS-5) is used to report injuries and deaths of firefighters. The module can also be used to report the exposure of a firefighter to chemicals or biological agents at an incident where that exposure does not result in any symptoms at that time but that manifest themselves at a later date. This module may be used with any of the other modules.

THE FOLLOWING MODULES (NFIRS-6 THROUGH -11) ARE OPTIONAL MODULES THAT ARE USED ONLY WHEN THAT OPTION(S) IS SELECTED BY YOUR STATE REPORTING AUTHORITY

The **EMS Module** (NFIRS-6) is completed by fire departments that provide emergency medical services. The module is used to report all medical incidents where the department provided the primary patient care. This includes incidents where there were civilian fire-related casualties and a Civilian Fire Casualty Module was completed and where there were firefighter fire-related casualties and a Fire Service Casualty Module was completed. (This module does not serve as a patient care record, but it can be used in conjunction with the local requirements for patient care.)

The **Hazardous Materials Module** (NFIRS-7) is completed to report spills or releases of 55 gallons or more of hazardous materials or when special HazMat actions were taken. As appropriate, the module is used in conjunction with the Fire Module or other modules to provide detailed information about incidents involving hazardous materials.

The **Wildland Fire Module** (NFIRS-8) is completed to report incidents that involve wildland or vegetation fires. The module is used in lieu of the Fire Module for wildland fire incidents.

The **Apparatus or Resources Module** (NFIRS-9), a department-use module, is completed to report data specific to each piece of apparatus that responds to an incident. It includes information that can be used to calculate response time and time out of service. This module is not used if the Personnel Module is used.

The **Personnel Module** (NFIRS-10), a department-use module, is completed to report the same information as on the Apparatus or Resources Module, but it also provides for tracking the personnel associated with that apparatus.

The **Arson Module** (NFIRS-11) is completed to report additional information on fires that have been coded by the department as “intentionally set.”

In addition to the 11 modules, a **Supplemental Form** (NFIRS-1S) can be used to report information on additional persons and entities involved in the incident and to collect additional special studies fields. This paper-only form extends the amount of information collected in the Basic Module.

Preparation of Modules

Both local and State agencies should establish standard procedures on how to complete the NFIRS reporting modules and how to submit the modules to the State reporting activity. These procedures will help ensure consistency in the data received and provide guidance to those filling out the modules. Each coded field in the on-line NFIRS systems has the capability to be expanded by another alpha-numeric character so that information more specific than the national standard addresses can be collected.

The majority of the information on the modules is obtained at the scene by emergency responder personnel. An emergency responder at the scene should be assigned the responsibility of recording the required information concerning each incident. To gather additional information or to confirm one’s own impressions, the individual completing the module should contact others involved with the incident. Contacts may include on-scene fire service personnel, police and civilians at the scene, the dispatcher, EMS personnel, hospital staff, fire and building inspectors, the arson investigator, the local fire module coordinator, and State-level officials responsible for coordinating the reporting system. Most importantly, the module should reflect exactly what happened.

Once the module has been completed, the information should be reviewed at the local level before it is signed by the officer in charge at the incident and by the individual completing the module. Originals of the modules should be kept for departmental use and files, and copies forwarded to the State that will transmit them to the NFDC.

Modifications to original incident reports can be submitted later when additional information becomes available or if any of the original information changes or is found to be incorrect. A person injured in a fire who dies within 1 year as a result of the injuries is an example of the type of new information that could be cause for submitting a “change report.”

Once computerized, the data can be presented in a variety of ways, such as summaries, comparisons, and reports. The web-based reporting tool made available to NFIRS users by the NFDC is able to produce a variety of reports. Many localities and departments develop data analysis and display programs to meet their own requirements. For more information concerning the new NFIRS 5.0, contact the USFA or visit its Web site at <http://www.usfa.fema.gov/fireservice/nfirs/>

Conventions Used in Completing Modules

Each time a fire service unit moves in response to an alarm, the Basic Module (NFIRS-1) must be completed. One report is completed for each incident. Other modules are completed as appropriate.

A form depicting the data for each module is shown at the beginning of that module’s chapter. The entire set of forms (full-size) is included in Appendix A. The forms are divided into lettered sections, and blocks divide sections. Blocks are formed by the section letter and the number of the block within the section (e.g., Section A, Block A1). The different blocks within a section contain related information. The modules are designed to help emergency personnel report incident information in a straightforward and orderly manner. Many of the codes are printed on the paper modules to expedite the report process. For many situations, however, the correct codes will need to be looked up.

Modules should be completed according to the type of incident being reported. Instruction is given on the module when necessary. *All sections that have a star (☆) by the title are required fields.* Throughout this guide, notes or important considerations are indicated with a pointed finger (☞).

Each module is discussed one section at a time in the chapters that follow. Each item or block in each section is described by its definition, purpose, entry, and example. In addition, for those items requiring a numerical code, the codes and a coded example are shown.

- The *definition* provides a common meaning for all, which ensures consistency in understanding and application.
- The *purpose* gives a brief explanation as to why the information has been requested; it may also indicate how the information could be of additional use.
- The *entry* provides guidance on the type of information to place in the entry block.
- The *example* shows how the entry might look for a particular situation.

Within the data coding used in this system, a few conventions assist in reporting. The letters “N,” “NN,” or “NNN” are used to indicate “none” in a field that is normally coded. The letters “U,” “UU,” or “UUU” are used to indicate “unknown” or “undetermined” in a field that is normally coded. If the field is a numeric field such as dollar loss, 0 (zero) is used to indicate none. Numeric fields such as dollar loss can be left blank if a value is unknown or if the incident is not a fire.

- ☛ The coded field should not be left blank as that is an indication that the person completing the report missed it or forgot to fill it out.

Please note that the numbers “0,” “00,” or “000” are valid codes for many coded fields. These have the value for “other” and are intended to be used where the item or issue being coded is identifiable but the code selection list does not contain the description of what has been identified for that data element. In some data elements, codes ending in “0” allow for further identification of the item or issue, as in the case where part of the answer is known but not enough to code it at the specific level required by the options in the list.

The entry of data into fields should follow the following conventions:

- *Text fields* should be left justified.
- *Numeric fields* should be right justified.
- *Coded fields* do not need to be justified since they should fit the entry space exactly.

Fire Department Header

Before data may be entered into NFIRS 5.0, each fire department must have established a header record. This record is established only once in the system and then updated whenever there is a change in the department’s information.

- ☛ Creation of or changes to the header record must be reviewed or approved by each department’s State NFIRS program manager.

As a rule of thumb, if a department has a Fire Department Identification (FDID) number, a header has already been established. Most of the existing records were created from the conversion of NFIRS 4.1 header records at the State level; however, many of the fields may be blank because they are new to NFIRS 5.0. It is recommended that each department review their header record to ensure completeness.

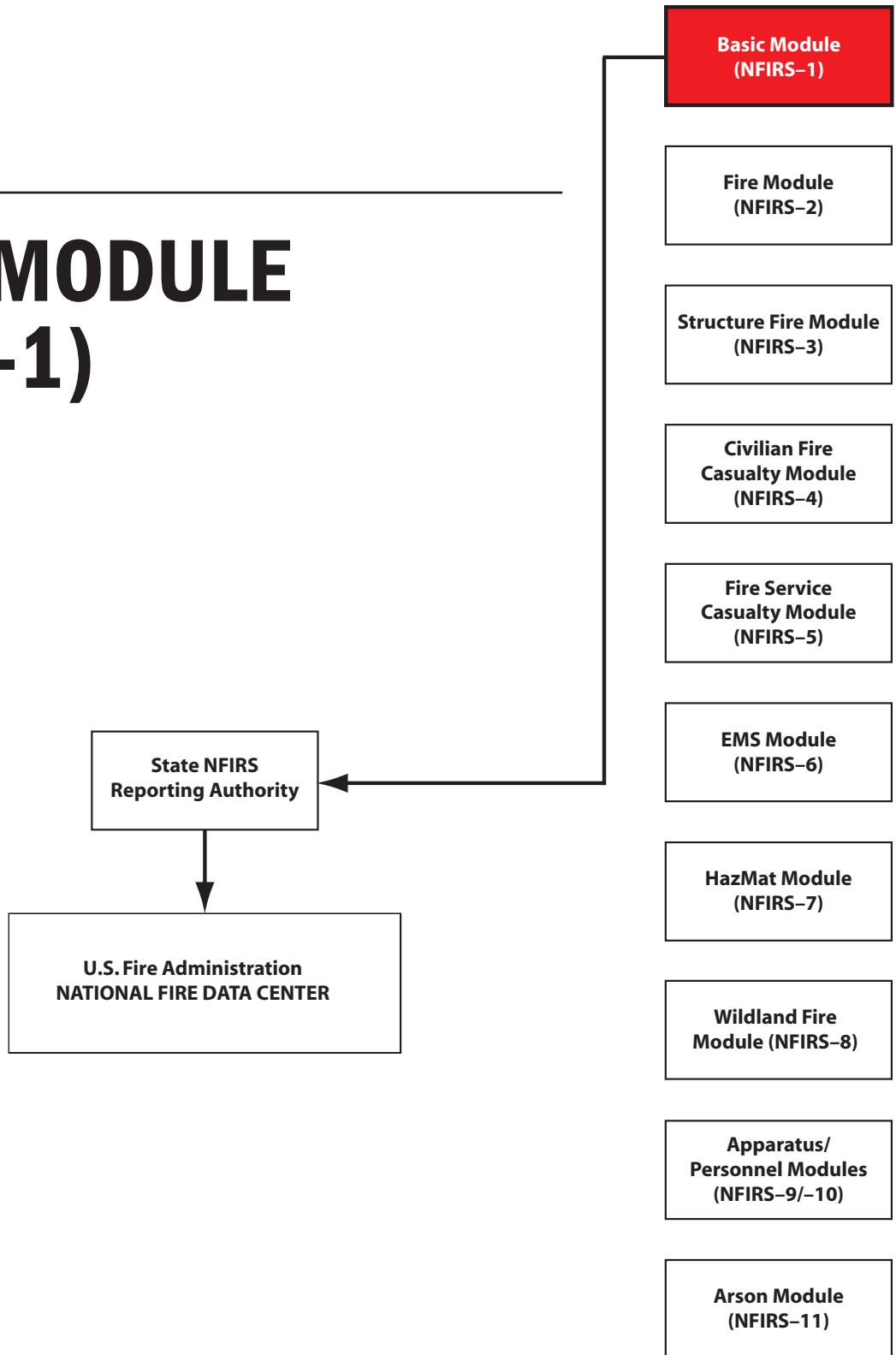
The table on the following page shows the fire department header fields:

| FIELD NAME | FIELD TYPE | FIELD LENGTH |
|--|------------|--------------|
| Fire Department Identification* | Text | 5 |
| Fire Department State* | Coded | 2 |
| Record Type | Numeric | 5 |
| Transaction Type | Coded | 1 |
| Fire Department Name | Text | 30 |
| Fire Department Street Number or Milepost* | Text | 8 |
| Fire Department Street Prefix* | Coded | 2 |
| Fire Department Street or Highway Name* | Text | 30 |
| Fire Department Street Type* | Coded | 4 |
| Fire Department Street Suffix* | Coded | 2 |
| Fire Department City* | Text | 20 |
| Fire Department ZIP* | Numeric | 9 |
| Fire Department Phone | Numeric | 10 |
| Fire Department Fax | Numeric | 10 |
| Fire Department E-Mail | Text | 45 |
| Fire Department FIPS County Code | Text | 3 |
| Number of Stations | Numeric | 3 |
| Number of Paid Firefighters | Numeric | 4 |
| Number of Volunteer Firefighters | Numeric | 4 |
| Number of Volunteer Paid Per Call | Numeric | 4 |

*Definitions and abbreviations for these fields are presented in Chapter 3, Sections A and B.

Chapter 3

BASIC MODULE (NFIRS-1)



A FDID Star State Star Incident Date Star MM DD YYYY Station Incident Number Star Exposure Star

Delete Change No Activity **NFIRS-1 Basic**

B Location Type Star Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. Census Tract _____

Street address
 Intersection
 In front of Number/Milepost Prefix Street or Highway Street Type Suffix
 Rear of
 Adjacent to Apt./Suite/Room City State ZIP Code
 Directions
 U.S. National Grid Cross Street, Directions or National Grid, as applicable

C Incident Type Star Incident Type _____

D Aid Given or Received Star None

1 Mutual aid received
 2 Auto. aid received
 3 Mutual aid given Their FDID Their State
 4 Auto. aid given
 5 Other aid given Their Incident Number

E1 Dates and Times Midnight is 0000
 Check boxes if dates are the same as Alarm Date.
 Alarm Star Month Day Year Hour Min
 ARRIVAL required, unless canceled or did not arrive
 Arrival Star
 CONTROLLED optional, except for wildland fires
 Controlled
 Last Unit Cleared Star
 LAST UNIT CLEARED, required except for wildland fires

E2 Shifts and Alarms Local Option
 Shift or Platoon Alarms District

E3 Special Studies Local Option
 Special Study ID# Special Study Value

F Actions Taken Star
 Primary Action Taken (1)
 Additional Action Taken (2)
 Additional Action Taken (3)

G1 Resources Star
 Check this box and skip this block if an Apparatus or Personnel Module is used.
 Apparatus Personnel
 Suppression
 EMS
 Other
 Check box if resource counts include aid received resources.

G2 Estimated Dollar Losses and Values
 Required for all fires if known. Optional for non-fires. None
 LOSSES: Property \$ Contents \$
 PRE-INCIDENT VALUE: Optional
 Property \$ Contents \$

Completed Modules
 Fire-2
 Structure Fire-3
 Civilian Fire Cas.-4
 Fire Service Cas.-5
 EMS-6
 HazMat-7
 Wildland Fire-8
 Apparatus-9
 Personnel-10
 Arson-11

H1 Casualties None
 Deaths Injuries
 Fire Service Civilian
H2 Detector Required for confined fires.
 1 Detector alerted occupants
 2 Detector did not alert them
 U Unknown

H3 Hazardous Materials Release None
 1 Natural gas: slow leak, no evacuation or HazMat actions
 2 Propane gas: <21-lb tank (as in home BBQ grill)
 3 Gasoline: vehicle fuel tank or portable container
 4 Kerosene: fuel burning equipment or portable storage
 5 Diesel fuel/fuel oil: vehicle fuel tank or portable storage
 6 Household solvents: home/office spill, cleanup only
 7 Motor oil: from engine or portable container
 8 Paint: from paint cans totaling <55 gallons
 0 Other: special HazMat actions required or spill > 55 gal (Please complete the HazMat form.)

I Mixed Use Property Not mixed
 10 Assembly use
 20 Education use
 33 Medical use
 40 Residential use
 51 Row of stores
 53 Enclosed mall
 58 Business & residential
 59 Office use
 60 Industrial use
 63 Military use
 65 Farm use
 00 Other mixed use

J Property Use Star None
Structures
 131 Church, place of worship
 161 Restaurant or cafeteria
 162 Bar/Tavern or nightclub
 213 Elementary school, kindergarten
 215 High school, junior high
 241 College, adult education
 311 Nursing home
 331 Hospital
Outside
 124 Playground or park
 655 Crops or orchard
 669 Forest (timberland)
 807 Outdoor storage area
 919 Dump or sanitary landfill
 931 Open land or field
 341 Clinic, clinic-type infirmary
 342 Doctor/Dentist office
 361 Prison or jail, not juvenile
 419 1- or 2-family dwelling
 429 Multifamily dwelling
 439 Rooming/Boarding house
 449 Commercial hotel or motel
 459 Residential, board and care
 464 Dormitory/Barracks
 519 Food and beverage sales
 936 Vacant lot
 938 Graded/Cared for plot of land
 946 Lake, river, stream
 951 Railroad right-of-way
 960 Other street
 961 Highway/Divided highway
 962 Residential street/driveway
 539 Household goods, sales, repairs
 571 Gas or service station
 579 Motor vehicle/boat sales/repairs
 599 Business office
 615 Electric-generating plant
 629 Laboratory/Science laboratory
 700 Manufacturing plant
 819 Livestock/Poultry storage (barn)
 882 Non-residential parking garage
 891 Warehouse
 981 Construction site
 984 Industrial plant yard

Look up and enter a Property Use code and description only if you have NOT checked a Property Use box.
 Property Use Description Code

NFIRS-1 Revision 01/01/05

K1 Person/Entity Involved

Local Option

Business Name (if applicable)

Area Code

Phone Number

Check this box if same address as incident location (Section B). Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix



Post Office Box Apt./Suite/Room City

State ZIP Code

More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

K2 Owner

Local Option

Same as person involved? Then check this box and skip the rest of this block.

Business Name (if applicable)

Area Code

Phone Number

Check this box if same address as incident location (Section B). Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix



Post Office Box Apt./Suite/Room City

State ZIP Code



Remarks:

Local Option

Fire Module Required?

Check the box that applies and then complete the Fire Module based on Incident Type, as follows:

- Buildings 111 Complete Fire & Structure Modules
- Special structure 112 Complete Fire Module & Section I, Structure Module
- Confined 113-118 Basic Module Only
- Mobile property 120-123 Complete Fire & Structure Modules
- Vehicle 130-138 Complete Fire Module
- Vegetation 140-143 Complete Fire or Wildland Module
- Outside rubbish fire 150-155 Basic Module Only
- Special outside fire 160 Complete Fire or Wildland Module
- Special outside fire 161-164 Complete Fire Module
- Crop fire 170-173 Complete Fire or Wildland Module



ITEMS WITH A ☆ MUST ALWAYS BE COMPLETED!

More remarks? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

M Authorization

Check box if same as Officer in charge.

Officer in charge ID Signature Position or rank Assignment Month Day Year

Member making report ID Signature Position or rank Assignment Month Day Year

Chapter 3 • Basic Module (NFIRS-1)

The purpose of the Basic Module is to collect information common to all incidents. **The Basic Module is required for every type of incident to which a department responds.**

Entries in the Basic Module determine what other modules need to be completed based on the type of incident involved. For example, fire incidents are also reported on the Fire Module (NFIRS-2). Additionally, the Structure Fire Module (NFIRS-3) is required if the fire reported in the Fire Module occurs in a structure.

A separate Civilian Fire Casualty Module (NFIRS-4) is required for each civilian who is injured as a direct result of a fire incident. A separate Fire Service Casualty Module (NFIRS-5) is required for each firefighter who is injured in response to an alarm whether or not a fire was involved.

Optional modules include the EMS, HazMat, Wildland Fire, Apparatus and Personnel, and Arson Modules. The type of incident reported or the nature of a particular incident, such as the release of hazardous materials at a fire after the arrival of the fire department, may trigger one or more of these additional modules. The amount of information needed in each module varies based on the type of incident, associated casualties, and property losses.

SECTION A

The field elements in Section A that are marked with a star (☆) are required to be completed. Combined, these fields (FDIC, State, Incident Date, Incident Number, and Exposure) uniquely identify each incident.

A Fire Department Identification (FDID) ☆

Definition

A unique five-character identifier assigned by the State to identify a particular fire department within the State. This identifier may also identify the county, fire district, or other jurisdiction in which the fire department is located. Many States use the two left-most digits to identify the particular department within a jurisdiction. All five spaces in this field must be occupied by numerals or alphanumeric characters. If the FDID is less than five characters, use leading zeros.

Purpose

The FDID number is used to identify incident data that have been collected and reported by individual departments. Feedback on local or regional incident experience can then be prepared and sent to individual agencies or specific fire departments.

Entry

Enter the State-assigned FDID.

Example

An FDID of 07434 is entered as:

| | | | | | | | | | | | |
|----------|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------------------|
| A | <input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="4"/> <input type="text" value="3"/> <input type="text" value="4"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> Delete |
| | FDID ☆ | State ☆ | MM | DD | YYYY | Incident Date ☆ | Station | Incident Number ☆ | Exposure | ☆ | <input type="checkbox"/> Change |
| | | | | | | | | | | | <input type="checkbox"/> No Activity |

State ☆

Definition

The State (or U.S. territory) where the fire department is located.

Purpose

This field provides an additional means of identifying a fire department, and in conjunction with other required Section A fields, uniquely identifies each incident.

Entry

Enter the two-digit alphabetic abbreviation from the following list for the State where the fire department is located:

| STATE/U.S. TERRITORY CODES | | | | | |
|------------------------------|--------------------------------|----|----------------------------------|----|-----------------------------|
| AL | Alabama | KY | Kentucky | ND | North Dakota |
| AK | Alaska | LA | Louisiana | OH | Ohio |
| AZ | Arizona | ME | Maine | OK | Oklahoma |
| AR | Arkansas | MD | Maryland | OR | Oregon |
| CA | California | MA | Massachusetts | PA | Pennsylvania |
| CO | Colorado | MI | Michigan | RI | Rhode Island |
| CT | Connecticut | MN | Minnesota | SC | South Carolina |
| DE | Delaware | MS | Mississippi | SD | South Dakota |
| DC | District of Columbia | MO | Missouri | TN | Tennessee |
| FL | Florida | MT | Montana | TX | Texas |
| GA | Georgia | NE | Nebraska | UT | Utah |
| HI | Hawaii | NV | Nevada | VT | Vermont |
| ID | Idaho | NH | New Hampshire | VA | Virginia |
| IL | Illinois | NJ | New Jersey | WA | Washington |
| IN | Indiana | NM | New Mexico | WV | West Virginia |
| IA | Iowa | NY | New York | WI | Wisconsin |
| KS | Kansas | NC | North Carolina | WY | Wyoming |
| U.S. TERRITORIES/POSSESSIONS | | | | | |
| AS | American Samoa | GU | Guam | PR | Puerto Rico |
| CZ | Canal Zone | MH | Marshall Islands | UM | U.S. Minor Outlying Islands |
| DD | Department of Defense | MP | Northern Mariana Islands | VI | Virgin Islands |
| FM | Federated States of Micronesia | PW | Palau | | |
| NON-STATE REPORTING ENTITIES | | | | | |
| DD | Department of Defense | NA | Native American Tribal Authority | OO | Other |

The ☆ denotes a required field.

Example

Virginia is entered as VA:

| | | | | | | | |
|----------|---------------------|----------------|-------------------------------|---------|-------------------|------------|--|
| A | 0 7 4 3 4 FDID ☆ | V A State ☆ | MM DD YYYY Incident Date ☆ | Station | Incident Number ☆ | Exposure ☆ | <input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity |
|----------|---------------------|----------------|-------------------------------|---------|-------------------|------------|--|

Incident Date ☆

Definition

The month, day, and year of the incident. This date is when the alarm was received by the fire department and must be the same as the date for the alarm time.

Purpose

In conjunction with other required Section A fields, this element uniquely identifies each incident.

Entry

Enter the month, day, and year (mm/dd/yyyy) that the initial incident alarm was received by the department. It must be entered for each incident.

- ☛ The Incident Date is the same as the Alarm date (Block E1), except if the incident is an exposure and the exposure occurs on a subsequent day.

Example

An incident occurs and is reported on December 12, 2001:

| | | | | | | | |
|----------|---------------------|----------------|------------------------------------|---------|-------------------|------------|--|
| A | 0 7 4 3 4 FDID ☆ | V A State ☆ | 1 2 1 2 2 0 0 1 Incident Date ☆ | Station | Incident Number ☆ | Exposure ☆ | <input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity |
|----------|---------------------|----------------|------------------------------------|---------|-------------------|------------|--|

Station

Definition

The number or identifier of a particular fire station within a fire department. This is a local option.

Purpose

The station number provides a means of tracking incident data that have been collected and reported by individual stations. Specific feedback on incident experience can then be prepared and sent to individual stations. The station number is also useful for analyzing different levels of activity within a fire department.

Entry

Enter the station number in the space provided. The fire department should determine which station number should be entered (e.g., first arriving unit, station's area). The station number is left justified. Leave blank if there is only one station in the department.

Example

Station 13 is entered as:

| | | | | | | | | | |
|----------|-----------------------------|--------------------|-------------|-------------|-----------------------|--------------------|-------------------|------------|--|
| A | 0 7 4 3 4 FDID ☆ | V A State ☆ | MM 1 2 | DD 1 2 | YYYY 2 0 0 1 | A 3 Station | Incident Number ☆ | Exposure ☆ | <input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity |
|----------|-----------------------------|--------------------|-------------|-------------|-----------------------|--------------------|-------------------|------------|--|

Incident Number ☆

Definition

A unique number assigned to an incident.

- ☛ The Incident Number is a sequential number and is numeric only; it is not an incident identification number.

Purpose

In conjunction with other required Section A fields, this element uniquely identifies each incident.

Entry

Enter the number assigned to the incident. The number may be assigned at the local, county, or district level, depending on policies. It may be necessary to obtain this number from an alarm or dispatch center. It must be unique for each incident on a given day.

Example

A call with an incident number of 72672 is entered as:

| | | | | | | | | | |
|----------|-----------------------------|--------------------|-------------|-------------|-----------------------|--------------------|--|------------|--|
| A | 0 7 4 3 4 FDID ☆ | V A State ☆ | MM 1 2 | DD 1 2 | YYYY 2 0 0 1 | A 3 Station | 7 2 6 7 2 Incident Number ☆ | Exposure ☆ | <input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity |
|----------|-----------------------------|--------------------|-------------|-------------|-----------------------|--------------------|--|------------|--|

Exposure Number ☆

Definition

Exposure is defined as a fire resulting from another fire outside that building, structure, or vehicle, or a fire that extends to an outside property from a building, structure, or vehicle. For example, if the building fire ignites a truck parked outside, the truck fire is an exposure fire.

- ☛ In the case of buildings with internal fire separations, treat the fire spread from one separation to another as an exposure. Treating multiple ownership of property within a building (e.g., condominiums) as exposures, unless separated by fire-rated compartments, is discouraged.

Purpose

Although the Incident Number permits all properties involved in a fire incident to be related together, the Exposure Number identifies each separate property type involved in the fire. This makes it possible to capture the specific details of the fire in each exposure and to relate all the exposures to the basic incident, if necessary. The Exposure Number, in conjunction with other required Section A fields, uniquely identifies each incident itemized in Section C.

When a fire involves more than one building, each building fire should be considered a separate fire, with the ignition for all but the original building fire classified as exposure fires.

Entry

In a fire involving exposures, an additional Basic Module should be completed for each exposure. Each module completed for an exposure should contain the same Incident Number assigned to the original property involved. A separate sequential Exposure Number is assigned to each exposure. The original incident is always coded “000,” and exposures are numbered sequentially and incremented by 1 beginning with “001.” The three-character numeric field is zero filled, not right justified.

- ☛ The Incident Date for each exposure remains the same as that of the basic incident; however, the Alarm Time in Block E1 should reflect the time of each new exposure.

The relevant data for each exposure should then be recorded using the appropriate modules.

- ☛ Treat similar items in a group as a single exposure (such as a fleet of cars).
- ☛ Be sure to check or mark the exposure fire check box Cause of Ignition (Block E1) on the Fire Module for each exposure fire, and then skip to Section G on the Fire Module.

Example

The first exposure fire is entered as 001:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------|---------|-----------------|---|----|----|------|---------|-------------------|---|---|---|---|------------|---------------------------------|--------------------------------------|---|--|--|---|---|---|---|---|---|---|---|---------------------------------|
| A | 0 | 7 | 4 | 3 | 4 | V | A | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | A | 3 | | | 7 | 2 | 6 | 7 | 2 | 0 | 0 | 1 | <input type="checkbox"/> Delete |
| | FDID ☆ | State ☆ | Incident Date ☆ | | MM | DD | YYYY | Station | Incident Number ☆ | | | | | Exposure ☆ | <input type="checkbox"/> Change | <input type="checkbox"/> No Activity | | | | | | | | | | | | |

Delete/Change/No Activity

When filling out the Basic Module for a new incident, leave the Delete/Change/No Activity boxes blank.

Definition

Indicates a change to information submitted on a previous Basic Module, signifies the deletion of incorrect information, or reports no activity. The officer who signed the original Basic Module report should authorize changes or deletions.

Purpose

These boxes indicate whether previously provided information is to be changed or deleted or to report that no activity occurred during a reporting period.

The ☆ denotes a required field.

Entry

Delete: Check or mark this box when you have previously submitted data on this incident and now want to have the data on this incident deleted from the database. If this box is marked, complete Section A and leave the rest of the report blank. This will delete all data regarding the incident. Forward the report according to your normally established procedures.

Change: Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

No Activity: If the fire department has had no incidents during the month, a no activity report should be submitted. Unless otherwise specified by the State, this report should be submitted monthly according to your normally established procedures.

Examples

Deleting a previously submitted incident:

Check or mark the Delete box and complete all other fields in Section A exactly as they were entered in the original report.

Changing a previously submitted incident:

It was incorrectly reported that six firefighters responded to a fire incident. Later, the officer in charge corrected the information and sent in a Change report with four fire service personnel responding:

| | | | | | | | | | |
|----------|-------------------|---------|-------|-------|---------------|---------|-------------------|------------|--|
| A | 0 7 4 3 4 | V A | MM | DD | YYYY | A 3 | 7 2 6 7 2 | 0 0 1 | <input type="checkbox"/> Delete |
| | FDID ☆ | State ☆ | 1 2 | 1 2 | 2 0 0 1 | Station | Incident Number ☆ | Exposure ☆ | <input checked="" type="checkbox"/> Change |
| | | | | | | | | | <input type="checkbox"/> No Activity |

The Change box is checked or marked and Block G1 would look like the following example:

| | |
|--------------------------|---|
| G1 | Resources ☆ |
| <input type="checkbox"/> | Check this box and skip this block if an Apparatus or Personnel Module is used. |
| | Apparatus Personnel |
| Suppression | 4 |
| EMS | |
| Other | |
| <input type="checkbox"/> | Check box if resource counts include aid received resources. |

Submitting a report of No Activity:

Check or mark the No Activity box and fill both the Incident Number and the Exposure fields with zeros. The Incident Date fields correspond to the last day of the month of no activity:

| | | | | | | | | | |
|----------|----------------------|-----------------|-----------|-----------|-----------------|-----------------|-------------------------------------|----------------------|---|
| A | 0 7 4 3 4 FDID ☆ | V A State ☆ | MM 0 6 | DD 3 0 | YYYY 2 0 0 3 | A 3 Station | 0 0 0 0 0 0 0 Incident Number ☆ | 0 0 0 Exposure ☆ | <input type="checkbox"/> Delete <input type="checkbox"/> Change <input checked="" type="checkbox"/> No Activity |
|----------|----------------------|-----------------|-----------|-----------|-----------------|-----------------|-------------------------------------|----------------------|---|

SECTION B

Section B collects information on the specific incident location.

- The check box at the top of the section should be checked or marked only if the incident address is provided on the Wildland Fire Module (NFIRS-8). The Wildland Fire Module provides an alternative method of recording the incident location.

B Location Type ☆

The location of the incident, which may be a street address, directions from a recognized landmark, or an intersection of two roadways.

Purpose

The exact location of the incident is used for spatial analyses and response planning that can be linked to demographic data. Incident address information is required at the local government level to establish an official document of record.

Entry

Check or mark the single box that best indicates the address type that will be entered. If the incident is a wildland fire, the alternate address box at the top of Section B may be checked or marked to indicate that the wildland location scheme is provided in the Wildland Fire module.

Street address: A normal street address. Check or mark this box and complete the address fields.

Intersection: There is no street address. The incident location is at the intersection of two or more streets, roads, etc. Check or mark this box and enter the first street in the Street or Highway field. The intersecting street(s) is entered in the Cross Street or Directions field.

In front of: No street address is available. However, the incident location is in front of an area with a street address. Check or mark this box and complete the address fields. An example of this might be a park, plaza, or common area in front of a building with a street address.

Rear of: No street address is available. However, the incident location is in the rear of an area with a street address. Check or mark this box and complete the address fields. An example of this might be an alley that runs behind a building with a street address.

Adjacent to: No street address is available. However, the incident location is adjacent to an area with a street address. Check or mark this box and complete the address fields. An example of this might be an empty lot or common area that is next to a building with a street address.

Directions: No street address is available and no street address is available near the incident scene. Check or mark this box and enter brief directions for the location of the incident in the Cross Street or Directions field. If the area is along an interstate or State highway, the closest milepost should be entered in the Number/Milepost address field. An example of this might be a brush fire that occurs in a remote area or a fire that occurs on or near an interstate highway.

United States National Grid: Provides a geospatial address based on universally defined coordinate and grid systems and a common frame of reference across multiple jurisdictions easily extended world-wide. Using an alpha-numeric reference that overlays the UTM (q.v.) coordinate system, USNG spatial addresses break down into three parts: Grid Zone Designation, for a world-wide unique address; 100,000-meter Square Identification, for regional areas; Grid Coordinates, for local areas. USNG improves interoperability of location appliances with printed maps through a consistent and preferred geospatial grid reference system. Relates to GPS (q.v.). *Contributed by Tom May. (International).* For more information and examples on use, see: <http://www.xyproject.org/How%20To%20Read%20USNGHow%20to%20read%20USNG.htm>

Example

The location of an incident that occurred at the intersection of Gallows Road and Lee Highway is entered as:

| | | | | | | | |
|--|--|---|--------|-------------------|--|---------------|---------|
| B | Location Type ☆ | <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | | Census Tract | | _ _ _ _ - _ _ | |
| | <input type="checkbox"/> Street address | | | | | | |
| | <input checked="" type="checkbox"/> Intersection | _ _ _ | _ | Gallows | | _ _ _ | _ _ |
| | <input type="checkbox"/> In front of | Number/Milepost | Prefix | Street or Highway | | Street Type | Suffix |
| | <input type="checkbox"/> Rear of | | | | | | |
| | <input type="checkbox"/> Adjacent to | _ _ _ / _ _ _ / _ _ | _ _ | | | _ _ | _ _ _ _ |
| | <input type="checkbox"/> Directions | _ _ _ _ | | Lee Highway | | | |
| <input type="checkbox"/> U.S. National Grid | Cross Street, Directions or National Grid, as applicable | | | | | | |

LOCATION TYPE CODES

- 1 Street address
- 2 Intersection
- 3 In front of
- 4 Rear of
- 5 Adjacent to
- 6 Directions
- 7 U.S. National Grid

Census Tract

Definition

The census tract number is a six-digit number assigned by the U.S. Census Bureau that identifies an area of land within the United States. Not all jurisdictions have census tract numbers.

Purpose

This element provides a means to cross-reference geographic and population information that is available from the U.S. Census Bureau to incident data for comparative analysis.

Entry

Enter the census tract number for the property involved in the incident. The right two spaces are always assumed to follow a decimal point. If the incident occurs in an area where a census tract number has not been assigned, leave blank.

- Local planning commissions or zoning commissions may be able to provide census tract numbers or maps for your response area.

Example

A location having a census tract number of 1066.01 is entered as:

| | | | | | | | | |
|---|--|---|--------|-------------------|--|---------------|----------|--------|
| B | Location Type ☆ | <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | | Census Tract | | 1 0 6 6 0 1 | | |
| | <input type="checkbox"/> Street address | | | Gallows | | R D | | |
| | <input checked="" type="checkbox"/> Intersection | Number/Milepost | Prefix | Street or Highway | | Street Type | | Suffix |
| | <input type="checkbox"/> In front of | | | | | | | |
| | <input type="checkbox"/> Rear of | | | | | | | |
| | <input type="checkbox"/> Adjacent to | Apt./Suite/Room | City | | | State | ZIP Code | |
| <input type="checkbox"/> Directions | Lee Highway | | | | | | | |
| <input type="checkbox"/> U.S. National Grid | Cross Street, Directions or National Grid, as applicable | | | | | | | |

Number/Milepost

Definition

The number or milepost of the specific location where the incident occurred.

Purpose

This field further refines the incident address.

Entry

For structures and lots, enter the street number. For highways, railroads, etc., enter the milepost number. For intersections, leave blank. For block addresses, enter the block number. The maximum number of characters available in the Number/Milepost field is 8.

Purpose

This field further refines the incident address. This information can also be useful for identifying local problems, such as checking for multiple incidents at the same address and checking ZIP codes or Census Tract entries.

Entry

Enter the name of the street or highway name in the space provided. The maximum number of characters available in the Street or Highway field is 30.

- ☛ If the involved property is a motor vehicle, boat, or other property in transit, list the nearest address or describe the location where the incident occurred. If necessary, include a sketch in the Remarks section (L). It is important that a person viewing the report know where the incident occurred.
- ☛ If a street type is not listed on the code list on the following page (see “Street Type” below), enter the street type as part of the Street or Highway name.

Example

A grass fire on Wolfrap Road about 1/2 mile east of I-66:

| | | | |
|----------|---|---|---|
| B | <input type="checkbox"/> Location Type ☆ <input type="checkbox"/> Street address <input type="checkbox"/> Intersection <input type="checkbox"/> In front of <input type="checkbox"/> Rear of <input type="checkbox"/> Adjacent to <input checked="" type="checkbox"/> Directions <input type="checkbox"/> U.S. National Grid | <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. Number/Milepost: [] [] Prefix: [] Street or Highway: Wolfrap Apt./Suite/Room: [] [] [] City: [] [] [] [] [] [] State: [] [] ZIP Code: [] [] [] [] [] [] Cross Street, Directions or National Grid, as applicable: 1/2 mile east of I-66 | Census Tract: [] [] [] [] - [] [] Street Type: [R, D,] [] [] Suffix: [] [] |
|----------|---|---|---|

Street Type

Definition

The street type descriptor appearing after a street or highway name.

Purpose

This field further refines the incident address.

Entry

Enter the appropriate Street Type code (established by the U.S. Postal Service) from the list on the following page. If the street type is not listed, enter the street type as part of the Street or Highway name. (See Street or Highway Name above.)

Example

The accident occurred on Walnut Street:

| | | | | | |
|---|--|---|-------------------------------|-------------------------------------|----------------------------------|
| B Location Type ☆ | <input type="checkbox"/> Street address | <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | | Census Tract <input type="text"/> | |
| | <input checked="" type="checkbox"/> Intersection | <input type="text" value="1122"/> | <input type="text" value=""/> | <input type="text" value="Walnut"/> | <input type="text" value="S T"/> |
| | <input type="checkbox"/> In front of | Number/Milepost | Prefix | Street or Highway | Street Type |
| | <input type="checkbox"/> Rear of | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> | <input type="text" value=""/> |
| | <input type="checkbox"/> Adjacent to | Apt./Suite/Room | City | State | ZIP Code |
| <input type="checkbox"/> Directions | <input type="text" value=""/> | | | | |
| <input type="checkbox"/> U.S. National Grid | Cross Street, Directions or National Grid, as applicable | | | | |

| STREET PREFIX CODES | | | | | |
|---------------------|-----------|------|------------|------|---------|
| ALY | Alley | CMN | Common | FLD | Field |
| ANX | Annex | CMNS | Commons | FLDS | Fields |
| ARC | Arcade | COR | Corner | FLT | Flat |
| AVE | Avenue | CORS | Corners | FLTS | Flats |
| BCH | Beach | CT | Court | FRD | Ford |
| BND | Bend | CTS | Courts | FRDS | Fords |
| BLF | Bluff | CV | Cove | FRST | Forest |
| BLFS | Bluffs | CVS | Coves | FRG | Forge |
| BTM | Bottom | CRK | Creek | FRGS | Forges |
| BLVD | Boulevard | CRES | Crescent | FRK | Fork |
| BR | Branch | CRST | Crest | FRKS | Forks |
| BRG | Bridge | XING | Crossing | FT | Fort |
| BRK | Brook | XRD | Crossroad | FWY | Freeway |
| BRKS | Brooks | XRDS | Crossroads | GDN | Garden |
| BG | Burg | CURV | Curve | GDNS | Gardens |
| BGS | Burgs | DL | Dale | GTWY | Gateway |
| BYP | Bypass | DM | Dam | GLN | Glen |
| CP | Camp | DV | Divide | GLNS | Glens |
| CYN | Canyon | DR | Drive | GRN | Green |
| CPE | Cape | DRS | Drives | GRNS | Greens |
| CSWY | Causeway | EST | Estate | GRV | Grove |
| CTR | Center | ESTS | Estates | GRVS | Groves |
| CTRS | Centers | EXPY | Expressway | HBR | Harbor |
| CIR | Circle | EXT | Extension | HBRS | Harbors |
| CIRS | Circles | EXTS | Extensions | HVN | Haven |
| CLF | Cliff | FALL | Fall | HTS | Heights |
| CLFS | Cliffs | FLS | Falls | HWY | Highway |
| CLB | Club | FRY | Ferry | HL | Hill |

| STREET PREFIX CODES (CONT'D) | | | | | |
|------------------------------|-----------|------|----------|------|------------|
| HLS | Hills | OVAL | Oval | SPGS | Springs |
| HOLW | Hollow | PARK | Park | SPUR | Spur |
| INLT | Inlet | PKY | Parkway | SPRS | Spurs |
| IS | Island | PKYS | Parkways | SQ | Square |
| ISS | Islands | PASS | Pass | SQS | Squares |
| ISLE | Isle | PSGE | Passage | STA | Station |
| JCT | Junction | PATH | Path | STRA | Stravenue |
| JCTS | Junctions | PIKE | Pike | STRM | Stream |
| KY | Key | PNE | Pine | ST | Street |
| KYS | Keys | PNES | Pines | STS | Streets |
| KNL | Knoll | PL | Place | SMT | Summit |
| KNLS | Knolls | PLZ | Plaza | TER | Terrace |
| LK | Lake | PT | Point | TRWY | Throughway |
| LKS | Lakes | PTS | Points | TRCE | Trace |
| LNDG | Landing | PRT | Port | TRAK | Track |
| LN | Lane | PRTS | Ports | TRFY | Trafficway |
| LGT | Light | PR | Prairie | TRL | Trail |
| LGTS | Lights | RADL | Radial | TRLR | Trailer |
| LF | Loaf | RAMP | Ramp | TUNL | Tunnel |
| LCK | Lock | RNCH | Ranch | TPKE | Turnpike |
| LCKS | Locks | RPD | Rapid | UPAS | Underpass |
| LDG | Lodge | RPDS | Rapids | UN | Union |
| LOOP | Loop | RST | Rest | UNS | Unions |
| MALL | Mall | RDG | Ridge | VLY | Valley |
| MNR | Manor | RDGS | Ridges | VLYS | Valleys |
| MNRS | Manors | RIV | River | VIA | Viaduct |
| MDW | Meadow | RD | Road | VW | View |
| MDWS | Meadows | RDS | Roads | VWS | Views |
| MEWS | Mews | RT | Route | VLG | Village |
| ML | Mill | ROW | Row | VLGS | Villages |
| MLS | Mills | RUE | Rue | VL | Ville |
| MSN | Mission | RUN | Run | VIS | Vista |
| MTWY | Motorway | SHL | Shoal | WALK | Walk |
| MT | Mount | SHLS | Shoals | WALK | Walks |
| MTN | Mountain | SHR | Shore | WALL | Wall |
| MTNS | Mountains | SHRS | Shores | WAY | Way |
| NCK | Neck | SKWY | Skyway | WL | Well |
| ORCH | Orchard | SPG | Spring | WLS | Wells |

Street Suffix

Definition

The directional descriptor appearing after a street or highway name.

Purpose

This field further refines the incident address.

Entry

Enter the street suffix abbreviation. Leave blank if not applicable.

Example

A grass fire in the rear of 3827 Georgia Avenue East is entered as:

| | | | | | | |
|-------------------------------------|------------------------|--|--|---------------------------------|---------------------------------|--------|
| B | Location Type ☆ | <input type="checkbox"/> | Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | Census Tract | [] [] [] [] - [] [] | |
| <input type="checkbox"/> | Street address | [] [] [] [] | [] [] [] [] | [] [] [] [] [] [] [] [] | [] [] [] [] [] [] [] [] | |
| <input type="checkbox"/> | Intersection | Number/Milepost | Prefix | Street or Highway | Street Type | Suffix |
| <input type="checkbox"/> | In front of | | | | | |
| <input checked="" type="checkbox"/> | Rear of | | | | | |
| <input type="checkbox"/> | Adjacent to | Apt./Suite/Room | City | State | ZIP Code | |
| <input type="checkbox"/> | Directions | | | | | |
| <input type="checkbox"/> | U.S. National Grid | Cross Street, Directions or National Grid, as applicable | | | | |

STREET SUFFIX CODES

| | | | |
|---|-------|----|-----------|
| E | East | NE | Northeast |
| N | North | NW | Northwest |
| S | South | SE | Southeast |
| W | West | SW | Southwest |

Apartment, Suite, or Room

Definition

The number of the specific apartment, suite, or room where the incident occurred.

Purpose

This field further refines the incident address. This number is part of the address information when the incident occurs within an apartment, suite, or identifiable room or area generally rented or leased.

Entry

Enter the apartment, suite, or room number in the space provided (any combination of numbers and letters). Leave blank if not applicable. The maximum number of characters available in the Apartment, Suite, or Room field is 15.

Entry

Enter the alphabetic abbreviation for the State (see page 3-5) where the incident occurred.

Example

North Carolina is entered as NC:

| | | | | | | | |
|--------------------------|-------------------------------------|--|--|------------------------|--|-------------------------|--|
| B Location Type ☆ | <input type="checkbox"/> | Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | | Census Tract | | _ _ _ _ _ _ _ _ _ _ _ _ | |
| | <input checked="" type="checkbox"/> | Street address | | 1482 | | Center | |
| | <input type="checkbox"/> | Intersection | | Number/Milepost Prefix | | D R | |
| | <input type="checkbox"/> | In front of | | Street or Highway | | Street Type Suffix | |
| | <input type="checkbox"/> | Rear of | | | | N C | |
| | <input type="checkbox"/> | Adjacent to | | Apt./Suite/Room City | | State ZIP Code | |
| <input type="checkbox"/> | Directions | | | | | | |
| <input type="checkbox"/> | U.S. National Grid | | Cross Street, Directions or National Grid, as applicable | | | | |

ZIP Code

Definition

The numerical code assigned by the U.S. Postal Service to all U.S. jurisdictions.

Purpose

This field completes the information for identifying the exact incident address, and it provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the local and regional levels.

Entry

Enter the postal ZIP code number for the address of the property involved in the incident. If the last four digits are unknown, leave that field blank.

Example

A house fire occurs in an area with the ZIP code 28602-1109:

| | | | | | | | |
|--------------------------|-------------------------------------|--|--|------------------------|-------------------------------------|-------------------------|--|
| B Location Type ☆ | <input type="checkbox"/> | Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | | Census Tract | | _ _ _ _ _ _ _ _ _ _ _ _ | |
| | <input checked="" type="checkbox"/> | Street address | | 1482 | | Center | |
| | <input type="checkbox"/> | Intersection | | Number/Milepost Prefix | | D R | |
| | <input type="checkbox"/> | In front of | | Street or Highway | | Street Type Suffix | |
| | <input type="checkbox"/> | Rear of | | | | N C | |
| | <input type="checkbox"/> | Adjacent to | | Apt./Suite/Room City | | State ZIP Code | |
| <input type="checkbox"/> | Directions | | | | 2 8 6 0 2 1 1 0 9 | | |
| <input type="checkbox"/> | U.S. National Grid | | Cross Street, Directions or National Grid, as applicable | | | | |

Cross Street, Directions or U.S. National Grid

Use directions only if the location cannot otherwise be identified. Enter USNG coordinates if U.S. National Grid is selected for Location Type.

Definition

The nearest cross street to the incident address or directions from a recognized landmark or the second street name of an intersection if Directions is selected as the Location Type. If U.S. National Grid is selected as the Location Type, enter the USNG address (a geospatial address based on universally defined coordinate and grid systems and a common frame of reference across multiple jurisdictions easily extended world-wide). Using an alpha-numeric reference that overlays the UTM (q.v.) coordinate system, USNG spatial addresses break down into three parts: Grid Zone Designation, for a world-wide unique address; 100,000-meter Square Identification, for regional areas; Grid Coordinates, for local areas.

Purpose

This element helps determine the exact location of the incident. This information may also be useful for identifying local problems, such as checking for multiple incidents at the same location.

Entry

In the space provided, describe the nearest cross street or provide directions from a recognized landmark. The maximum number of characters available in the Cross Street or Directions field is 30. If U. S. National Grid is selected as the Location type, the USNG coordinates of the incident location is entered using 10 digit precision at a minimum. The maximum entry is 15 characters. Note: USNG may also be used to precisely describe the location of a Wildland Fire incident instead of Longitude/Latitude coordinates or Township Ranges

Example

The incident occurred on 10th Street with N Street being the nearest cross street:

| | | | | | | |
|--|--|--------------------------|--|-------------------|---------------|--------|
| B | Location Type ☆ | <input type="checkbox"/> | Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. | Census Tract | _____ - _____ | |
| | <input type="checkbox"/> Street address | _____ | _____ | 10th | _____ | |
| | <input type="checkbox"/> Intersection | _____ | _____ | _____ | _____ | |
| | <input type="checkbox"/> In front of | Number/Milepost | Prefix | Street or Highway | Street Type | Suffix |
| | <input type="checkbox"/> Rear of | _____ | _____ | _____ | _____ | _____ |
| <input type="checkbox"/> Adjacent to | Apt./Suite/Room | City | _____ | State | ZIP Code | |
| <input checked="" type="checkbox"/> Directions | N Street | | | | | |
| <input type="checkbox"/> U.S. National Grid | Cross Street, Directions or National Grid, as applicable | | | | | |

SECTION C

C Incident Type ☆

- ☛ Incident Type was known as *Type of Situation Found* in NFIRS 4.1.

Definition

This is the actual situation that emergency personnel found on the scene when they arrived. These codes include the entire spectrum of fire department activities from fires to EMS to public service.

- ☛ The type of incident reported here is not always the same as the incident type initially dispatched.

Purpose

This critical information identifies the various types of incidents to which the fire department responds and allows the fire department to document the full range of incidents it handles.

This information can be used to analyze the frequency of different types of incidents, provide insight on fire and other incident problems, and identify training needs.

- ☛ This element determines which modules will subsequently be completed.

Entry

Enter the three-digit code and a written description that best describes the type of incident. This entry is generally the type of incident found when emergency personnel arrived at the scene, but if a more serious condition developed after the fire department arrival on the scene, then that incident type should be reported. The codes are organized in a series:

| SERIES | HEADING |
|--------|--|
| 100 | Fire |
| 200 | Overpressure Rupture, Explosion, Overheat (No Fire) |
| 300 | Rescue and Emergency Medical Service (EMS) Incidents |
| 400 | Hazardous Condition (No Fire) |
| 500 | Service Call |
| 600 | Good Intent Call |
| 700 | False Alarm and False Call |
| 800 | Severe Weather and Natural Disaster |
| 900 | Special Incident Type |

- ☛ For incidents involving fire and hazardous materials or fire and EMS, use the fire codes. Always use the lowest numbered series that applies to the incident. You will have an opportunity to describe multiple actions taken later in the report.
- ☛ For vehicle fires on a structure, use the mobile property fire codes (130–138) unless the structure became involved.

- For fires in buildings that are confined to noncombustible containers, use codes 113–118 of the structure fire codes when there is no flame damage beyond the noncombustible container.

Example

Fire in food on the stove that was confined to the pot (113).

| | |
|---------------|-------------------------|
| C | Incident Type ☆ |
| | 113 Food on the stove |
| Incident Type | |

INCIDENT TYPE CODES

Fire. Includes fires out on arrival and gas vapor explosions (with extremely rapid combustion).

Structure fire

- 111 Building fire. Excludes confined fires (113–118).
- 112 Fire in structure, other than in a building. Included are fires on or in piers, quays, or pilings; tunnels or underground connecting structures; bridges, trestles, or overhead elevated structures; transformers, power or utility vaults or equipment; fences; and tents.
- 113 Cooking fire involving the contents of a cooking vessel without fire extension beyond the vessel.
- 114 Chimney or flue fire originating in and confined to a chimney or flue. Excludes fires that extend beyond the chimney (111 or 112).
- 115 Incinerator overload or malfunction, but flames cause no damage outside the incinerator.
- 116 Fuel burner/boiler, delayed ignition or malfunction, where flames cause no damage outside the fire box.
- 117 Commercial compactor fire, confined to contents of compactor. Excluded are home trash compactors.
- 118 Trash or rubbish fire in a structure, with no flame damage to structure or its contents.

Fire in mobile property used as a fixed structure. Includes mobile homes, motor homes, camping trailers.

- 121 Fire in mobile home used as a fixed residence. Includes mobile homes when not in transit and used as a structure for residential purposes; and manufactured homes built on a permanent chassis.
- 122 Fire in a motor home, camper, or recreational vehicle when used as a structure. Includes motor homes when not in transit and used as a structure for residential purposes.
- 123 Fire in a portable building, when used at a fixed location. Includes portable buildings used for commerce, industry, or education and trailers used for commercial purposes.
- 120 Fire in mobile property used as a fixed structure, other.

Mobile property (vehicle) fire. Excludes mobile properties used as a structure (120 series). If a vehicle fire occurs on a bridge and does not damage the bridge, it should be classified as a vehicle fire.

- 131 Passenger vehicle fire. Includes any motorized passenger vehicle, other than a motor home (136) (e.g., pickup trucks, sport utility vehicles, buses).
- 132 Road freight or transport vehicle fire. Includes commercial freight hauling vehicles and contractor vans or trucks. Examples are moving trucks, plumber vans, and delivery trucks.
- 133 Rail vehicle fire. Includes all rail cars, including intermodal containers and passenger cars that are mounted on a rail car.
- 134 Water vehicle fire. Includes boats, barges, hovercraft, and all other vehicles designed for navigation on water.
- 135 Aircraft fire. Includes fires originating in or on an aircraft, regardless of use.
- 136 Self-propelled motor home or recreational vehicle. Includes only self-propelled motor homes or recreational vehicles when being used in a transport mode. Excludes those used for normal residential use (122).
- 137 Camper or recreational vehicle (RV) fire, not self-propelled. Includes trailers. Excludes RVs on blocks or used regularly as a fixed building (122) and the vehicle towing the camper or RV or the campers mounted on pickups (131).

- 138 Off-road vehicle or heavy equipment fire. Includes dirt bikes, specialty off-road vehicles, earth-moving equipment (bulldozers), and farm equipment.
- 130 Mobile property (vehicle) fire, other.

Natural vegetation fire. Excludes crops or plants under cultivation (see 170 series).

- 141 Forest, woods, or wildland fire. Includes fires involving vegetative fuels, other than prescribed fire (632), that occur in an area in which development is essentially nonexistent, except for roads, railroads, power lines, and the like. Also includes forests managed for lumber production and fires involving elevated fuels such as tree branches and crowns. Excludes areas in cultivation for agricultural purposes such as tree farms or crops (17x series).
- 142 Brush or brush-and-grass mixture fire. Includes ground fuels lying on or immediately above the ground such as duff, roots, dead leaves, fine dead wood, and downed logs.
- 143 Grass fire. Includes fire confined to area characterized by grass ground cover, with little or no involvement of other ground fuels; otherwise, see 142.
- 140 Natural vegetation fire, other.

Outside rubbish fire. Includes all rubbish fires outside a structure or vehicle.

- 151 Outside rubbish, trash, or waste fire not included in 152–155. Excludes outside rubbish fires in a container or receptacle (154).
- 152 Garbage dump or sanitary landfill fire.
- 153 Construction or demolition landfill fire.
- 154 Dumpster or other outside trash receptacle fire. Includes waste material from manufacturing or other production processes. Excludes materials that are not rubbish or have salvage value (161 or 162).
- 155 Outside stationary compactor or compacted trash fire. Includes fires where the only material burning is rubbish. Excludes fires where the compactor is damaged (162).
- 150 Outside rubbish fire, other.

Special outside fire. Includes outside fires with definable value. Excludes crops and orchards (170 series).

- 161 Outside storage fire on residential or commercial/industrial property, not rubbish. Includes recyclable materials at dropoff points.
- 162 Outside equipment fire. Includes outside trash compactors, outside HVAC units, and irrigation pumps. Excludes special structures (110 series) and mobile construction equipment (130 series).
- 163 Outside gas or vapor combustion explosion without sustained fire.
- 164 Outside mailbox fire. Includes dropoff boxes for delivery services.
- 160 Special outside fire, other.

Cultivated vegetation, crop fire

- 171 Cultivated grain or crop fire. Includes fires involving corn, wheat, soybeans, rice, and other plants before harvest.
- 172 Cultivated orchard or vineyard fire.
- 173 Cultivated trees or nursery stock fire. Includes fires involving Christmas tree farms and plants under cultivation for transport off-site for ornamental use.
- 170 Cultivated vegetation, crop fire, other.

Fire, other

- 100 Fire, other.

Overpressure Rupture, Explosion, Overheat (No Fire). Excludes steam mistaken for smoke.

Overpressure rupture from steam (no ensuing fire)

- 211 Overpressure rupture of steam pipe or pipeline.
- 212 Overpressure rupture of steam boiler.
- 213 Overpressure rupture of pressure or process vessel from steam.
- 210 Overpressure rupture from steam, other.

Overpressure rupture from air or gas (no ensuing fire). Excludes steam or water vapor.

- 221 Overpressure rupture of air or gas pipe or pipeline.
- 222 Overpressure rupture of boiler from air or gas. Excludes steam-related overpressure ruptures.

- 223 Overpressure rupture of pressure or process vessel from air or gas, not steam.
- 220 Overpressure rupture from air or gas, other.

Overpressure rupture from chemical reaction (no ensuing fire)

- 231 Overpressure rupture of pressure or process vessel from a chemical reaction.

Explosion (no fire)

- 241 Munitions or bomb explosion (no fire). Includes explosions involving military ordnance, dynamite, nitroglycerin, plastic explosives, propellants, and similar agents with a UN classification 1.1 or 1.3. Includes primary and secondary high explosives.
- 242 Blasting agent explosion (no fire). Includes ammonium nitrate and fuel oil (ANFO) mixtures and explosives with a UN Classification 1.5 (also known as blasting agents).
- 243 Fireworks explosion (no fire). Includes all classes of fireworks.
- 244 Dust explosion (no fire).
- 240 Explosion (no fire), other.

Excessive heat, scorch burns with no ignition

- 251 Excessive heat, overheat scorch burns with no ignition. Excludes lightning strikes with no ensuing fire (814).

Overpressure rupture, explosion, overheat, other

- 200 Overpressure rupture, explosion, overheat, other.

Rescue and Emergency Medical Service Incident**Medical assist**

- 311 Medical assist. Includes incidents where medical assistance is provided to another group/agency that has primary EMS responsibility. (Example, providing assistance to another agency-assisting EMS with moving a heavy patient.)

Emergency medical service incident

- 321 EMS call. Includes calls when the patient refuses treatment. Excludes vehicle accident with injury (322) and pedestrian struck (323).
- 322 Motor vehicle accident with injuries. Includes collision with other vehicle, fixed objects, or loss of control resulting in leaving the roadway.
- 323 Motor vehicle/pedestrian accident (MV Ped). Includes any motor vehicle accident involving a pedestrian injury.
- 324 Motor vehicle accident with no injuries.
- 320 Emergency medical service incident, other.

Lock-In

- 331 Lock-in. Includes opening locked vehicles and gaining entry to locked areas for access by caretakers or rescuers, such as a child locked in a bathroom. Excludes lock-outs (511).

Search for lost person

- 341 Search for person on land. Includes lost hikers and children, even where there is an incidental search of local bodies of water, such as a creek or river.
- 342 Search for person in water. Includes shoreline searches incidental to a reported drowning call.
- 343 Search for person underground. Includes caves, mines, tunnels, and the like.
- 340 Search for lost person, other.

Extrication, rescue

- 351 Extrication of victim(s) from building or structure, such as a building collapse. Excludes high-angle rescue (356).
- 352 Extrication of victim(s) from vehicle. Includes rescues from vehicles hanging off a bridge or cliff.
- 353 Removal of victim(s) from stalled elevator.
- 354 Trench/Below-grade rescue.
- 355 Confined space rescue. Includes rescues from the interiors of tanks, including areas with potential for hazardous atmospheres such as silos, wells, and tunnels.
- 356 High-angle rescue. Includes rope rescue and rescues off of structures.
- 357 Extrication of victim(s) from machinery. Includes extrication from farm or industrial equipment.

350 Extrication, rescue, other.

Water and ice-related rescue

361 Swimming/Recreational water areas rescue. Includes pools and ponds. Excludes ice rescue (362).

362 Ice rescue. Includes only cases where victim is stranded on ice or has fallen through ice.

363 Swift-water rescue. Includes flash flood conditions.

364 Surf rescue.

365 Watercraft rescue. Excludes rescues near the shore and in swimming/recreational areas (361). Includes people falling overboard at a significant distance from land.

360 Water and ice-related rescue, other.

Electrical rescue

371 Electrocution or potential electrocution. Excludes people trapped by power lines (372).

372 Trapped by power lines. Includes people trapped by downed or dangling power lines or other energized electrical equipment.

370 Electrical rescue, other.

Rescue or EMS standby

381 Rescue or EMS standby for hazardous conditions. Excludes aircraft standby (462).

Rescue, emergency medical service (EMS) incident, other

300 Rescue and EMS incident, other.

Hazardous Condition (No Fire)

Combustible/Flammable spills and leaks

411 Gasoline or other flammable liquid spill (flash point below 100 degrees F at standard temperature and pressure (Class I)).

412 Gas leak (natural gas or LPG). Excludes gas odors with no source found (671).

413 Oil or other combustible liquid spill (flash point at or above 100 degrees F at standard temperature and pressure (Class II or III)).

410 Combustible and flammable gas or liquid spills or leaks, other.

Chemical release, reaction, or toxic condition

421 Chemical hazard (no spill or leak). Includes the potential for spills or leaks.

422 Chemical spill or leak. Includes unstable, reactive, explosive material.

423 Refrigeration leak. Includes ammonia.

424 Carbon monoxide incident. Excludes incidents with nothing found (736 or 746).

420 Toxic chemical condition, other.

Radioactive condition

431 Radiation leak, radioactive material. Includes release of radiation due to breaching of container or other accidental release.

430 Radioactive condition, other.

Electrical wiring/Equipment problem

441 Heat from short circuit (wiring), defective or worn insulation.

442 Overheated motor or wiring.

443 Breakdown of light ballast.

444 Power line down. Excludes people trapped by downed power lines (372).

445 Arcing, shorted electrical equipment.

440 Electrical wiring/equipment problem, other.

Biological hazard

451 Biological hazard, confirmed or suspected.

Accident, potential accident

461 Building or structure weakened or collapsed. Excludes incidents where people are trapped (351).

462 Aircraft standby. Includes routine standby for takeoff and landing as well as emergency alerts at airports.

463 Vehicle accident, general cleanup. Includes incidents where FD is dispatched after the accident to clear away debris. Excludes extrication from vehicle (352) and flammable liquid spills (411 or 413).

460 Accident, potential accident, other.

Explosive, bomb removal

- 471 Explosive, bomb removal. Includes disarming, rendering safe, and disposing of bombs or suspected devices. Excludes bomb scare (721).

Attempted burning, illegal action

- 481 Attempt to burn. Includes situations in which incendiary devices fail to function.
 482 Threat to burn. Includes verbal threats and persons threatening to set themselves on fire. Excludes an attempted burning (481).
 480 Attempted burning, illegal action, other.

Hazardous condition, other

- 400 Hazardous condition (no fire), other.

Service Call**Person in distress**

- 511 Lock-out. Includes efforts to remove keys from locked vehicles. Excludes lock-ins (331).
 512 Ring or jewelry removal, without transport to hospital. Excludes persons injured (321).
 510 Person in distress, other.

Water problem

- 521 Water (not people) evacuation. Includes the removal of water from basements. Excludes water rescues (360 series).
 522 Water or steam leak. Includes open hydrant. Excludes overpressure ruptures (211).
 520 Water problem, other.

Smoke, odor problem

- 531 Smoke or odor removal. Excludes the removal of any hazardous materials.

Animal problem or rescue

- 541 Animal problem. Includes persons trapped by an animal or an animal on the loose.
 542 Animal rescue.
 540 Animal problem or rescue, other.

Public service assistance

- 551 Assist police or other governmental agency. Includes forcible entry and the provision of lighting.
 552 Police matter. Includes incidents where FD is called to a scene that should be handled by the police.
 553 Public service. Excludes service to governmental agencies (551 or 552).
 554 Assist invalid. Includes incidents where the invalid calls the FD for routine help, such as assisting a person in returning to bed or chair, with no transport or medical treatment given.
 555 Defective elevator, no occupants.
 550 Public service assistance, other.

Unauthorized burning

- 561 Unauthorized burning. Includes fires that are under control and not endangering property.

Cover assignment, standby at fire station, move-up

- 571 Cover assignment, assist other fire agency such as standby at a fire station or move-up.

Service call, other

- 500 Service call, other.

Good Intent Call**Dispatched and canceled en route**

- 611 Dispatched and canceled en route. Incident cleared or canceled prior to arrival of the responding unit. If a unit arrives on the scene, fill out the applicable code.

Wrong location, no emergency found

- 621 Wrong location. Excludes malicious false alarms (710 series).
- 622 No incident found on arrival at dispatch address.

Controlled burning

- 631 Authorized controlled burning. Includes fires that are agricultural in nature and managed by the property owner. Excludes unauthorized controlled burning (561) and prescribed fires (632).
- 632 Prescribed fire. Includes fires ignited by management actions to meet specific objectives and have a written, approved prescribed fire plan prior to ignition. Excludes authorized controlled burning (631).

Vicinity alarm

- 641 Vicinity alarm (incident in other location). For use only when an erroneous report is received for a legitimate incident. Includes separate locations reported for an actual fire and multiple boxes pulled for one fire.

Steam, other gas mistaken for smoke

- 651 Smoke scare, odor of smoke, not steam (652). Excludes gas scares or odors of gas (671).
- 652 Steam, vapor, fog, or dust thought to be smoke.
- 653 Smoke from barbecue or tar kettle (no hostile fire).
- 650 Steam, other gas mistaken for smoke, other.

EMS call where party has been transported

- 661 EMS call where injured party has been transported by a non-fire service agency or left the scene prior to arrival.

HazMat release investigation w/no HazMat found

- 671 Hazardous material release investigation with no hazardous condition found. Includes odor of gas with no leak/gas found.
- 672 Biological hazard investigation with no hazardous condition found.

Good intent call, other

- 600 Good intent call, other.

False Alarm and False Call**Malicious, mischievous false alarm**

- 711 Municipal alarm system, malicious false alarm. Includes alarms transmitted on street fire alarm boxes.
- 712 Direct tie to fire department, malicious false alarm. Includes malicious alarms transmitted via fire alarm system directly tied to the fire department, not via dialed telephone.
- 713 Telephone, malicious false alarm. Includes false alarms transmitted via the public telephone network using the local emergency reporting number of the fire department or another emergency service agency.
- 714 Central station, malicious false alarm. Includes malicious false alarms via a central-station-monitored fire alarm system.
- 715 Local alarm system, malicious false alarm. Includes malicious false alarms reported via telephone or other means as a result of activation of a local fire alarm system.
- 710 Malicious, mischievous false alarm, other.

Bomb scare

- 721 Bomb scare (no bomb).

System or detector malfunction. Includes improper performance of fire alarm system that is not a result of a proper system response to environmental stimuli such as smoke or high heat conditions.

- 731 Sprinkler activated due to the failure or malfunction of the sprinkler system. Includes any failure of sprinkler equipment that leads to sprinkler activation with no fire present. Excludes unintentional operation caused by damage to the sprinkler system (740 series).
- 732 Extinguishing system activation due to malfunction.
- 733 Smoke detector activation due to malfunction.
- 734 Heat detector activation due to malfunction.
- 735 Alarm system activation due to malfunction.
- 736 Carbon monoxide detector activation due to malfunction.
- 730 System or detector malfunction, other.

Unintentional system or detector operation (no fire). Includes tripping an interior device accidentally.

- 741 Sprinkler activation (no fire), unintentional. Includes testing the sprinkler system without fire department notification.
- 742 Extinguishing system activation. Includes testing the extinguishing system without fire department notification.
- 743 Smoke detector activation (no fire), unintentional. Includes proper system responses to environmental stimuli such as non-hostile smoke.
- 744 Detector activation (no fire), unintentional. A result of a proper system response to environmental stimuli such as high heat conditions.
- 745 Alarm system activation (no fire), unintentional.
- 746 Carbon monoxide detector activation (no carbon monoxide detected). Excludes carbon monoxide detector malfunction.
- 740 Unintentional transmission of alarm, other.

Biohazard scare

- 751 Biological hazard, malicious false report.

False alarm and false call, other

- 700 False alarm or false call, other.

Severe Weather and Natural Disaster

- 811 Earthquake assessment, no rescue or other service rendered.
- 812 Flood assessment. Excludes water rescue (360 series).
- 813 Wind storm. Includes tornado, hurricane, or cyclone assessment. No other service rendered.
- 814 Lightning strike (no fire). Includes investigation.
- 815 Severe weather or natural disaster standby.
- 800 Severe weather or natural disaster, other.

Special Incident Type**Citizen complaint**

- 911 Citizen's complaint. Includes reports of code or ordinance violation.

Special type of incident, other

- 900 Special type of incident, other.

SECTION D**D Aid Given or Received ☆****Definition**

Aid given or received, either automatically (i.e., prearranged) or mutually for a specific incident. These actions are defined as:

Aid Received (automatic or mutual): A fire department handles an incident within its jurisdiction with additional manpower or equipment from one or more fire departments outside its jurisdiction. Aid received can be either mutual or automatic aid.

Aid Given (automatic or mutual): A fire department responds into another fire department's jurisdiction to provide assistance at an incident or to cover a vacated station while the receiving fire department is busy at an incident. Aid given can be either mutual or automatic aid.

Other Aid Given: A fire department covers and responds to another jurisdiction or locale that has no fire department.

No Aid: A fire department handles an incident within its jurisdiction without help from adjacent or outside fire departments.

Purpose

Aid information can be used to study response levels necessary to control various fire and emergency situations. It can be used to determine the adequacy of resources at the local level and the need for adjusting cooperative agreements. The Aid Given or Received entry serves as data control to ensure that the same incident is not counted more than once while still giving credit for activity performed by outside departments.

Entry

Check or mark the box indicating whether aid was given or received. If no aid was given or received, check or mark the None box.

- ☛ Unless otherwise stipulated, whenever the following instructions indicate completion of the “Basic Module,” the appropriate supporting and optional modules must also be completed.

Mutual/Automatic Aid Received: If either of these boxes is checked or marked, complete the Basic Module.

Mutual/Automatic Aid Given: If your department provided automatic or mutual aid to another fire department, check or mark the appropriate aid-given box; complete their FDID, their State, and their Incident Number fields; and complete the Basic Module through Block G1 (Resources). No other information is required for the Basic Module unless a fire service casualty occurs. In this case, you must also complete Block H1 (Casualties) and a Fire Service Casualty Module.

Other Aid Given: Check or mark this box if your department covers and responds to another jurisdiction or locale that has no fire department. Complete the Basic Module. In Section D, leave their FDID and their Incident Number fields blank; the State field is optional.

None: Check or mark this box if no mutual aid was involved.

If the receiving fire department completes the incident, then the giving department should complete the required portion of the module as needed for its own documentation of the incident. This can be particularly important for documenting fire service casualties.

Resources: If you give aid, you may choose to report your own resources as an option (Block G1). Similarly, if you receive aid, you may choose to count only your own resources or count your own resources plus those of the aid-giving department. If you include aid-received resources, check or mark the corresponding box.

Casualties: The aid-receiving department reports the details on all casualties other than the fire service casualties of the aid-giving department. Each department reports the details on its own fire service casualties.

- It is critical to the reporting system that the aid-receiving departments always report the total number of civilian casualties associated with the incident.

Examples

Three examples given below illustrate aid entries.

- A fire department receives automatic aid from another department in fighting a fire. The Gorman County Fire Department responded to a structure fire to assist the Buckley Fire & Rescue Department. Buckley FRD completes all required modules and checks the “Automatic aid received” box in Section D on the Basic Module.

 - The equipment provided by the Gorman County FD may be listed in the Remarks section (L). For example, “Gorman County Fire Department: one pumper, one aerial ladder.”
 - The Gorman County FD completes Section A through Section G1 on the Basic Module. In Section D, check or mark the Automatic Aid Given box and indicate Buckley FRD’s FDID, State, and incident number. If the incident number is unknown, then the Gorman County FD is required to complete the entire Basic Module.
- A fire department sends apparatus and personnel to a nearby community to “fill-in” for its fire department. Buckley Fire & Rescue Department sent one pumper to fill-in at Station 13 in Gorman County FD’s jurisdiction.

 - If the Buckley FRD fill-in unit responded to an incident: Buckley FRD completes the Basic Module using Gorman County FD’s FDID and Incident Number because, once they are in the Gorman station, it is the same as if they are Gorman fire department personnel.
 - If Buckley FRD did not respond to an incident: Buckley FRD completes the Basic Module with the Action Taken (Section F) as “Fill-in, Standby” (code 92) using the Buckley FDID and Incident Number:
- A fire department gives aid to another jurisdiction without a fire department. The Buckley Fire & Rescue Department covers the neighboring town of Dunnville, which has no fire protection services of its own.

 - For each incident that Buckley FRD responds to in Dunnville, the Other Aid Given box should be checked or marked and the Basic Module completed.

| D Aid Given or Received ☆ | | <input type="checkbox"/> None | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|---|---|-------------|---|---|---|---|------------|---|-----------------------|--|--|-------------|--|--|--|--|--|
| 1 | <input type="checkbox"/> Mutual aid received | | | | | | | | | | | | | | | | | | | |
| 2 | <input type="checkbox"/> Auto. aid received | | | | | | | | | | | | | | | | | | | |
| 3 | <input checked="" type="checkbox"/> Mutual aid given | <table border="1"> <tr> <td>0</td><td>7</td><td>4</td><td>3</td><td>4</td> <td>V</td><td>A</td> </tr> <tr> <td colspan="5">Their FDID</td> <td colspan="2">Their State</td> </tr> </table> | 0 | 7 | 4 | 3 | 4 | V | A | Their FDID | | | | | Their State | | | | | |
| 0 | 7 | 4 | 3 | 4 | V | A | | | | | | | | | | | | | | |
| Their FDID | | | | | Their State | | | | | | | | | | | | | | | |
| 4 | <input type="checkbox"/> Auto. aid given | | | | | | | | | | | | | | | | | | | |
| 5 | <input type="checkbox"/> Other aid given | <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td> <td>0</td><td>1</td><td>0</td><td>0</td> </tr> <tr> <td colspan="9">Their Incident Number</td> </tr> </table> | | | | | | 0 | 1 | 0 | 0 | Their Incident Number | | | | | | | | |
| | | | | | 0 | 1 | 0 | 0 | | | | | | | | | | | | |
| Their Incident Number | | | | | | | | | | | | | | | | | | | | |

AID GIVEN OR RECEIVED CODES

- | | |
|---|---|
| 1 | Mutual aid received from an outside fire service entity upon request from the initial responding department. |
| 2 | Automatic aid received. Includes a department receiving aid from an outside fire service entity that was dispatched automatically based on a prior agreement between two jurisdictions. |
| 3 | Mutual aid given to an outside fire service entity on request of the outside entity. |
| 4 | Automatic aid given. Includes departments automatically dispatched to give aid to an outside fire service entity based on a prior agreement between two jurisdictions. |
| 5 | Other aid given. Includes a fire department responding to another jurisdiction or locale that has no fire department. |
| N | No aid given or received. |

SECTION E

Section E collects the dates and times of when the alarm was received, when the units arrived on scene, when the incident was controlled, and when the last unit left the scene.

E1 Dates and Times

All dates and times are entered as numerals. For time of day, the 24-hour clock is used. (Midnight is 0000.)

Alarm Time ☆*Definition*

The actual month, day, year, and time of day (hour, minute, and (optional in on-line entry) seconds) when the alarm was received by the fire department. This is not an elapsed time.

- ☛ The Alarm time is the same as the Incident Date (Section A), except if the incident is an exposure and the exposure occurs on a subsequent day.

Purpose

Alarm time is important for three reasons: (1) as a legal requirement for recording the precise time notification was made of the incident, (2) as information for determining the frequency of particular types of incidents by time period, and (3) as the starting time to determine the length of time taken to arrive at an incident and the total amount of time spent on the incident scene.

- ☛ For all automated systems, NFIRS supports the collection of all times in seconds in addition to hours and minutes, although it is not required. Collection of seconds is usually used by fire departments using computer-aided dispatch.


Entry

Enter the month, day, year (mm/dd/yyyy), and time to the nearest minute when the original alarm was received by the fire department.

| | | | |
|-----------------------|-------------------|------------------|------------------|
| 01 January | 04 April | 07 July | 10 October |
| 02 February | 05 May | 08 August | 11 November |
| 03 March | 06 June | 09 September | 12 December |
| 12:00 midnight = 0000 | 12:01 a.m. = 0001 | 1:06 a.m. = 0106 | 2:20 p.m. = 1420 |

Example

The alarm was received at 5:37 p.m. on December 23, 2002:

| E1 Dates and Times | | Midnight is 0000 | | | | |
|---|--|---|-------|---------------|-------|-------|
| | | Month | Day | Year | Hour | Min |
| Check boxes if dates are the same as Alarm Date.  | <input checked="" type="checkbox"/> Alarm ☆ | ALARM always required | | | | |
| | <input type="checkbox"/> Arrival ☆ | ARRIVAL required, unless canceled or did not arrive | | | | |
| | <input type="checkbox"/> Controlled | CONTROLLED optional, except for wildland fires | | | | |
| | <input type="checkbox"/> Last Unit Cleared | LAST UNIT CLEARED, required except for wildland fires | | | | |
| | | 1 2 | 2 3 | 2 0 0 2 | 1 7 | 3 7 |

Arrival Time ☆

Definition

The actual month, day, year, and time of day when the first responding unit arrived at the incident scene. This is not an elapsed time.

Purpose

This element reflects the time spent traveling to the scene of the incident. This information can be useful to fire department management in determining (1) the actual time spent at an incident and (2) any delay between alarm and arrival.


Entry

Enter the month, day, year (mm/dd/yyyy), and time that the first fire department unit arrived on the scene. If the date is the same as the Alarm date, check or mark the corresponding box; do not reenter the date.

☛ If canceled on the way to a call (Incident Type 611), Arrival time is not required.

Example

The first responding units arrived at 5:42 p.m. on December 23, 2002:

| E1 Dates and Times | | Midnight is 0000 | | | | |
|---|--|---|-------|---------------|-------|-------|
| | | Month | Day | Year | Hour | Min |
| Check boxes if dates are the same as Alarm Date.  | <input checked="" type="checkbox"/> Alarm ☆ | ALARM always required | | | | |
| | <input checked="" type="checkbox"/> Arrival ☆ | ARRIVAL required, unless canceled or did not arrive | | | | |
| | <input type="checkbox"/> Controlled | CONTROLLED optional, except for wildland fires | | | | |
| | <input type="checkbox"/> Last Unit Cleared | LAST UNIT CLEARED, required except for wildland fires | | | | |
| | | 1 2 | 2 3 | 2 0 0 2 | 1 7 | 4 2 |

Controlled Time

Definition

The actual month, day, year, and time of day when the fire is brought under control or the incident is stabilized and does not require additional emergency resources. “Controlled” is the time when the incident commander determines that the fire will not escape from its containment perimeter.

☛ This is a required field for wildland fires.

Purpose

The time spent stabilizing a fire provides fire department management with the information needed to analyze the duration patterns of different types of fires. This can assist in determining service demand and costs for resource allocation.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the incident was controlled. If the date is the same as the Alarm date, check or mark the corresponding box; do not reenter the date. However, if the incident extended (from the Alarm time to the Controlled time) through midnight, do not check or mark the box; instead, enter the date.

Example

The fire was controlled at 12:24 a.m. on December 24, 2002:

| E1 Dates and Times | | Midnight is 0000 | | | | | |
|--|---|------------------|-----|---------|------|-----|--|
| | | Month | Day | Year | Hour | Min | |
| Check boxes if dates are the same as Alarm Date. | Alarm ☆ | 1 2 | 2 3 | 2 0 0 2 | 1 7 | 3 7 | |
| | ARRIVAL required, unless canceled or did not arrive | | | | | | |
| <input checked="" type="checkbox"/> | Arrival ☆ | | | | 1 7 | 4 2 | |
| | CONTROLLED optional, except for wildland fires | | | | | | |
| <input type="checkbox"/> | Controlled | 1 2 | 2 4 | 2 0 0 2 | 0 0 | 2 4 | |
| | LAST UNIT CLEARED, required except for wildland fires | | | | | | |
| <input type="checkbox"/> | Last Unit Cleared | | | | | | |

Last Unit Cleared Time

Definition

The actual month, day, year, and time of day when the last unit cleared the incident scene. This is not an elapsed time.

Purpose

Combined with the previously recorded times, this element is valuable to fire department management in determining the actual time spent at an incident.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the last unit cleared the scene. If the date is the same as the Alarm date, check or mark the corresponding box; do not reenter the date. However, if the incident extended (from the Alarm time to the Last Unit Cleared time) through midnight, do not check or mark the box; instead, enter the date.

Example

The last unit cleared at 1:00 a.m. on December 24, 2002:

| E1 Dates and Times | | Midnight is 0000 | | | | | | | | | | |
|--|-------------------|---|-----|------|------|-----|---|---|---|---|---|---|
| | | Month | Day | Year | Hour | Min | | | | | | |
| Check boxes if dates are the same as Alarm Date. | Alarm ☆ | ALARM always required | 1 | 2 | 2 | 0 | 0 | 2 | 1 | 7 | 3 | 7 |
| <input checked="" type="checkbox"/> | Arrival ☆ | ARRIVAL required, unless canceled or did not arrive | | | | | | | 1 | 7 | 4 | 2 |
| <input type="checkbox"/> | Controlled | CONTROLLED optional, except for wildland fires | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 4 |
| <input type="checkbox"/> | Last Unit Cleared | LAST UNIT CLEARED, required except for wildland fires | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |

E2 Shift and Alarms

Shift or Platoon

Definition

Identifies the on-duty shift or platoon that responded to the incident. This applies only to fire departments with organized work force arrangements.

Purpose

Recording the shift that responded to an incident assists fire departments in determining workload balances and staffing requirements. This is a local option.

Entry

If your fire department uses this data element, enter the designation of the on-duty shift that responded to the incident. If the incident was of such duration that the shift changed during the control of the incident, record the shift change time and the designation of the new shift in the Remarks section (L).

☛ Fire departments should establish and publish the codes or values to be used in this field.

Example

C Shift responds to an incident:

| | | |
|-----------------------------|--------|----------|
| E2 Shifts and Alarms | | |
| Local Option | | |
| [C] | [] | [] |
| Shift or platoon | Alarms | District |

Alarms

Definition

The actual number of alarms transmitted for the incident. The definition of an alarm is determined at the local level.

Purpose

The number of alarms is one method of measuring incident severity. Knowing the number of alarms can be useful for local analysis of resource requirements. The number of alarms also may be related to mutual aid support. *This is a local option.*

Entry

If your fire department has a standard method of designating alarms, enter the number of alarms required for this incident.

Example

A three-alarm fire in a business district:

| | | |
|-----------------------------|--------|----------|
| E2 Shifts and Alarms | | |
| Local Option | | |
| [C] | [3] | [] |
| Shift or platoon | Alarms | District |

District

Definition

An area identified by the fire department that is useful for administrative purposes.

Purpose

Fire departments can develop their own method of locating the frequency and severity of incidents by district. District numbers may identify specific townships, contract service areas, political wards, station response areas, inspection or administrative districts, or any other boundary a department may wish to use. This data element can be a powerful tool for local use. *This is a local option.*

Entry

Enter the fire department-assigned District number where the incident occurred. These positions can contain any combination of letters or numbers as designated by your fire department.

Example

The fire occurred in Station 1A's first due area:

| | | |
|-----------------------------|--------|----------|
| E2 Shifts and Alarms | | |
| Local Option | | |
| C | 3 | 1A |
| Shift or platoon | Alarms | District |

E3 Special Studies

Definition

Temporary data elements that can be used for collection of information that is of special interest for a defined period. Special studies are typically required to capture information on emerging trends, problem areas, or a specific issue being studied. When the answer becomes known through the special study, the collection of that field is no longer required. If the data will always be needed for permanent collection, a State- or department-defined permanent user field should be created and used instead of the Special Studies field. A State, a fire department, or the NFDC can define special studies.

Special Study ID Number: This number uniquely identifies each special study that is being run by the fire department, State, or NFDC.

Special Study Value: The value in the field being collected. Responses for special studies can be defined as codes or as alphanumeric entries of numeric values or dates. States, fire departments, and the NFDC can define Special Studies fields.

Purpose

The use of special studies allows departments, States, and the NFDC to quickly collect information on an issue or problem and to answer a specific question through the temporary use of a special study field over a defined period of time. *This is a State or local option.*

Entry

If you are participating in a Special Study, your entry will depend on the type of data being collected. Use the codeset defined for the particular Special Study field if it is a coded entry. The data entered may also be a date or a numeric entry if the field has been so defined. Additional Special Study fields are available on the Supplemental Form (NFIRS-1S).

SECTION F

F Actions Taken ☆

☛ Actions Taken was known as Type of Action Taken in NFIRS 4.1.

Definition

The duties performed at the incident scene by the responding fire department personnel.

Purpose

These data elements, together with Incident Type, enable a fire department to document the breadth of activities and the resources required by the responding fire department to effectively handle the incident. This information also provides some indication of the specific types of services provided by the fire department.

Entry

The Actions Taken field(s) is required for all incidents where actions were taken, including “investigation only.” Enter the two-digit codes and descriptions for up to three of the *most significant* actions taken at the scene of the incident. Specific actions may include extinguishing fires, forcible entry, providing first aid, identifying and analyzing hazardous materials, and transporting the injured. The action may involve simply standing by at an incident for possible service.

Be as specific as possible in stating the action taken. The Additional Action Taken fields are optional. If this is a HazMat incident and the HazMat Module is being completed, list the non-HazMat actions taken in this field and the Actions Taken specific to handling the hazardous materials incident in the HazMat Module.

- ☛ The Primary Action Taken is the most significant action taken by the fire department at the scene (i.e., use the code with the lowest numerical value). This is a required field.
- ☛ When canceled en route, enter code 93, “Canceled en route;” in the case, the Incident Type (Section C) must be code 611.

Example

The fire department extinguished the fire (11), provided first aid to a fire victim (31), and overhauled the fire scene (12):

| F Actions Taken ☆ | |
|-----------------------------|-----------------------|
| 1 1 | Extinguished the fire |
| Primary Action Taken (1) | |
| 3 1 | Provided first aid |
| Additional Action Taken (2) | |
| 1 2 | Overhauled the scene |
| Additional Action Taken (3) | |

ACTIONS TAKEN CODES**Fire Control or Extinguishment**

- 11 Extinguishment by fire service personnel.
- 12 Salvage and overhaul.
- 13 Establish fire lines around wildfire perimeter. Includes clearing firebreaks using direct, indirect, and burnout tactics as appropriate.
- 14 Contain fire (wildland). Includes taking suppression action that can reasonably be expected to check the fire spread under prevailing and predicted conditions.
- 15 Confine fire (wildland). Includes when fire crews or resources stop the forward progress of a fire but have not put in all control lines.
- 16 Control fire (wildland). Includes when fire crews or resources completely surround the fire perimeter with control lines; extinguish any spot fires; burn any area adjacent to the fire side of the control lines; and cool down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under foreseeable conditions.
- 17 Manage prescribed fire (wildland).
- 10 Fire control or extinguishment, other.

Search and Rescue

- 21 Search for lost or missing person. Includes animals.
- 22 Rescue, remove from harm. Excludes vehicle extrication (23).
- 23 Extrication or disentangling of a person. Excludes body recovery (24).
- 24 Recover body or body parts.
- 20 Search and rescue, other.

EMS and Transport

- 31 Provide first aid and check for injuries. Medical evaluation of patient.
- 32 Provide basic life support (BLS).
- 33 Provide advanced life support (ALS).
- 34 Transport of person from scene in fire service ambulance or apparatus.
- 30 Emergency medical services, other.

Hazardous Condition

- 41 Identification, analysis of hazardous materials.
- 42 Hazardous materials detection, monitoring, sampling, and analysis using a variety of detection instruments including combustible gas indicators (CGIs) or explosimeter, oxygen monitors, colorimetric tubes, specific chemical monitors, and others. Results from these devices must be analyzed to provide information about the hazardous nature of the material or environment.
- 43 Hazardous materials spill control and confinement. Includes confining or diking hazardous materials. These are actions taken to confine the product released to a limited area including the use of absorbents, damming/diking, diversion of liquid runoff, dispersion, retention, or vapor suppression.
- 44 Hazardous materials leak control and containment. Includes actions taken to keep a material within its container, such as plugging/patching operations, neutralization, pressure isolation/reduction, solidification, and vacuuming.
- 45 Remove hazard. Includes neutralizing a hazardous condition.
- 46 Decontaminate persons or equipment. Includes actions taken to prevent the spread of contaminants from the "hot zone" to the "cold zone." This includes gross, technical, or advanced personal decontamination of victims, emergency responders, and equipment.
- 47 Decontamination of occupancy or area exposed to hazardous materials.
- 48 Remove hazardous materials. Includes a broad range of actions taken to remove hazardous materials from a damaged container or contaminated area. Examples of actions to remove hazards include product offload/transfer, controlled burning or product flaring, venting, and overpacking.
- 40 Hazardous condition, other.

Fires, Rescues, and Hazardous Conditions

- 51 Ventilate. Includes nonhazardous odor removal and removal of smoke from nonhazardous materials-related fires.
- 52 Forcible entry, performed by fire service. Includes support to law enforcement.
- 53 Evacuate area. Removal of civilians from an area determined to be hazardous. Includes actions taken to isolate the contaminated area and/or evacuate those persons affected by a hazardous materials release or potential release.
- 54 Determine if the materials released are nonhazardous through product identification and environmental monitoring.
- 55 Establish safe area. Includes isolating the area affected by denying entry to unprotected persons and establishing hazard control zones (hot, warm, cold).
- 56 Provide air supply.
- 57 Provide light or electrical power.
- 58 Operate apparatus or vehicle.
- 50 Fires, rescues, and hazardous conditions, other.

Systems and Services

- 61 Restore municipal services. Includes turning water back on and notifying the gas company to turn the gas on.
- 62 Restore sprinkler or fire protection system.
- 63 Restore fire alarm system. Includes restoring fire alarm systems monitored by the fire service.
- 64 Shut down system. Includes shutting down water, gas, and fire alarm systems.
- 65 Secure property. Includes property conservation activities such as covering broken windows or holes in roofs.
- 66 Remove water or control flooding condition.
- 60 Systems and services, other.

Assistance

- 71 Assist physically disabled. Includes providing nonmedical assistance to physically disabled, handicapped, or elderly citizens.
- 72 Assist animal. Includes animal rescue, extrication, removal, or transport.
- 73 Provide manpower. Includes providing manpower to assist rescue/ambulance units lift patients or providing manpower to assist police.
- 74 Provide apparatus.
- 75 Provide equipment, where equipment is used by another agency.
- 76 Provide water. Includes tanker shuttle operations and pumping in a relay or from a water source. Excludes normal fire suppression operations.
- 77 Control crowd. Includes restricting pedestrian access to an area. Excludes control of vehicles (78).
- 78 Control traffic. Includes setting up barricades and directing traffic.
- 79 Assess damage from severe weather or the results of a natural disaster.
- 70 Assistance, other.

Information, Investigation, and Enforcement

- 81 Incident command. Includes providing support to incident command activities.
- 82 Notify other agencies. Includes notifications of utility companies, property owners, and the like.
- 83 Provide information to the public or media.
- 84 Refer to proper authority. Includes turnover of incidents to other authorities or agencies such as the police.
- 85 Enforce fire code and other codes. Includes response to public complaints and abatement of code violations.
- 86 Investigate. Includes investigations done on arrival to determine the situation and post-incident investigations; and collecting incident information for incident reporting purposes.
- 87 Investigate. Fire out on arrival.
- 80 Information, investigation, and enforcement, other.

Fill-in, Standby

- 91 Fill in, move up to another fire station.
- 92 Standby.
- 93 Canceled en route.
- 00 Actions taken, other.
- 90 Fill-in, standby, other.

SECTION G

Section G collects data on the number of personnel and equipment used for suppression, EMS, etc., in the response to a specific incident.

G1 Resources ☆

Definition

The total complement of fire department personnel and apparatus (suppression, EMS, other) that responded to the incident. This includes all fire and EMS personnel assigned to the incident whether they arrived at the scene or were canceled before arrival.

Purpose

This information is used to determine actual personnel and apparatus requirements for different types of incidents and for different levels of incident severity. This data element may be examined with respect to casualties and damage estimates.

Entry

Enter the total number of fire department personnel and apparatus that responded to the incident for the Suppression, EMS, and Other fields. If the Apparatus or Personnel Modules are used, check or mark the appropriate box (top) and skip this section. If these personnel and apparatus counts include mutual aid resources, check or mark the box at the bottom of Block G1.

- ☛ Chief officer vehicles and privately owned vehicles should be counted as “Other.” The personnel arriving in these vehicles should be counted according to their primary assignment at the incident.

Example

Four firefighters (one engine), two EMS personnel (one ambulance), and one incident commander (one car) responded to an incident:

| | | |
|--|------------------|------------------|
| G1 Resources ☆ | | |
| <input type="checkbox"/> Check this box and skip this block if an Apparatus or Personnel Module is used. | | |
| | Apparatus | Personnel |
| Suppression | _ _ _ 1 | _ _ _ 4 |
| EMS | _ _ _ 1 | _ _ _ 2 |
| Other | _ _ _ 1 | _ _ _ 1 |
| <input type="checkbox"/> Check box if resource counts include aid received resources. | | |

G2 Estimated Dollar Losses and Values

Definition

Estimates of the total property and contents dollar loss and the pre-incident value of the property and contents.

- ☛ An estimate of the property and contents dollar loss is required for all fires where the value is known.

Losses: Rough estimation of the total loss to the structure and contents, in terms of the cost of replacement in like kind and quantity. This estimation of the fire loss includes contents damaged by fire, smoke, water, and overhaul. This does not include indirect loss, such as business interruption.

Pre-incident Value: Estimation of the replacement cost of the structure and contents.

Purpose

Collecting property and content losses illustrates the magnitude of the fire problem, provides an additional indicator of the incident severity, and can be used to evaluate progress in fire protection. This information can help local communities, States, and the country determine the amount of money that should be spent on fire protection.

Estimated property and content losses are also crucial for identifying types of situations where high monetary losses are common. This information helps target fire prevention programs. Loss estimates also can be used to evaluate the cost effectiveness of various equipment and fire protection practices.

Pre-incident values help delimit the magnitude of the potential fire problem by providing a basis for comparison.

Entry

Enter the best estimates of dollar losses (required for all fires when obtainable) and pre-incident values (local option) that are practical to make or obtain. Monetary losses should be estimated as accurately as possible, though it is understood that the estimates may be rough approximations. If there was no loss or no pre-incident value, check or mark the appropriate None boxes.

- ☛ In making this entry, use only whole dollars; do not include cents.
- ☛ A better estimate of losses for a fire often becomes available after the incident report is submitted. Revision of the original estimate should be made as a change entry when better information becomes available, especially for large fires.

Example

The estimated dollar loss was \$3,450; the estimated pre-incident value was \$7,500:

| G2 Estimated Dollar Losses and Values | | | |
|--|---|--|-------------------------------------|
| LOSSES: | Required for all fires if known. Optional for non-fires. | | None |
| Property | \$ [] [] [] , [] [] [] 3 , [] 4 , [] 5 [] 0 | | <input type="checkbox"/> |
| Contents | [] [] [] , [] [] [] , [] [] [] | | <input checked="" type="checkbox"/> |
| PRE-INCIDENT VALUE: Optional | | | |
| Property | \$ [] [] [] , [] [] [] 7 , [] 5 , [] 0 , [] 0 | | <input type="checkbox"/> |
| Contents | \$ [] [] [] , [] [] [] , [] [] [] | | <input checked="" type="checkbox"/> |

COMPLETED MODULES

This area of the Basic Module is used to determine the totality of all the modules submitted for a specific incident. It acts as a checklist for completed modules under the paper form system.

Definition

Listing of NFIRS–2 through NFIRS–11 modules completed for the incident.

Purpose

This section is for paper form management to ensure receiving authorities that the incident package is complete. It also serves as a reminder to the responder as to which modules must be completed.

Entry

Check or mark all the Completed Module boxes that apply to the incident.

Example

A fire department responded to fire in an apartment building; one firefighter was injured. Three additional forms will be attached to the Basic Module: Fire, Structure Fire, and Fire Service Casualty

| Completed Modules | |
|-------------------------------------|----------------------|
| <input checked="" type="checkbox"/> | Fire–2 |
| <input checked="" type="checkbox"/> | Structure Fire–3 |
| <input type="checkbox"/> | Civilian Fire Cas.–4 |
| <input checked="" type="checkbox"/> | Fire Service Cas.–5 |
| <input type="checkbox"/> | EMS–6 |
| <input type="checkbox"/> | HazMat–7 |
| <input type="checkbox"/> | Wildland Fire–8 |
| <input type="checkbox"/> | Apparatus–9 |
| <input type="checkbox"/> | Personnel–10 |
| <input type="checkbox"/> | Arson–11 |

SECTION H

Section H captures information on the number of civilians and firefighters injured or killed as a result of the incident. Other information in this section relates to whether a detector alerted occupants in a structure and whether hazardous materials were released.

H1 Casualties ☆*Definition*

A person injured or killed either as a result of the incident or during the mitigation of the incident. An injury is physical damage to a person that requires either (1) treatment by a practitioner of medicine within 1 year of the incident, or (2) at least 1 day of restricted activity immediately following the incident. Deaths also include people who die within 1 year because of injuries sustained from the incident.

☛ Either the None box is checked or marked or the number of casualties is entered.

Civilians include emergency personnel who are not members of the fire department, such as police officers or utility workers.

Purpose

This information can be correlated with occupancy type, structural conditions, and other data to help understand how to reduce future fire injuries and deaths. Furthermore, this information can be used to reduce firefighter injuries and deaths through better equipment, training, and physical conditioning.

Entry

Identify and separately record the number of fire service personnel and the number of civilians or other non-fire department personnel killed or injured as a result of the incident. Check the None box if there were no civilian or fire service personnel casualties.

Fire Service Deaths: Enter the number of fire service personnel from your department who died in connection with this incident regardless of incident type. A Fire Service Casualty Module must be completed for each individual counted here.

Fire Service Injuries: Enter the number of fire service personnel from your department who were injured (but did not die) in connection with this incident regardless of incident type. A Fire Service Casualty Module must be completed for each individual counted here.

- ☛ Include those people injured or killed while responding to or returning from the incident. If the injury or death occurred on fire department property after the apparatus was placed back in service, do not include it in this section.
- ☛ On-duty firefighter injuries or deaths that did not occur during an incident may be collected using the Fire Service Casualty Module. Remember when reporting a firefighter casualty of this type, the Basic Module must still be filled out, complete with an incident number. In this event, create an EMS incident with the appropriate response information.

Civilian Deaths: Enter the number of civilians or non-fire department personnel who died in connection with this incident. Enter only fire-related deaths here. For HazMat deaths, enter the number in Section P of the HazMat Module when that optional module is selected by your State reporting authority. A Civilian Casualty Module must be completed for each individual counted here.

Civilian Injuries: Enter the number of civilians or non-fire department personnel who were injured (but did not die) in connection with this incident. Enter only fire-related injuries here. For HazMat injuries, enter the number in Section P of the HazMat Module when that optional module is selected by your State reporting authority. The Civilian Casualty Module must be completed for each individual counted here.

☛ EMS civilian deaths or injuries are not entered on either the Basic or the HazMat Modules.

Example

One civilian and one firefighter were injured at the scene of a tractor-trailer accident:

| | | |
|------------------------|----------------------|-------------------------------|
| H₁ ☆ | Casualties | <input type="checkbox"/> None |
| | Deaths | Injuries |
| Fire Service | <input type="text"/> | <input type="text"/> 1 |
| Civilian | <input type="text"/> | <input type="text"/> 1 |

H₂ Detector

Definition

The presence in the general area of fire origin of one or more detectors that was within the operational range of the detector(s) at the time of an incident.

☛ This is required for all confined fires (Incident Type codes 113–118, Section C).

Purpose

The information on whether or not a detector alerted the occupants of a structure to an emergency is important for understanding fire control and life safety with and without detection equipment.

Entry

Check or mark the box if a detector alerted the occupants in this incident (regardless of whether the detector was smoke, heat, carbon monoxide, etc.). This block can be left blank for non-fire incidents, and can optionally be used for a carbon monoxide (CO) incident and whether a CO detector operated.

Example

Burning food on the stove set off the smoke detector and alerted the occupants:

| | |
|-------------------------------|--|
| H₂ Detector | |
| Required for confined fires | |
| 1 | <input checked="" type="checkbox"/> Detector alerted occupants |
| 2 | <input type="checkbox"/> Detector did not alert them |
| U | <input type="checkbox"/> Unknown |

DETECTOR CODES

- 1 Detector alerted occupants.
- 2 Detector did not alert occupants.
- U Unknown.

H₂ Hazardous Materials Release

Definition

The occurrence and nature of a hazardous material release at the incident.

Purpose

This element provides information on whether or not hazardous materials were released at the incident, what the materials were, and whether the HazMat Module should be completed. This allows fire departments to document releases of hazardous materials as minor spills that occur in the everyday environment without the need to complete the HazMat Module.

Entry

Check or mark the box best describing the type of spill or release that occurred at the incident. If no hazardous materials were involved or no HazMat release, check or mark the None box. Complete the HazMat Module if special HazMat actions were required, including the need for special protective clothing or equipment, or if the spill was equal to or greater than 55 gallons.

Example

Gasoline was leaking from the car involved in a motor vehicle accident:

| | | |
|--|--|-------------------------------|
| H₃ Hazardous Materials Release | | <input type="checkbox"/> None |
| 1 | <input type="checkbox"/> Natural gas: slow leak, no evacuation or HazMat actions | |
| 2 | <input type="checkbox"/> Propane gas: <21-lb tank (as in home BBQ grill) | |
| 3 | <input checked="" type="checkbox"/> Gasoline: vehicle fuel tank or portable container | |
| 4 | <input type="checkbox"/> Kerosene: fuel burning equipment or portable storage | |
| 5 | <input type="checkbox"/> Diesel fuel/fuel oil: vehicle fuel tank or portable storage | |
| 6 | <input type="checkbox"/> Household solvents: home/office spill, cleanup only | |
| 7 | <input type="checkbox"/> Motor oil: from engine or portable container | |
| 8 | <input type="checkbox"/> Paint: from paint cans totaling <55 gallons | |
| 0 | <input type="checkbox"/> Other: special HazMat actions required or spill > 55 gal (Please complete the HazMat form.) | |

HAZARDOUS MATERIALS RELEASE CODES

- 1 Natural gas, slow leak, no evacuation or HazMat actions taken.
- 2 Propane gas, less than a 21-pound tank (as in home BBQ grill).
- 3 Gasoline, vehicle fuel tank or portable container. Includes leaks or releases from equipment tanks where the release is less than 55 gallons.
- 4 Kerosene, fuel-burning equipment or portable storage container less than 55 gallons.
- 5 Diesel fuel or fuel oil, vehicle fuel tank or portable storage container less than 55 gallons.
- 6 Household/Office solvent or chemical spill. Includes spills of mineral spirits, acetone, and turpentine. Cleanup only.
- 7 Motor oil from engine or portable container less than 55 gallons.
- 8 Paint from paint cans less than 55 gallons.
- 0 Other special HazMat actions were required or the spill was equal to or greater than 55 gallons. Complete the HazMat Module.
- N No HazMat involved.

SECTION I**■ Mixed Use Property**

- ☛ Mixed Use Property is similar to Complex in NFIRS 4.1.

Definition

This data element captures the overall use of a property. If a property has two or more uses, then the Mixed Use Property designation applies.

Purpose

Documenting an incident that occurs on a property with more than one use is important to better identify the overall or main use of the property in which emergency incidents occur. Knowing the overall property use allows for better analysis of incident causes and targeting of prevention strategies. It also is important information for use in code development and enforcement as well as for inspection activities.

Entry

If the property is of mixed use, check or mark the box best describing the overall use of the property where the incident occurred. Check or mark the appropriate box even if the incident did not involve the entire complex (for example, a single store in a row of stores). If it is not a mixed use property, check or mark the Not mixed box.

- ☛ For example, a restaurant in an office building would be a structure with two or more property uses, assembly use and office use. The Mixed Use Property designation would be office use (code 59). A warehouse on the property of an amusement park would have a designation of assembly use (10). A stand-alone service station would not be a Mixed Use although it has a driveway and parking area.

Example

An electrical fire in the store of a hotel lobby (40):

| I Mixed Use Property | | <input type="checkbox"/> Not mixed |
|----------------------|---|------------------------------------|
| 10 | <input type="checkbox"/> Assembly Use | |
| 20 | <input type="checkbox"/> Education use | |
| 33 | <input type="checkbox"/> Medical use | |
| 40 | <input checked="" type="checkbox"/> Residential use | |
| 51 | <input type="checkbox"/> Row of stores | |
| 53 | <input type="checkbox"/> Enclosed mall | |
| 58 | <input type="checkbox"/> Business & residential | |
| 59 | <input type="checkbox"/> Office use | |
| 60 | <input type="checkbox"/> Industrial use | |
| 63 | <input type="checkbox"/> Military use | |
| 65 | <input type="checkbox"/> Farm use | |
| 00 | <input type="checkbox"/> Other mixed use | |

MIXED USE PROPERTY CODES

| | |
|----|---|
| 10 | Assembly use. Places for the gathering of people for amusement, recreation, social, religious, civic, patriotic, travel, and similar purposes. The occupants are present voluntarily and for a limited duration. |
| 20 | Educational use. Properties used for the gathering of groups of persons for purposes of instruction. These occupancies differ from assembly occupancies in that persons are present regularly and under some control or discipline. |
| 33 | Medical use. Properties dedicated to health care, including hospitals, treatment centers, clinics, and doctor's office buildings. Medical complexes include facilities for psychological and physical care. |
| 40 | Residential use. A property in which sleeping accommodations are furnished. Accommodations may be permanent, as in an apartment; transient, as in a hotel; or temporary, as in a dormitory or barracks. |
| 51 | Row of stores. Includes strip malls. Excludes enclosed malls (53). |
| 53 | Enclosed mall. A shopping center with multiple stores sharing a common, enclosed area. The principal use is for retail trade, with incidental other uses such as office and business. Excludes strip malls (51). |
| 58 | Business and residential properties containing a mixture of commercial activity with residential uses. Includes mixed-use developments and apartments with first-floor retailing. |
| 59 | Office use. Office properties are those used primarily for the transaction of business and the keeping of records. Includes those with incidental retail sales or eating establishments. |
| 60 | Industrial use. Properties characterized by the mechanical, chemical, or electromagnetic transformation of inorganic or organic substances into new products via machinery or by hand. Includes the assembly of component parts to produce finished or intermediate goods for further processing. |
| 63 | Military use. Any property under the regular control of the U.S. military or authorized State militias. Includes military bases, training centers, armories, and related facilities. |
| 65 | Farm use. Included are croplands, orchards, and livestock production. |
| 00 | Mixed use, other. |
| NN | Not mixed use. Incident property consists of a single use. |

SECTION J

J Property Use ☆

☛ Property Use was known as Fixed Property Use in NFIRS 4.1.

Definition

Each individual property has a specific use, whether a structure or open land. This entry refers to the actual use of the property where the incident occurred, not the overall use of mixed use properties of which the property is part (see Mixed Use Property, Section I). The intent of this entry is to specify the property use, not the configuration of the building or other details of the property.

Purpose

This element permits analyses of differing fire problems that occur on a wide range of property types. Information on the frequency, losses, and types of fires for each property use can assist in targeting fire prevention programs and fire protection or suppression systems for each type of property. It often assists in ordering priorities for inspection, developing new building codes, and evaluating the success of programs directed at particular types of properties.

Entry

Check or mark the box best describing the specific property use. If the property use is not listed in Section J of the paper form, look up the specific property use code and enter the appropriate three-digit code and the code's description. If no property was involved in the incident (e.g., Incident Type code 611), check or mark the None box.

- ☛ If the property is a structure that is under construction, select the use for which it will be used. This is not applicable to construction site incidents (code 981). If the structure is vacant or being demolished, select its last significant use.
- ☛ Property that is mobile or in transit is reported separately, and the property it is located on at that time is reported in this entry box. If the mobile property is not in transit, indicate its current location. The most common property use classifications for structures and outside property are listed.
- ☛ *Mobile homes.* Use code 419 for mobile homes used primarily as fixed residences. Incident Type code 121 (Section C) should have been used to indicate that this was a fire in a mobile home used as a fixed residence. If the mobile home is in transit, use the code describing the property where the mobile home is located at the time of the incident.
- ☛ If the Property Type is in the 400 series, Block B1, Estimated Number of Residential Living Units in the Building on the Fire Module must be completed.
- ☛ *Property Type 500s, 600s, 700s, or 800s.* If the property use code falls in the 500, 600, 700, or 800 series, the On-Site Materials field (Section C) on the Fire Module must be completed.

Example

Fire in a small electronics warehouse (891)

| | | |
|--|--|---|
| J Property Use ☆ <input type="checkbox"/> None | | |
| Structures | | |
| 131 <input type="checkbox"/> Church, place of worship | 341 <input type="checkbox"/> Clinic, clinic-type infirmary | 539 <input type="checkbox"/> Household goods, sales, repairs |
| 161 <input type="checkbox"/> Restaurant or cafeteria | 342 <input type="checkbox"/> Doctor/Dentist office | 571 <input type="checkbox"/> Gas or service station |
| 162 <input type="checkbox"/> Bar/Tavern or nightclub | 361 <input type="checkbox"/> Prison or jail, not juvenile | 579 <input type="checkbox"/> Motor vehicle/Boat sales/repairs |
| 213 <input type="checkbox"/> Elementary school, kindergarten | 419 <input type="checkbox"/> 1- or 2-family dwelling | 599 <input type="checkbox"/> Business office |
| 215 <input type="checkbox"/> High school, junior high | 429 <input type="checkbox"/> Multifamily dwelling | 615 <input type="checkbox"/> Electric-generating plant |
| 241 <input type="checkbox"/> College, adult education | 439 <input type="checkbox"/> Rooming/Boarding house | 629 <input type="checkbox"/> Laboratory/Science laboratory |
| 311 <input type="checkbox"/> Nursing home | 449 <input type="checkbox"/> Commercial hotel or motel | 700 <input type="checkbox"/> Manufacturing plant |
| 331 <input type="checkbox"/> Hospital | 459 <input type="checkbox"/> Residential, board and care | 819 <input type="checkbox"/> Livestock/Poultry storage (barn) |
| | 464 <input type="checkbox"/> Dormitory/Barracks | 882 <input type="checkbox"/> Non-residential parking garage |
| | 519 <input type="checkbox"/> Food and beverage sales | 891 <input checked="" type="checkbox"/> Warehouse |
| Outside | | |
| 124 <input type="checkbox"/> Playground or park | 936 <input type="checkbox"/> Vacant lot | 981 <input type="checkbox"/> Construction site |
| 655 <input type="checkbox"/> Crops or orchard | 938 <input type="checkbox"/> Graded/Cared for plot of land | 984 <input type="checkbox"/> Industrial plant yard |
| 669 <input type="checkbox"/> Forest (timberland) | 946 <input type="checkbox"/> Lake, river, stream | |
| 807 <input type="checkbox"/> Outdoor storage area | 951 <input type="checkbox"/> Railroad right-of-way | |
| 919 <input type="checkbox"/> Dump or sanitary landfill | 960 <input type="checkbox"/> Other street | |
| 931 <input type="checkbox"/> Open land or field | 961 <input type="checkbox"/> Highway/Divided highway | |
| | 962 <input type="checkbox"/> Residential street/driveway | |

Look up and enter a Property Use code and description only if you have NOT checked a Property Use box.

Property Use Code

Property Use Description

The above example requires completion of Section C, On-Site Materials or Products, on the Fire Module. There, code 712 would be entered as the On-Site Material; Electronics Parts would be entered as the description; and the code 1 box indicating Bulk Storage or Warehousing would be checked or marked.

An alphabetized synonym list for the following Property Use codes is presented in Appendix B.

PROPERTY USE CODES

Assembly

- 111 Bowling establishment.
- 112 Billiard center, pool hall.
- 113 Electronic amusement center. Includes video arcades and the like.
- 114 Ice rink. Includes indoor or outdoor facilities for use exclusively as ice rinks. Excludes combination ice rinks/basketball or other uses (123).
- 115 Roller rink. Includes indoor or outdoor facilities for use exclusively as roller skating rinks or skateboard parks. Excludes facilities with multiple uses (123).
- 116 Swimming facility. Includes indoor or outdoor swimming pools, related cabanas, bathhouses, and equipment locations.
- 110 Fixed-use recreation places, other. Includes miniature golf courses, driving, and batting ranges.
- 121 Ballroom, gymnasium. Includes dance halls, basketball courts, indoor running tracks.
- 122 Convention center, exhibit hall. Includes large open hall without fixed seating, such as convention center, exhibit hall, armory hall, and field house.
- 123 Stadium, arena. Includes fixed seating in large areas, such as ballpark, football stadium, grandstand, and race track.
- 124 Playground or outdoor area with fixed recreational equipment.
- 129 Amusement center, indoor/outdoor. Includes carnivals, circuses. Excludes video arcades (113).
- 120 Variable-use amusement, recreation places, other.
- 131 Church, mosque. Includes synagogues, temples, chapels, religious educational facilities, and church halls.
- 134 Funeral parlor. Includes crematoriums, mortuaries, morgues, and mausoleums.

- 130 Places of worship, funeral parlors, other.
- 141 Athletic or health club. Includes YMCA or YWCA, lodge, swimming, and baths. If sleeping facilities are included, use 449.
- 142 Clubhouse associated with country club that includes golf, tennis, hunting, fishing, and riding activities.
- 143 Yacht club. Includes boating and yacht club facilities. Excludes marinas, boat mooring facilities (898); boat repair/refueling facilities (571); or boat sales, services, and repairs (579).
- 144 Casino, gambling clubs. Includes bingo halls. Use only where primary use is for gambling.
- 140 Clubs, other.
- 151 Library.
- 152 Museum. Includes art galleries, planetariums, and aquariums.
- 154 Memorial structure. Includes monuments and statues.
- 155 Courthouse. Includes courtrooms.
- 150 Public or government, other.
- 161 Restaurant or cafeteria. Places specializing in on-premises consumption of food. Includes carryout and drive-through restaurants.
- 162 Bar, nightclub, saloon, tavern, pub.
- 160 Eating, drinking places, other.
- 171 Airport passenger terminal. Includes heliports.
- 173 Bus station.
- 174 Rapid transit station. Includes subway stations, rail stations, light rail stations, monorail stations, and the like.
- 170 Passenger terminal, other.
- 181 Live performance theater.
- 182 Auditorium, concert hall.
- 183 Movie theater. Includes facilities designed exclusively for showing motion pictures.
- 185 Radio, television studio.
- 186 Film/Movie production studio. For film processing facilities, use (700). On the Fire Module, use Onsite Materials (714).
- 180 Studio, theater, other.
- 100 Assembly, other.

Educational

- 210 Schools, non-adult, other.
- 211 Preschool, not in same facility with other grades. Includes nursery schools. Excludes kindergartens (213) and daycare facilities (254, 255).
- 213 Elementary school. Includes kindergarten.
- 215 High school, junior high, middle school.
- 241 Adult education center, college classroom. Includes any building containing adult education classrooms. The building may include other uses incidental to teaching.
- 254 Day care in commercial property.
- 255 Day care in residence, licensed.
- 256 Day care in residence, unlicensed.
- 200 Educational, other.

Health Care, Detention, and Correction

- 311 Nursing homes licensed by the State, providing 24-hour nursing care for four or more persons.
- 321 Mental retardation/development disability facility that houses, on a 24-hour basis, four or more persons.
- 322 Alcohol or substance abuse recovery center where four or more persons who are incapable of self-preservation are housed on a 24-hour basis.
- 323 Asylum, mental institution. Includes facilities for the criminally insane. Must include sleeping facilities.
- 331 Hospital: medical, pediatrics, psychiatric. Includes hospital-type infirmaries and specialty hospitals where treatment is provided on a 24-hour basis.
- 332 Hospices. Includes facilities where the care and treatment of the terminally ill is provided on a 24-hour basis.
- 341 Clinic, clinic-type infirmary. Includes ambulatory care facilities. Excludes facilities that provide overnight care (331).
- 342 Doctor, dentist, or oral surgeon office.

- 343 Hemodialysis unit, free standing, not a part of a hospital.
- 340 Clinics, doctors' offices, hemodialysis centers, other.
- 361 Jail, prison (not juvenile). Excludes police stations (365) or courthouses (153) where a jail is part of the facility.
- 363 Reformatory, juvenile detention center.
- 365 Police station.
- 300 Health care, detention, and correction, other. Includes animal care.

Residential

- 419 1- or 2-family dwelling, detached, manufactured home, mobile home not in transit, duplex.
- 429 Multifamily dwelling. Includes apartments, condos, townhouses, rowhouses, tenements.
- 439 Boarding/Rooming house. Includes residential hotels and shelters.
- 449 Hotel/Motel, commercial.
- 459 Residential board and care. Includes long-term care facilities, halfway houses, and assisted-care housing facilities. Excludes nursing facilities (311).
- 460 Dormitory-type residence, other.
- 462 Sorority house, fraternity house.
- 464 Barracks, dormitory. Includes nurses' quarters, military barracks, monastery/convent dormitories, bunk houses, workers' barracks.
- 400 Residential, other.

Mercantile, Business

- 511 Convenience store. Excludes service stations with associated convenience stores (571).
- 519 Food and beverage sales, grocery store. Includes supermarkets, specialty food stores, liquor stores, dairy stores, and delicatessens.
- 529 Textile, wearing apparel sales. Includes clothing, shoes, tailor furs, and dry goods shops.
- 539 Household goods, sales, repairs. Includes furniture, appliances, hardware, paint, wallpaper, music, and video stores.
- 549 Specialty shop. Sale of materials commonly used in the home, such as books, stationery, newspapers, tobacco, licit drugs, jewelry, leather goods, flowers, optical goods. Excludes liquor stores (519).
- 557 Personal service. Includes barber and beauty shops.
- 559 Recreational stores. Includes hobby supply, sporting goods, toy, pet, photographic supply, garden supply, lumber, and fireworks stores and sales.
- 564 Laundry, dry cleaning. Includes self-service facilities.
- 569 Professional supplies, services. Includes art supply, home maintenance service, and linen supply firms.
- 571 Service station, gas station. Includes LP-gas stations with associated convenience stores and boat refueling stations. Excludes vehicle sales (579).
- 579 Motor vehicle or boat sales, services, repair. Includes facilities that have incidental fuel dispensing.
- 581 Department or discount store. Includes stores selling a wide range of items that cannot readily be classified, such as mall kiosks, drug stores, and discount buying club stores that require memberships.
- 580 General retail, other.
- 592 Bank. Includes ATM kiosks when not part of another structure.
- 593 Office: veterinary or research. Excludes laboratories (629).
- 596 Post office or mailing firms.
- 599 Business office. Includes engineering, architectural, and technical offices. Excludes military offices (631).
- 500 Mercantile, business, other.

Industrial, Utility, Defense, Agriculture, Mining

- 614 Steam- or heat-generating plant.
- 615 Electric-generating plant, regardless of fuel source. Includes power generation for public or private use, power generation for rail transport, and nuclear powerplants that generate electrical power.
- 610 Energy production plant, other.
- 629 Laboratory or science laboratory. Includes chemical, medical, biological, physical materials testing, psychological, electronics, and general research laboratories. Also includes classrooms and offices incidental to laboratory facilities. Minor laboratory areas incidental to operations in another property should be considered part of the predominating property.
- 631 Defense, military installation.

- 632 Flight control tower.
- 635 Computer center. Includes computer laboratories.
- 639 Communications center. Includes radio, TV, and telecommunications facilities.
- 642 Electrical distribution. Includes electrical substations, transformers, and utility poles.
- 644 Gas distribution, gas pipeline.
- 645 Flammable liquid distribution system, flammable liquid pipeline.
- 647 Water utility. Includes collection, treatment, storage, and distribution of water.
- 648 Sanitation utility. Includes incinerators and industrial rubbish burners. Excludes dumps and landfills.
- 640 Utility or distribution system, other.
- 655 Crops or orchard. Includes plant nurseries and greenhouses as well as the processing or packaging of agricultural crops or fruit that occurs on the property.
- 659 Livestock production. Includes milking facilities, poultry and egg production, and fish hatcheries. Excludes crops or orchard (655), meat, and milk processing plants.
- 669 Forest, timberland, woodland. Includes standing timber without logging operations; wildlife preserves; timber tracts where planting, replanting, and conservation of forests are conducted; and areas where uncultivated materials such as wild rubber, barks, and roots are gathered. Also includes facilities for extracting, concentrating, and distilling of such materials when the facilities are located within the forest. Excludes grasslands and brush (931).
- 679 Mine, quarry. Mining and quarrying of raw and natural materials. Includes underground and surface mines, gravel pits, oil wells, coal mines, ore mines, salt mines, chemical mines, stone and gravel quarries, mineral mines, peat mines, natural gas wells, and the like.
- 600 Industrial, utility, defense, agriculture, mining, other.

Manufacturing, Processing

- 700 Manufacturing, processing. Properties where there is mechanical or chemical transformation of inorganic or organic substances into new products. Includes factories making products of all kinds and properties devoted to operations such as processing, assemblies, mixing, packing, finishing or decorating, and repairing.

Storage

- 807 Outside material storage area.
- 808 Outbuilding or shed. Includes tool and contractor sheds. Excludes contractor field offices (599).
- 816 Grain elevator, silo.
- 819 Livestock, poultry storage. Includes barns, stockyards, and animal pens.
- 839 Refrigerated storage. Includes storage lockers.
- 849 Outside storage tank.
- 880 Vehicle storage, other. Includes airplane and boat hangars. Excludes parking garages (881, 882).
- 881 Parking garage, detached residential garage. Includes detached parking structures associated with multifamily housing. If the garage is attached to the residence, use the 400 series.
- 882 Parking garage, general vehicle. Includes bus, truck, fleet, or commercial parking structures.
- 888 Fire station.
- 891 Warehouse. Includes all general storage facilities. Excludes refrigerated storage (839).
- 898 Dock, marina, pier, wharf. Includes associated passenger facilities.
- 899 Residential storage or self-storage units. Includes mini-storage units.
- 800 Storage, other.

Outside or Special Property

- 919 Dump, sanitary landfill. Includes recycling collection points.
- 921 Bridge, trestle.
- 922 Tunnel.
- 926 Outbuilding, protective shelter. Includes toll booths, weather shelters, mailboxes, telephone booths, privies, charitable collection boxes, and aerial tramways. Excludes parking garages.
- 931 Open land or field. Includes grasslands and brushlands. Excludes crops or areas under cultivation.
- 935 Campsite with utilities. Includes parks for camping trailers or recreational vehicles.

| | |
|-----|--|
| 936 | Vacant lot. Undeveloped land, not paved, may include incidental untended plant growth or building materials or debris. |
| 937 | Beach. |
| 938 | Graded and cared-for plots of land. Includes parks, cemeteries, golf courses, and residential yards. |
| 941 | Open ocean, sea, or tidal waters. Includes ports. Excludes piers and wharves (898). |
| 946 | Lake, river, stream. |
| 940 | Water area, other. |
| 951 | Railroad right-of-way. Includes light rail or rapid transit when their right-of-way usage is exclusive (i.e., not part of the street). |
| 952 | Railroad yard, switch or classification area. |
| 961 | Highway or divided highway. Includes limited-access highways with few intersections or at grade crossings. |
| 962 | Residential street, road, or residential driveway. |
| 963 | Street or road in commercial area. |
| 965 | Vehicle parking area. Excludes parking garages (882). Includes paved non-residential driveways. |
| 960 | Street, other. |
| 972 | Aircraft runway. |
| 973 | Aircraft taxiway. Includes all aircraft operation areas other than runways and aircraft loading areas (974). |
| 974 | Aircraft loading area. Includes helipads and helistops. |
| 981 | Construction site. Excludes buildings under construction or demolition. Buildings or structures under construction or demolition should be classified by their proposed or former use. |
| 982 | Oil or gas field. |
| 983 | Pipeline, power line, or other utility right-of-way. |
| 984 | Industrial plant yard area, not outdoor storage. |
| 900 | Outside or special property, other. |
| 000 | Property use, other. |
| NNN | None. |
| UUU | Undetermined. |

SECTION K

The entries for Section K are for identifying both the property occupant and the property owner involved in the incident. One completed example is presented at the end of Block K1 that shows all the field entries for both Blocks K1 and K2.

K1 Person/Entity Involved

Business Name

Definition

The full name of the company or agency occupying, managing, or leasing the property where the incident occurred.

Purpose

This element provides a basis for long-term analysis in recognizing patterns of repeated fires in the same or different locations over a period of time. The business name is required at the local government level to establish an official document of record.

Entry

Enter the full name of the company or agency occupying the property where the incident occurred. This may or may not be the same as the owner.

Example

A fire in the rear office of Rex Associates.

Telephone*Definition*

The telephone number of the person or entity involved in the incident.

Purpose

This field collects additional information on the person or entity involved, which may be required at a later date.

Entry

Enter the area code and telephone number in the spaces provided.

Example

Rex Associates' telephone number is (828) 867-5309.

Person Involved*Definition*

The full name of the person involved in the incident. If an entity, enter the name under Business Name at the top of Block K1.

Purpose

This information provides a basis for long-term analysis in recognizing patterns of repeated incidents in the same or different locations over a period of time. The name of the person involved is required at the local government level to establish an official document of record.

Entry

Enter the full name of the person as normally written. Enter the name using the format: prefix, first name, middle initial, last name, and suffix. If the name is unknown, several available resources may be checked for this information, such as street directory publications, utility company records, or other public agencies. Leave blank if unknown. Name prefixes and suffixes are as follows:

| Name Prefix | | Name Suffix | |
|-------------|----------|-------------|--------------------------|
| MR | Mr. | JR | Junior |
| MRS | Mrs. | SR | Senior |
| MS | Ms. | I | The First |
| DR | Doctor | II | The Second |
| REV | Reverend | III | The Third |
| | | IV | The Fourth |
| | | V | The Fifth |
| | | MD | Medical Doctor |
| | | DDS | Doctor of Dental Science |

Example

The manager's name is Mr. Morgan I. Teal, Jr.

Address

Definition

The address of the person or entity involved in the incident.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the address where the person or entity involved in the incident can be contacted. The full address includes the street number, prefix, street or highway name, street type, and suffix. (For a more detailed explanation of the address components, see Section B of this module.)

Example

The manager who reported and attempted to put out the fire lives at 1001 Wilson Street.

Post Office Box (P.O. Box)

Definition

The number of a rented compartment in a post office for the storage of mail that is picked up by the business occupant.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the post office box number in the spaces provided. Leave blank if not applicable.

Apartment, Suite, or Room

Definition

The number of the specific apartment, suite, or room where the incident occurred.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the apartment, suite, or room number in the block. Leave blank if not applicable.

Example

The manager's apartment was 2-B.

City

Definition

The city where the person or entity involved in the incident lives.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the city associated with the person's or entity's address.

Example

The manager lived in Asheville.

State

Definition

The State or U.S. territory where the person or entity involved in the incident lives.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident, and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the local or State level.

Entry

Enter the abbreviation for the State or U.S. territory associated with the person's or entity's address.

Example

Asheville is in North Carolina and is entered as NC.

☛ A list of State/territory abbreviations is on page 3-5.

ZIP Code

Definition

A numerical code assigned by the U.S. Postal Service to all jurisdictions within the United States and U.S. Territories.

Entry

Enter the full name of the company or agency that owns the property where the incident occurred. If the owner is the same as the person or entity listed in Block K1, check or mark the box at the top of the K2 block and skip to Section L.

Telephone

Definition

The telephone number of the property owner involved in the incident.

Purpose

This field collects additional information on the owner of the property involved, which may be required at a later date.

Entry

Enter the area code and telephone number of the owner in the spaces provided.

Owner Name

Definition

The full name of the person who owns the property where the incident occurred. If an entity, enter the name under Business Name at the top of Block K2.

Purpose

This information provides a basis for long-term analysis in recognizing patterns of repeated incidents. The name of the owner of the property involved is required at the local government level to establish an official document of record.

Entry

Enter the full name of the person as normally written. Enter the name using the format: prefix, first name, middle initial, last name, and suffix. If the owner name is unknown, several available resources may be checked for this information, such as street directory publications, utility company records, or other public agencies. Leave blank if unknown.

☛ Name prefixes and suffixes are listed in Block K1.

Address

Definition

The address of the owner of the property where the incident occurred.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident. This information is a critical part of the documentation of the incident at the local level and may be used by jurisdictions to help investigate the cause of the fire and for insurance purposes.

Entry

Enter the address where the owner of the property where the incident occurred can be contacted. The full address includes the street number, prefix, street or highway name, street type, and suffix. (For a more detailed explanation of the address components, see Section B of this module.)

Post Office Box (P.O. Box)

Definition

The number of a rented compartment in a post office for the storage of mail that is picked up by the owner.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident. The address is required at the local government level to establish an official document of record.

Entry

Enter the post office box number in the spaces provided. Leave blank if not applicable.

Apartment, Suite, or Room

Definition

The number of the specific apartment, suite, or room of the owner of the property involved in the incident.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident. The address is required at the local government level to establish an official document of record.

Entry

Enter the apartment, suite, or room number in the block. Leave blank if not applicable.

City

Definition

The city where the owner of the property involved in the incident lives, or the city that is used in the mailing address if the property is not located within city limits.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident. The address is required at the local government level to establish an official document of record.

Entry

Enter the city associated with the owner's address.

State*Definition*

The State or U.S. territory where the owner of the property lives.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident, and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the State level.

Entry

Enter the abbreviation for the State or U.S. territory associated with the owner's address. If the owner lives outside the United States or its territories, enter the code for "Other" (OO).

☛ A list of State/territory abbreviations is on page 3–5.

ZIP Code*Definition*

A numerical code assigned by the U.S. Postal Service to all jurisdictions within the United States.

Purpose

The complete address provides local authorities with the location of the person or entity who owns the property involved in the incident, and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the State level.

Entry

Enter the postal ZIP code associated with the owner's address. Include the Plus Four digits of the ZIP code if known.

SECTION L**L Remarks**

The Remarks section is an area for any comments that might be made concerning the incident. It is also a place to describe what happened, fire department operations, or unusual conditions encountered. Use this space to describe the incident in your own words. Of particular importance are observations that could aid investigators. Use additional sheets (i.e., Supplemental Form (NFIRS-1S)) as necessary. Additional sheets must have Section A at the top of each sheet completed.

This section also includes an instructional box (paper form only) intended to provide guidance to the person filling out the report. The block indicates whether a Fire Module or Structure Fire Module is required according to the Incident Type recorded in Section C of this module.

| Fire Module Required? | |
|--|--|
| Check the box that applies and then complete the Fire Module based on Incident Type, as follows: | |
| <input type="checkbox"/> Buildings 111 | Complete Fire & Structure Modules |
| <input type="checkbox"/> Special structure 112 | Complete Fire Module & Section I, Structure Module |
| <input type="checkbox"/> Confined 113–118 | Basic Module Only |
| <input type="checkbox"/> Mobile property 120–123 | Complete Fire & Structure Modules |
| <input type="checkbox"/> Vehicle 130–138 | Complete Fire Module |
| <input type="checkbox"/> Vegetation 140–143 | Complete Fire or Wildland Module |
| <input type="checkbox"/> Outside rubbish fire 150–155 | Basic Module Only |
| <input type="checkbox"/> Special outside fire 160 | Complete Fire or Wildland Module |
| <input type="checkbox"/> Special outside fire 161–164 | Complete Fire Module |
| <input type="checkbox"/> Crop fire 170–173 | Complete Fire or Wildland Module |

SECTION M

Section M requires the identification and signatures of the person completing the incident report and his/her supervisor. A completed example of the fields used is presented at the end of this section.

M Authorization

Officer in Charge

Definition

The officer in charge is the ranking fire service person dealing with the incident. Position refers to the person's rank, while assignment refers to the job held at the time of the incident. The date is the day the form is signed.

Purpose

The signature and the date make the report a legal document and indicate a source for further information on the incident.

Entry

Enter the personnel or ID number as assigned by the fire department, the position, and the assignment of the officer in charge of the incident. That officer should then sign and date the report after he/she has reviewed and agreed with the information.

Example

The officer in charge was Captain John Hart.

Member Making Report

If the member making the report is the same as the officer in charge, check or mark the box by the member ID and skip the rest of Section M.

Definition

The member of the fire department who completed the report.

Purpose

When someone other than the officer in charge completes the report, the signature of that person indicates a source for further information on the incident. In these cases, the officer in charge should review the completed report and sign it as well.

Entry

Enter the personnel or ID number as assigned by the fire department, the position, and the assignment of the member completing the report. That member should then sign and date the report after he/she has reviewed and agreed with the information.

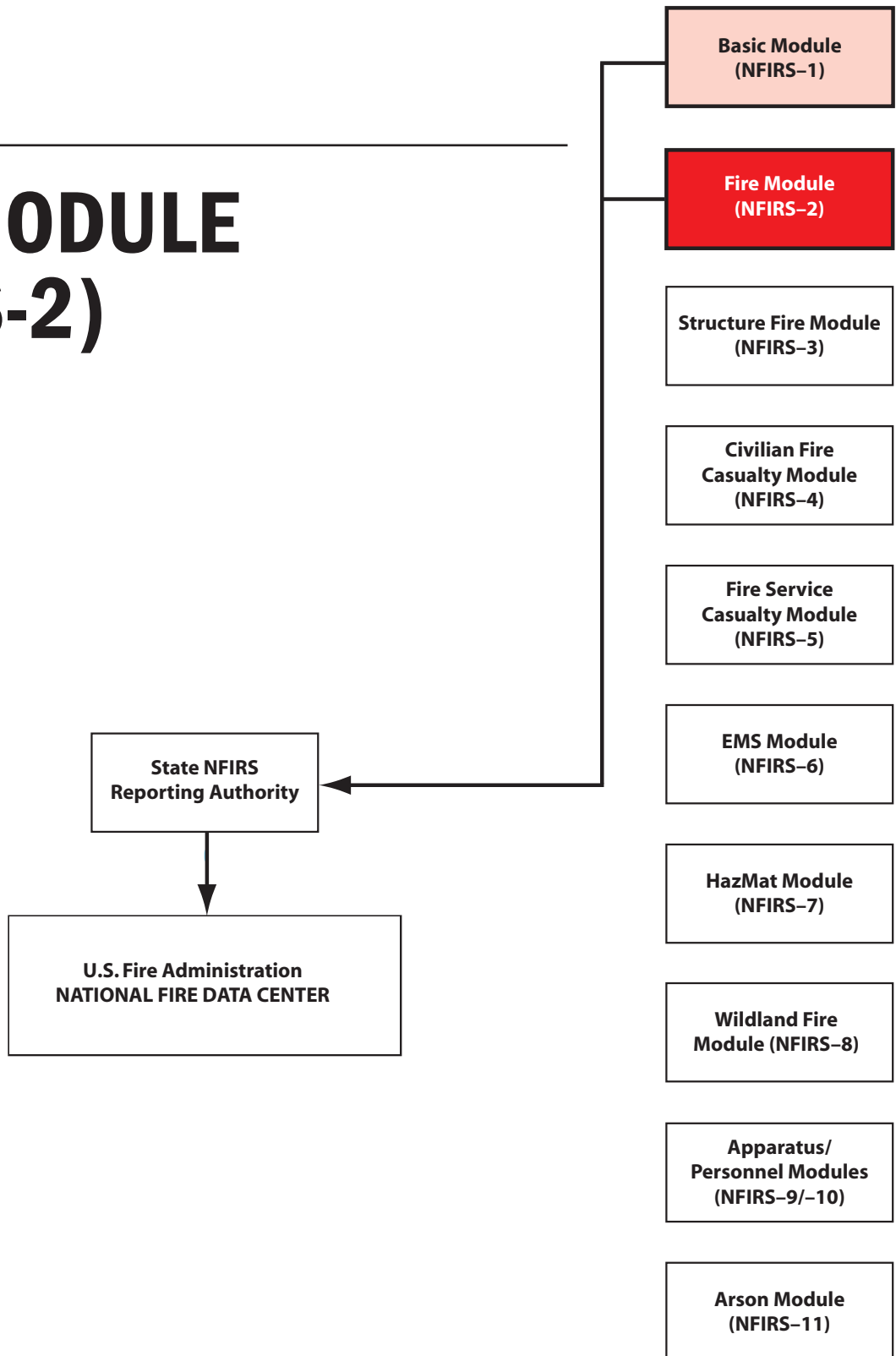
Example

The person completing the report was Firefighter Kate Ivey:

| M Authorization | | | | | | | | | | | | | | | |
|--|---|-------------------------|--------------------------|------------------|--------------------------|------------------|------------------|------------|------------------|-------|-------|------|---------------|------|---------------|
| <input type="checkbox"/> <small>Check box if same as Officer in charge.</small> | <table border="1"> <tr> <td>Officer in charge ID</td> <td>1 1 9 9</td> <td>Signature</td> <td>[Signature by John Hart]</td> <td>Position or rank</td> <td>Captain</td> <td>Assignment</td> <td>Fire suppression</td> <td>Month</td> <td>0 1</td> <td>Day</td> <td>0 7</td> <td>Year</td> <td>2 0 0 2</td> </tr> </table> | Officer in charge ID | 1 1 9 9 | Signature | [Signature by John Hart] | Position or rank | Captain | Assignment | Fire suppression | Month | 0 1 | Day | 0 7 | Year | 2 0 0 2 |
| Officer in charge ID | 1 1 9 9 | Signature | [Signature by John Hart] | Position or rank | Captain | Assignment | Fire suppression | Month | 0 1 | Day | 0 7 | Year | 2 0 0 2 | | |
| <input checked="" type="checkbox"/> <small>Officer in charge.</small> | <table border="1"> <tr> <td>Member making report ID</td> <td>2 1 0 7</td> <td>Signature</td> <td>[Signature by Kate Ivey]</td> <td>Position or rank</td> <td>Firefighter</td> <td>Assignment</td> <td>Fire suppression</td> <td>Month</td> <td>0 1</td> <td>Day</td> <td>0 7</td> <td>Year</td> <td>2 0 0 2</td> </tr> </table> | Member making report ID | 2 1 0 7 | Signature | [Signature by Kate Ivey] | Position or rank | Firefighter | Assignment | Fire suppression | Month | 0 1 | Day | 0 7 | Year | 2 0 0 2 |
| Member making report ID | 2 1 0 7 | Signature | [Signature by Kate Ivey] | Position or rank | Firefighter | Assignment | Fire suppression | Month | 0 1 | Day | 0 7 | Year | 2 0 0 2 | | |

Chapter 4

FIRE MODULE (NFIRS-2)



A FDID Star State Star Incident Date MM DD YYYY Star Station Incident Number Star Exposure Star Delete Change **NFIRS-2 Fire**

B Property Details

B1 Not Residential
Estimated number of residential living units in building of origin *whether or not all units became involved.*

B2 Buildings not involved
Number of buildings involved

B3 None Less than one acre
Acres burned (outside fires)

C On-Site Materials or Products None
Complete if there were any significant amounts of commercial, industrial, energy, or agricultural products or materials on the property, *whether or not they became involved.*

Enter up to three codes. Check one box for each code entered.

On-site material (1) _____

On-site material (2) _____

On-site material (3) _____

On-Site Materials Storage Use

1 Bulk storage or warehousing
2 Processing or manufacturing
3 Packaged goods for sale
4 Repair or service
U Undetermined

D Ignition

D1 _____ Star
Area of fire origin

D2 _____ Star
Heat source

D3 _____ Star 1 Check box if fire spread was confined to object of origin.
Item first ignited

D4 _____
Type of material first ignited
Required only if item first ignited code is 00 or <70.

E1 Cause of Ignition Star
 Check box if this is an exposure report. Skip to Section G

1 Intentional
2 Unintentional
3 Failure of equipment or heat source
4 Act of nature
5 Cause under investigation
U Cause undetermined after investigation

E2 Factors Contributing to Ignition Star None

Factor contributing to ignition (1) _____

Factor contributing to ignition (2) _____

E3 Human Factors Contributing to Ignition Star
Check all applicable boxes None

1 Asleep
2 Possibly impaired by alcohol or drugs
3 Unattended person
4 Possibly mentally disabled
5 Physically disabled
6 Multiple persons involved
7 Age was a factor

Estimated age of person involved _____

1 Male 2 Female

F1 Equipment Involved in Ignition None If equipment was not involved, skip to Section G.

Equipment Involved _____

Brand _____

Model _____

Serial # _____

Year _____

F2 Equipment Power Source _____
Equipment Power Source

F3 Equipment Portability

1 Portable
2 Stationary

Portable equipment normally can be moved by one or two persons, is designed to be used in multiple locations, and requires no tools to install.

G Fire Suppression Factors None
Enter up to three codes.

Fire suppression factor (1) _____

Fire suppression factor (2) _____

Fire suppression factor (3) _____

H1 Mobile Property Involved None

1 Not involved in ignition, but burned
2 Involved in ignition, but did not burn
3 Involved in ignition and burned

Mobile property model _____

License Plate Number _____ State _____ VIN _____

H2 Mobile Property Type and Make

Mobile property type _____

Mobile property make _____

Year _____

Local Use

Pre-Fire Plan Available
Some of the information presented in this report may be based upon reports from other agencies:

Arson report attached
 Police report attached
 Coroner report attached
 Other reports attached

Structure fire? Please be sure to complete the Structure Fire form (NFIRS-3).

CHAPTER 4 • FIRE MODULE (NFIRS-2)

The Fire Module (NFIRS-2) is completed for incidents involving a noncontained fire. Each section or block in the Fire Module asks for information on particular types of fires or items involved in the fire.

This module should be completed for Incident Types 100, 111, 112, 120–143, 160–173, and 170–173 found in Section C of the Basic Module. The optional Wildland Fire Module may be used instead of the Fire Module for Incident Types 140–143, 160, 170–173, 631, and 632. Users may also optionally complete the Fire Module for confined fires (Incident Types 113–118), although it is not required.

SECTION A

The guidance and directions for completing Section A of the Fire Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Fire Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

Enter the same exposure number found in Section A of the Basic Module.

Delete/Change

Definition

Indicates a change to information submitted on a previous Fire Module or the deletion of an incorrect report.

Purpose

To delete or correct previously reported information.

Entry

Delete: Check or mark this box when you have previously submitted data on this incident and now want to have the data on this incident deleted from the database. If this box is marked, complete Section A and leave the rest of the report blank. This will delete all data regarding the incident. Forward the report according to your normally established procedures.

Change: Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

Property Details

Section B collects details about the specific property involved in the fire, whether a structure or an open piece of land.

B1 Number of Residential Living Units

Definition

The estimated total number of residential living units in the building of origin, whether or not all of the units became involved in the fire.

☛ This field is required when the Property Use on the Basic Module (Section J) is coded in the 400s.

Purpose

This information permits analysis of the fire problem by specific property use details. Information on the number of residential living units in the fire building provides a measure of the potential human exposure and can assist in targeting fire prevention and suppression programs.

The ☆ denotes a required field.

Entry

Enter the estimated total number of residential living units in the building of origin, whether or not all the units became involved or were occupied at the time of the fire. If the fire did not occur in a residential property, check or mark the Not Residential box.

One- and two-family dwelling: Enter 1 or 2 as appropriate.

Apartment buildings, condominiums, townhouses, and rowhouses: Enter the number of separately owned or rented units in the building of origin.

Hotels and motels: Enter the number of lodging units in the building of origin.

Dormitories, rooming houses, and live-in-care centers: Enter the number of beds.

Example

For an apartment fire in a high-rise building with 100 total apartments, enter “100” for the number of residential living units:

| | |
|---------------------------|---|
| B Property Details | |
| B1 | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px;"> 1 0 0 </div> <div style="margin-left: 20px;"> <input type="checkbox"/> Not Residential </div> </div> <p style="font-size: 0.8em; margin-top: 5px;">Estimated number of residential living units in building of origin <i>whether or not all units became involved</i></p> |
| B2 | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; width: 60px;"> </div> <div style="margin-left: 20px;"> <input type="checkbox"/> Buildings not involved </div> </div> <p style="font-size: 0.8em; margin-top: 5px;">Number of buildings involved</p> |
| B3 | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; width: 100px;"> , </div> <div style="margin-left: 20px;"> <input type="checkbox"/> None <input type="checkbox"/> Less than one acre </div> </div> <p style="font-size: 0.8em; margin-top: 5px;">Acres burned (outside fires)</p> |

B2 **Number of Buildings Involved**

Definition

The number of buildings directly involved in the fire. Each building involved in the fire should be documented as a separate exposure.

Purpose

This element helps measure the size of the fire, which can assist with analyzing issues such as exposure protection and building density.

Entry

Enter the total number of buildings involved in the fire. If the fire was confined to the building of origin, enter a “1.” If no buildings were involved, check or mark the Buildings Not Involved box.

Example

For a fire in a single-family house that extended to a neighboring house due to flame damage, enter “2” for the number of buildings involved:

| B Property Details | |
|--|--|
| B1 <input type="text" value="1"/> Estimated number of residential living units in building of origin <i>whether or not all units became involved</i> | <input type="checkbox"/> Not Residential |
| B2 <input type="text" value="2"/> Number of buildings involved | <input type="checkbox"/> Buildings not involved |
| B3 <input type="text" value="10"/> , <input type="text"/> Acres burned (outside fires) | <input type="checkbox"/> None <input type="checkbox"/> Less than one acre |

B3 Number of Acres Burned (outside fires)

Definition

The estimated number of acres burned in the fire incident.

Purpose

The outside fire situation can be assessed by examining the extent of the property involved. Information on the number of acres burned can assist in targeting fire prevention programs and planning fire suppression activities.

Entry

Enter the total number of acres burned in the fire. If it was not a brush/grass fire, or no acres were burned, or less than one acre burned, check or mark the appropriate box.

Example

For a fire that burned approximately 10 acres of a field, enter “10”:

| B Property Details | |
|--------------------|---|
| B1 | <div style="display: flex; justify-content: space-between;"> <div style="border-bottom: 1px solid black; width: 100px; margin-bottom: 5px;"></div> <div style="text-align: right;"><input checked="" type="checkbox"/> Not Residential</div> </div> <p style="font-size: small;">Estimated number of residential living units in building of origin <i>whether or not all units became involved</i></p> |
| B2 | <div style="display: flex; justify-content: space-between;"> <div style="border-bottom: 1px solid black; width: 100px; margin-bottom: 5px;"></div> <div style="text-align: right;"><input checked="" type="checkbox"/> Buildings not involved</div> </div> <p style="font-size: small;">Number of buildings involved</p> |
| B3 | <div style="display: flex; justify-content: space-between;"> <div style="border-bottom: 1px solid black; width: 100px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100px; margin-bottom: 5px; text-align: right;">1,0</div> <div style="text-align: right;"><input type="checkbox"/> None</div> </div> <p style="font-size: small;">Acres burned (outside fires)</p> <div style="text-align: right;"><input type="checkbox"/> Less than one acre</div> |

SECTION C

C On-Site Materials or Products and On-Site Materials Storage Use

Definition

Identifies any significant amounts of commercial, industrial, energy, or agricultural products or materials on the property, whether or not they became involved in the fire.

- ☛ If a Property Use in the 500s, 600s, 700s, or 800s was listed in Block J of the Basic Module, then this field is required. This field may also be useful for other property uses.

Purpose

This element permits analysis of the fire problem by the materials and products present on the property involved in the fire. Information on materials and products present can assist in targeting fire prevention and suppression programs and identifying training and equipment needs.

Entry

Enter the three-digit codes and descriptions for up to three of the most significant on-site materials or products, whether or not they became involved in the fire. Check or mark the Undetermined box if the on-site material is unknown. If there is no on-site material, check or mark the None box and go to Block D.

For each material or product entered, check or mark the box to the right that best describes whether the material is being stored, processed or manufactured, sold, or repaired or serviced on the property (required whenever an On-Site Material or Product entry is made).

- ☛ Storage incidental to a retail or industrial operation does not have to be reported separately. Bulk storage or warehousing is generally associated with storage of large quantities of raw material awaiting transformation into a finished product or storage of finished products awaiting shipment for sale or final use.

Example

A lumberyard involved in the fire incident was coded as an outside material storage area in Section J of the Basic Module (Property Use code 807); enter “311” Lumber as the on-site material or product:

C On-Site Materials or Products **None**

Complete if there were any significant amounts of commercial, industrial, energy, or agricultural products or materials on the property, whether or not they became involved

Enter up to three codes. Check one or more boxes for each code entered.

| | |
|--|---|
| <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;"> 3 1 1 Lumber, sawed wood <small>On-site material (1)</small> </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;"> k <small>On-site material (2)</small> </div> <div style="border: 1px solid black; padding: 2px;"> <small>On-site material (3)</small> </div> | <p>On-Site Materials Storage Use</p> <p>1 <input checked="" type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service U <input type="checkbox"/> Undetermined</p> <p>1 <input type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service U <input type="checkbox"/> Undetermined</p> <p>1 <input type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service U <input type="checkbox"/> Undetermined</p> |
|--|---|

☛ An alphabetized synonym list for the following On-Site Materials or Products codes is presented in Appendix B.

ON-SITE MATERIALS OR PRODUCTS CODES

Food, Beverages, Agriculture

Food

- 111 Baked goods.
- 112 Meat products. Includes poultry and fish.
- 113 Dairy products.
- 114 Produce, fruit, or vegetables.
- 115 Sugar, spices.
- 116 Deli products.
- 117 Cereals, grains; packaged.
- 118 Fat/Cooking grease. Includes lard and animal fat.
- 110 Food, other.

Beverages

- 121 Alcoholic beverage.
- 122 Nonalcoholic beverage.
- 120 Beverages, other.

Agriculture

- 131 Trees, plants, flowers.
- 132 Feed, grain, seed.
- 133 Hay, straw.
- 134 Crop, not grain.
- 135 Livestock.
- 136 Pets.

- 137 Pesticides.
- 138 Fertilizer.
- 130 Agriculture, other.
- Food, beverages, agriculture, other**
- 100 Foods, beverages, agriculture, other.

Personal and Home Products

Fabrics

- 211 Curtains, drapes.
- 212 Linens.
- 213 Bedding.
- 214 Cloth, yarn, dry goods.
- 210 Fabrics, other.

Wearable products

- 221 Clothes.
- 222 Footwear.
- 223 Eyeglasses.
- 225 Perfumes, colognes, cosmetics.
- 226 Toiletries.
- 220 Wearable products, other.

Accessories

- 231 Jewelry, watches.
- 232 Luggage, suitcases.
- 233 Purses, satchels, briefcases, wallets, belts, backpacks.
- 230 Accessories, other.

Furnishings

- 240 Furnishings, other.
- 241 Furniture.
- 242 Beds, mattresses.
- 243 Clocks.
- 244 Housewares.
- 245 Glass, ceramics, china, pottery, stoneware, earthenware.
- 246 Silverware.

Personal and home products, other

- 200 Personal and home products, other.

Raw Materials

Wood

- 311 Lumber, sawn wood.
- 312 Timber.
- 313 Cork.
- 314 Pulp
- 315 Sawdust, wood chips.
- 310 Wood, other.

Fibers

- 321 Cotton.
- 322 Wool.
- 323 Silk.
- 320 Fibers, other.

Animal skins

- 331 Leather.
- 332 Fur.
- 330 Animal skins, other.

Other raw materials

- 341 Ore.
- 342 Rubber.
- 343 Plastics.
- 344 Fiberglass.
- 345 Salt.
- 300 Raw materials, other

Paper Products, Rope**Paper products**

- 411 Newspapers, magazines.
- 412 Books.
- 413 Greeting cards.
- 414 Paper, rolled
- 415 Cardboard.
- 416 Packaged paper products. Includes stationery.
- 417 Paper records or reports.
- 410 Paper products, other.

Rope, twine, cordage

- 421 Rope, twine, cordage.

Paper products, rope, other

- 400 Paper products, rope, other.

Flammables, Chemicals, Plastics**Flammables, combustible liquids**

- 511 Gasoline, diesel fuel.
- 512 Flammable liquid. Excludes gasoline (511).
- 513 Combustible liquid. Includes heating oil. Excludes diesel fuel (511).
- 514 Motor oil.
- 515 Heavy oils, grease, noncooking related.
- 516 Asphalt.
- 517 Adhesive, resin, tar.
- 510 Flammables, combustible liquids, other.

Flammable gases

- 521 Natural gas.
- 522 LP gas, butane, propane.
- 523 Hydrogen gas.
- 520 Flammable gases, other.

Solid fuel, coal type

- 531 Charcoal.
- 532 Coal.
- 533 Peat.
- 534 Coke.
- 530 Solid fuel, coal type, other.

Chemicals, drugs

- 541 Hazardous chemicals.
- 542 Nonhazardous chemicals.
- 543 Cleaning supplies.
- 544 Pharmaceuticals, drugs.
- 545 Illegal drugs.
- 540 Chemicals, drugs, other.

Radioactive materials

- 551 Radioactive materials.

Flammables, chemicals, plastics, other

- 500 Flammables, chemicals, plastics, other.

Construction, Machinery, Metals**Machinery, tools**

- 611 Industrial machinery.
- 612 Machine parts.
- 613 Tools (power and hand tools).
- 610 Machinery, tools, other.

Construction supplies

- 621 Hardware products.
- 622 Construction and home improvement products. Excludes pipes and fittings (623), electrical parts and supplies (626), insulation (627), lumber (311).
- 623 Pipes, fittings.
- 624 Stone-working materials.
- 625 Lighting fixtures and lamps.
- 626 Electrical parts, supplies, equipment. Excludes light fixtures (625).
- 627 Insulation.
- 628 Abrasives. Includes sandpaper and grinding materials.
- 629 Fencing, fence supplies.
- 620 Construction supplies, other.

Floor and wall coverings

- 631 Carpets, rugs.
- 632 Linoleum, tile.
- 633 Ceramic tile.
- 634 Wallpaper.
- 635 Paint.
- 630 Floor and wall coverings, other.

Metal products

- 641 Steel, iron products.
- 642 Nonferrous metal products. Includes aluminum products (no combustible metals).
- 643 Combustible metal products. Includes magnesium and titanium.
- 640 Metal products, other.

Construction, machinery, metals, other

- 600 Construction, machinery, metals, other.

Appliances, Electronics, Medical, Laboratory**Appliances, electronics**

- 711 Appliances. Includes refrigerators, stoves, irons.
- 712 Electronic parts, supplies, equipment. Includes components such as circuit boards, radios, computers.

- 713 Electronic media. Includes diskettes, CD-ROMs, recorded music.
- 714 Photographic equipment, supplies, materials. Includes cameras, film. Excludes digital electronic cameras (712) and electronic storage media (713).
- 710 Appliances, electronics, other.

Medical, laboratory products

- 721 Dental supplies.
- 722 Medical supplies. Includes surgical products.
- 723 Optical products.
- 724 Veterinary supplies.
- 725 Laboratory supplies.
- 720 Medical, laboratory products, other.

Appliances, electronics, medical, laboratory, other

- 700 Appliances, electronics, medical, laboratory, other.

Vehicles, Vehicle Parts**Motor vehicles and parts**

- 811 Autos, trucks, buses, recreational vehicles, riding mowers, farm vehicles.
- 812 Construction vehicles.
- 813 Motor vehicle parts. Excludes tires (814).
- 814 Tires.
- 810 Motor vehicles and parts, other.

Watercraft

- 821 Boats, ships.
- 820 Watercraft, other.

Aircraft

- 830 Aircraft, other.
- 831 Planes, airplanes.
- 832 Helicopters.

Rail

- 841 Trains, light rail, rapid transit cars.
- 842 Rail equipment.
- 840 Rail, other.

Non-motorized vehicles

- 851 Bicycles, tricycles, unicycles. Includes tandem bicycles.
- 850 Non-motorized vehicles, other.

Other Products**Containers, packing materials**

- 911 Bottles, barrels, boxes.
- 912 Packing material.
- 913 Pallets.
- 910 Containers, packing materials, other.

Previously owned products

- 921 Antiques.
- 922 Collectibles.
- 923 Used merchandise.
- 920 Previously owned products, other.

Ordnance, explosives, fireworks

- 931 Guns.
- 932 Ammunition.
- 933 Explosives
- 934 Fireworks, commercially made.
- 935 Rockets, missiles.
- 930 Ordnance, explosives, fireworks, other.

Recreation, arts products

- 941 Musical instruments.
- 942 Hobby, crafts. Excludes artwork (943).
- 943 Art supply/artwork. Includes finished works, paint, finishing materials.
- 944 Sporting goods. Includes balls, nets, rackets, protective equipment used in sport.
- 945 Camping, hiking, outdoor products. Includes related equipment such as portable stoves, rope.
- 946 Games, toys.
- 940 Recreation, art products, other.

Mixed sales products

- 951 Office supplies.
- 952 Restaurant supplies. Excludes food (110 series).
- 950 Mixed sales products, other.

Discarded material

- 961 Junkyard materials.
- 962 Recyclable materials. Includes materials gathered specifically for the purpose of recycling.
- 960 Discarded material, other.
- 963 Trash, not recyclable.

Other On-Site Materials

- 000 On-site materials, other.
- NNN None.
- UUU Undetermined.

ON-SITE MATERIALS STORAGE USE CODES

- 1 Bulk storage or warehousing.
- 2 Processing or manufacturing.
- 3 Packaged goods for sale.
- 4 Repair or service.
- N None.
- U Undetermined.

SECTION D

Ignition

Section D is intended to collect data on several factors related to the ignition of the fire including the area of fire origin, heat source, item first ignited, and type of material first ignited.

D1 Area of Fire Origin ☆

Definition

The primary use of the area where the fire started within the property. The area of origin may be a room, a portion of a room, a vehicle, a portion of a vehicle, or an open area devoted to a specific use. Every fire has an area of fire origin.

Purpose

Combined with data on the fire's ignition, knowing the area where the fire originated assists in determining the cause of the fire. Such information is useful for targeting fire prevention, investigation, and suppression efforts.

Entry

Enter the two-digit code and description that best describes the area of fire origin.

- For chimney fires, the area of fire origin is classified as the first area where ignition occurred. For example, if the chimney is associated with a fireplace in the family room, the code would be "14." The chimney is considered the Equipment Involved in Ignition (Section F).

Example

| D Ignition | | | | | | | |
|------------|---|---------|---|--------------------------|--|--------------------------|--|
| D1 | <table border="1"> <tr> <td>2</td> <td>1</td> <td>Bedroom</td> </tr> </table> <p>Area of fire origin ☆</p> | 2 | 1 | Bedroom | | | |
| 2 | 1 | Bedroom | | | | | |
| D2 | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Heat source ☆</p> | | | | | | |
| | | | | | | | |
| D3 | <table border="1"> <tr> <td></td> <td></td> <td></td> <td>1</td> <td><input type="checkbox"/></td> <td>Check box if fire spread was confined to object of origin.</td> </tr> </table> <p>Item first ignited ☆</p> | | | | 1 | <input type="checkbox"/> | Check box if fire spread was confined to object of origin. |
| | | | 1 | <input type="checkbox"/> | Check box if fire spread was confined to object of origin. | | |
| D4 | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Type of material first ignited</p> <p>Required only if item first ignited code is 00 or <70</p> | | | | | | |
| | | | | | | | |

A fire started in a bedroom (21) of a home:

- An alphabetized synonym list for the following Area of Fire Origin codes is presented in Appendix B.

AREA OF FIRE ORIGIN CODES

Means of Egress

- | | |
|----|---|
| 01 | Hallway corridor, mall. |
| 02 | Exterior stairway. Includes fire escapes, exterior ramps. |
| 03 | Interior stairway or ramp. Includes interior ramps. |
| 04 | Escalator: exterior, interior. |
| 05 | Entranceway, lobby. |
| 09 | Egress/exit, other. |

Assembly or Sales Areas (Groups of People)

- 11 Arena, assembly area with fixed seats for 100 or more people. Includes auditoriums, chapels, places of worship, class rooms, lecture halls, arenas, theaters.
- 12 Assembly area without fixed seats for 100 or more people. Includes ballrooms, bowling alleys, gymnasiums, multiuse areas, roller or ice skating rinks.
- 13 Assembly area without fixed seats for less than 100 people. Includes meeting rooms, classrooms, multiuse areas.
- 14 Common room, den, family room, living room, lounge, music room, recreation room, sitting room.
- 15 Sales area, showroom. Excludes display windows (56).
- 16 Art gallery, exhibit hall, library.
- 17 Swimming pool.
- 10 Assembly or sales areas, other.

Function Areas

- 21 Bedroom for less than five people. Includes jail or prison cells, lockups, patient rooms, sleeping areas.
- 22 Bedroom for more than five people. Includes barracks, dormitories, patient wards.
- 23 Dining room, cafeteria, bar area, beverage service area, canteen area, lunchroom, mess hall.
- 24 Cooking area, kitchen.
- 25 Bathroom, checkroom, lavatory, locker room, powder room, outhouse, portable toilet, sauna area.
- 26 Laundry area, wash house (laundry).
- 27 Office.
- 28 Personal service area. Includes barber/beauty salon area, exercise/health club, massage area.
- 20 Function areas, other.

Technical Processing Areas

- 31 Laboratory.
- 32 Dark room, photography area, printing area.
- 33 Treatment: first-aid area, surgery area (minor procedures).
- 34 Surgery area: major operations, operating room or theater, recovery room.
- 35 Computer room, control room or center, data processing center, electronic equipment area, telephone booth or area, radar room.
- 36 Stage area: performance, basketball court, boxing ring, dressing room (backstage), ice rink.
- 37 Projection room, spotlight area, stage light area.
- 38 Processing/manufacturing area, workroom, assembly area.
- 30 Technical processing areas, other.

Storage Areas

- 41 Storage room, area, tank, bin. Includes all areas where products are held awaiting process, shipment, use, sale.
- 42 Closet.
- 43 Storage: supplies or tools. Includes dead storage, maintenance supply room, tool room, basement (unfinished).
- 44 Records storage room, storage vault.
- 45 Shipping/receiving area: loading area, dock or bay, mail room, packing area.
- 46 Chute/container: trash, rubbish, waste. Includes compactor and garbage areas. Excludes incinerators (64).
- 47 Vehicle storage area: garage, carport.
- 40 Storage areas, other.

Service Areas

- 51 Dumbwaiter or elevator shaft.
- 52 Conduit, pipe, utility, or ventilation shaft.
- 53 Light shaft.
- 54 Chute. Includes laundry or mail chutes. Excludes trash chutes (46).
- 55 Duct. Includes HVAC, cable, exhaust.

- 56 Display window.
- 58 Conveyor.
- 50 Service areas, other.

Service or Equipment Areas

- 61 Machinery room or area. Includes elevator machinery room, engine room, head house, pump room, refrigeration room.
- 62 Heating room or area, water heater area.
- 63 Switchgear area, transformer vault.
- 64 Incinerator area.
- 65 Maintenance shop or area. Includes paint shop, repair shop, welding area, workshop.
- 66 Cell, test.
- 67 Enclosure, pressurized air.
- 68 Enclosure with enriched oxygen atmosphere.
- 60 Service or equipment areas, other.

Structural Areas

- 71 Substructure area or space, crawl space.
- 72 Exterior balcony, unenclosed porch. Excludes enclosed porches (93).
- 73 Ceiling and floor assembly, crawl space between stories.
- 74 Attic: vacant, crawl space above top story. Includes cupola, concealed roof/ceiling space, steeple.
- 75 Wall assembly, concealed wall space.
- 76 Wall surface, exterior.
- 77 Roof surface, exterior.
- 78 Awning.
- 70 Structural areas, other.

Transportation, Vehicle Areas

- 81 Operator/passenger area of transportation equipment.
- 82 Cargo/trunk area—all vehicles.
- 83 Engine area, running gear, wheel area.
- 84 Fuel tank, fuel line.
- 85 Separate operator/control area of transportation equipment. Includes bridges of ships, cockpit of planes. Excludes automobiles, trucks, buses (81).
- 86 Exterior, exposed surface.
- 80 Vehicle areas, other.

Outside Areas

- 91 Railroad right-of-way: on or near.
- 92 Highway, parking lot, street: on or near.
- 93 Courtyard, patio, terrace. Includes screened-in porches. Excludes unenclosed porches (72).
- 94 Open area, outside. Includes farmland, fields, lawns, parks, vacant lots.
- 95 Wildland, woods.
- 96 Construction/Renovation area.
- 97 Multiple areas.
- 98 Vacant structural area.
- 90 Outside areas, other.

Other Area of Fire Origin

- 00 Area of fire origin, other.
- UU Undetermined.

D2 Heat Source ☆

☛ Heat Source was known as Form of Heat of Ignition in NFIRS 4.1.

Definition

The heat source that ignited the Item First Ignited (Block D3) to cause the fire.

Purpose

This information, combined with other factors in the ignition sequence, permits analysis of how fires start. Also, some heat sources (e.g., cigarettes, lighters) are objects whose frequency of involvement in fires is of direct interest for fire prevention efforts.

Entry

Enter the two-digit code and description that best describes the heat source that ignited the fire.

Example

A discarded cigarette (61) ignited the bed (21):

| | | | | |
|-------------------|--|---------------------|---|---------------------|
| D Ignition | | | | |
| D1 | <table border="1"> <tr> <td>2</td> <td>1</td> <td>Bedroom</td> </tr> </table> <p>Area of fire origin ☆</p> | 2 | 1 | Bedroom |
| 2 | 1 | Bedroom | | |
| D2 | <table border="1"> <tr> <td>6</td> <td>1</td> <td>Discarded cigarette</td> </tr> </table> <p>Heat source ☆</p> | 6 | 1 | Discarded cigarette |
| 6 | 1 | Discarded cigarette | | |
| D3 | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Item first ignited ☆ 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin.</p> | | | |
| | | | | |
| D4 | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Type of material first ignited Required only if item first ignited code is 00 or <70</p> | | | |
| | | | | |

HEAT SOURCE CODES

Operating Equipment

- 11 Spark, ember, or flame from operating equipment.
- 12 Radiated or conducted heat from operating equipment.
- 13 Electrical arcing.
- 10 Heat from operating equipment, other.

Hot or Smoldering Object

- 41 Heat, spark from friction. Includes overheated tires.
- 42 Molten, hot material. Includes molten metal, hot forging, hot glass, hot metal fragment, brake shoe, hot box, and slag from arc welding operations.
- 43 Hot ember or ash. Includes hot coals, coke, and charcoal; and sparks or embers from a chimney that ignite

- the roof of the same structure. Excludes flying brand, embers, and sparks (83); and embers accidentally escaping from operating equipment (11).
- 40 Hot or smoldering object, other.

Explosives, Fireworks

- 51 Munitions. Includes bombs, ammunition, and military rockets.
- 53 Blasting agent, primer cord, black powder fuse. Includes fertilizing agents, ammonium nitrate, and sodium, potassium, or other chemical agents.
- 54 Fireworks. Includes sparklers, paper caps, party poppers, and firecrackers.
- 55 Model and amateur rockets.
- 56 Incendiary device. Includes Molotov cocktails and arson sets.
- 50 Explosive, fireworks, other.

Other Open Flame or Smoking Materials

- 61 Cigarette.
- 62 Pipe or cigar.
- 63 Heat from undetermined smoking material.
- 64 Match.
- 65 Lighter: cigarette lighter, cigar lighter.
- 66 Candle.
- 67 Warning or road flare; fusee.
- 68 Backfire from internal combustion engine. Excludes flames and sparks from an exhaust system (11).
- 69 Flame/torch used for lighting. Includes gas light and gas-/liquid-fueled lantern.
- 60 Heat from open flame or smoking materials, other.

Chemical, Natural Heat Sources

- 71 Sunlight. Usually magnified through glass, bottles, etc.
- 72 Spontaneous combustion, chemical reaction.
- 73 Lightning discharge.
- 74 Other static discharge. Excludes electrical arcs (13) or sparks (11).
- 70 Chemical, natural heat sources, other.

Heat Spread From Another Fire. Excludes operating equipment.

- 81 Heat from direct flame, convection currents spreading from another fire.
- 82 Radiated heat from another fire. Excludes heat from exhaust systems of fuel-fired, fuel-powered equipment (12).
- 83 Flying brand, ember, spark. Excludes embers, sparks from a chimney igniting the roof of the same structure (43).
- 84 Conducted heat from another fire.
- 80 Heat spread from another fire, other.

Other Heat Sources

- 97 Multiple heat sources, including multiple ignitions. If one type of heat source was primarily involved, use that classification.
- 00 Heat sources, other.
- UU Undetermined.

D3 Item First Ignited ☆

☛ Item First Ignited was known as Form of Material Ignited in NFIRS 4.1.

Definition

The use or configuration of the item or material first ignited by the heat source. This block identifies the first item that had sufficient volume or heat intensity to extend to uncontrolled or self-perpetuating fire.

Purpose

This data element permits analysis of how fires start and spread. A study of this entry also helps assess the need for flammability and other materials standards. This information is helpful to manufacturers for product improvement, as well as for fire prevention efforts.

Entry

Enter the two-digit code and description that best describes the item first ignited by the heat source.

☛ If fire spread was confined to the object of origin, check or mark the box (1) below the written entry. This is the only opportunity to enter this code—Confined to Object of Origin is not an option in Block J2 of the Structure Fire Module.

Example

Fire in a living room fireplace (14) ignited (11) creosote (95) that had built up in the chimney, causing a fire:

| | | | | |
|-------------------|--|-----------------------|---|-----------------------|
| D Ignition | | | | |
| D1 | <table border="1"> <tr> <td>1</td> <td>4</td> <td>Living room fireplace</td> </tr> </table> <p>Area of fire origin ☆</p> | 1 | 4 | Living room fireplace |
| 1 | 4 | Living room fireplace | | |
| D2 | <table border="1"> <tr> <td>1</td> <td>1</td> <td>Spark, ember, flame</td> </tr> </table> <p>Heat source ☆</p> | 1 | 1 | Spark, ember, flame |
| 1 | 1 | Spark, ember, flame | | |
| D3 | <table border="1"> <tr> <td>9</td> <td>5</td> <td>Creosote buildup</td> </tr> </table> <p>Item first ignited ☆ 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin.</p> | 9 | 5 | Creosote buildup |
| 9 | 5 | Creosote buildup | | |
| D4 | <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> <p>Type of material first ignited Required only if item first ignited code is 00 or <70</p> | | | |
| | | | | |

☛ An alphabetized synonym list for the following Item First Ignited codes is presented in Appendix B.

ITEM FIRST IGNITED CODES**Structural Component, Finish**

- 11 Exterior roof covering, surface, finish.
- 12 Exterior sidewall covering, surface, finish. Includes eaves.
- 13 Exterior trim, appurtenances. Includes doors, porches, and platforms.
- 14 Floor covering or rug/carpet/mat, surface.
- 15 Interior wall covering. Includes cloth wall coverings, wood paneling, and items permanently affixed to a wall or door. Excludes curtains and draperies (36) and decorations (42).
- 16 Interior ceiling covering or finish. Includes cloth permanently affixed to ceiling and acoustical tile.
- 17 Structural member or framing.
- 18 Thermal, acoustical insulation within wall, partition or floor/ceiling space. Includes fibers, batts, boards, loose fills.
- 10 Structural component or finish, other.

Furniture, Utensils. Includes built-in furniture.

- 21 Upholstered sofa, chair, vehicle seats.
- 22 Non-upholstered chair, bench.
- 23 Cabinetry. Includes filing cabinets, pianos, dressers, chests of drawers, desks, tables, and bookcases. Excludes TV sets, bottle warmers, and appliance housings (25).
- 24 Ironing board.
- 25 Appliance housing or casing.
- 26 Household utensils. Includes kitchen and cleaning utensils.
- 20 Furniture, utensils, other.

Soft Goods, Wearing Apparel

- 31 Mattress, pillow.
- 32 Bedding: blanket, sheet, comforter. Includes heating pads.
- 33 Linen, other than bedding. Includes towels and tablecloths.
- 34 Wearing apparel not on a person.
- 35 Wearing apparel on a person.
- 36 Curtain, blind, drapery, tapestry.
- 37 Goods not made up. Includes fabrics and yard goods.
- 38 Luggage.
- 30 Soft goods, wearing apparel, other.

Adornment, Recreational Material, Signs

- 41 Christmas tree.
- 42 Decoration.
- 43 Sign. Includes outdoor signs such as billboards.
- 44 Chips. Includes wood chips.
- 45 Toy, game.
- 46 Awning, canopy.
- 47 Tarpaulin, tent.
- 40 Adornment, recreational material, signs, other.

Storage Supplies

- 51 Box, carton, bag, basket, barrel. Includes wastebaskets.
- 52 Material being used to make a product. Includes raw materials used as input to a manufacturing or construction process. Excludes finished products.
- 53 Pallet, skid (empty). Excludes palletized stock (58).
- 54 Cord, rope, twine, yarn.

- 55 Packing, wrapping material.
- 56 Baled goods or material. Includes bale storage.
- 57 Bulk storage.
- 58 Palletized material, material stored on pallets.
- 59 Rolled, wound material. Includes rolled paper and fabrics.
- 50 Storage supplies, other.

Liquids, Piping, Filters

- 61 Atomized, vaporized liquid. Included are aerosols.
- 62 Flammable liquid/gas (fuel) in or escaping from combustion engines.
- 63 Flammable liquid/gas in or escaping from final container or pipe before engine or burner. Includes piping between the engine and the burner.
- 64 Flammable liquid/gas in or escaping from container or pipe. Excludes engines, burners, and their fuel systems.
- 65 Flammable liquid/gas, uncontained. Includes accelerants.
- 66 Pipe, duct, conduit, hose.
- 67 Pipe, duct, conduit, or hose covering. Includes insulating materials whether for acoustical or thermal purposes, and whether inside or outside the pipe, duct, conduit, or hose.
- 68 Filter. Includes evaporative cooler pads.
- 60 Liquids, piping, filters, other.

Organic Materials

- 71 Agricultural crop. Includes fruits and vegetables.
- 72 Light vegetation (not crop). Includes grass, leaves, needles, chaff, mulch, and compost.
- 73 Heavy vegetation (not crop). Includes trees and brush.
- 74 Animal, living or dead.
- 75 Human, living or dead.
- 76 Cooking materials. Includes edible materials for man or animal. Excludes cooking utensils (26).
- 77 Feathers or fur not on a bird or animal, but not processed into a product.
- 70 Organic materials, other.

General Materials

- 81 Electrical wire, cable insulation. Do not classify the insulation on the wiring as the item first ignited unless there were no other materials in the immediate area, such as might be found in a cable tray or electrical vault.
- 82 Transformer. Includes transformer fluids.
- 83 Conveyor belt, drive belt, V-belt.
- 84 Tire.
- 85 Railroad ties.
- 86 Fence, pole.
- 87 Fertilizer.
- 88 Pyrotechnics, explosives.

General Materials Continued

- 91 Book.
- 92 Magazine, newspaper, writing paper. Includes files.
- 93 Adhesive.
- 94 Dust, fiber, lint. Includes sawdust and excelsior.
- 95 Film, residue. Includes paint, resin, and chimney film or residue and other films and residues produced as a byproduct of an operation.
- 96 Rubbish, trash, waste.
- 97 Oily rags.
- 99 Multiple items first ignited. Use only where there are multiple fires started at approximately the same time on the same property and more than one item was initially involved.

Other Items First Ignited

| | |
|----|----------------------------|
| 00 | Item first ignited, other. |
| UU | Undetermined. |

D4 Type of Material First Ignited

- Type of Material First Ignited was known as Type of Material Ignited in NFIRS 4.1.

Definition

The composition of the material in the item first ignited by the heat source. The type of material ignited refers to the raw, common, or natural state of the material. The type of material ignited may be a gas, flammable liquid, chemical, plastic, wood, paper, fabric, or any number of other materials.

- This field is required only if the Item First Ignited code is “00” or a code less than “70.”

Purpose

This information assists in determining why fires start and spread and their severity. A study of this entry also helps assess the need for flammability and other material characteristic standards. This information is important to manufacturers for product improvement, as well as for fire prevention efforts.

Entry

Enter the code and description that best describes the type of material first ignited by the heat source.

- Be certain to enter the first material ignited by the heat source. For example, if an arsonist poured gasoline on a wooden floor, it was the gasoline and not the wood that was the material first ignited.
- If an insulated wire short circuits, it may be the wire’s insulation that was first ignited; or it may be the wood studs in the wall, thermal insulation nearby, or another material.

Example

A board game (45) made of cardboard (60) ignited (81) after being left too close to the living room fireplace (14), causing a fire:

| | | | | | | | |
|--------------------------------|--|---|---|-----------------------------|--------------------------------|--|---|
| D | Ignition | | | | | | |
| D1 | <table> <tr> <td>1</td> <td>4</td> <td>Living room fireplace</td> </tr> <tr> <td colspan="2">Area of fire origin</td> <td>☆</td> </tr> </table> | 1 | 4 | Living room fireplace | Area of fire origin | | ☆ |
| 1 | 4 | Living room fireplace | | | | | |
| Area of fire origin | | ☆ | | | | | |
| D2 | <table> <tr> <td>8</td> <td>1</td> <td>Fireplace flame, convection</td> </tr> <tr> <td colspan="2">Heat source</td> <td>☆</td> </tr> </table> | 8 | 1 | Fireplace flame, convection | Heat source | | ☆ |
| 8 | 1 | Fireplace flame, convection | | | | | |
| Heat source | | ☆ | | | | | |
| D3 | <table> <tr> <td>4</td> <td>5</td> <td>Toy or game</td> </tr> <tr> <td colspan="2">Item first ignited</td> <td>☆ 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin.</td> </tr> </table> | 4 | 5 | Toy or game | Item first ignited | | ☆ 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin. |
| 4 | 5 | Toy or game | | | | | |
| Item first ignited | | ☆ 1 <input type="checkbox"/> Check box if fire spread was confined to object of origin. | | | | | |
| D4 | <table> <tr> <td>6</td> <td>0</td> <td>Wood or paper, other</td> </tr> <tr> <td colspan="2">Type of material first ignited</td> <td>Required only if item first ignited code is 00 or <70</td> </tr> </table> | 6 | 0 | Wood or paper, other | Type of material first ignited | | Required only if item first ignited code is 00 or <70 |
| 6 | 0 | Wood or paper, other | | | | | |
| Type of material first ignited | | Required only if item first ignited code is 00 or <70 | | | | | |

- An alphabetized synonym list for the following Type of Material First Ignited codes is presented in Appendix B.

TYPE OF MATERIAL FIRST IGNITED CODES

Flammable Gas

- 11 Natural gas. Includes methane and marsh gas.
- 12 LP gas. Includes butane, butane and air mixtures, and propane gas.
- 13 Anesthetic gas.
- 14 Acetylene gas
- 15 Hydrogen.
- 10 Flammable gas, other. Includes benzene, benzol, carbon disulfide, carbon monoxide, ethylene, ethylene oxide, and vinyl chloride.

Flammable or Combustible Liquid

- 21 Ether, pentane-type flammable liquid. Includes all Class 1A flammable liquids.
- 22 JP-4 jet fuel and methyl-ethyl-ketone-type flammable liquid. Includes all Class 1B flammable liquids. Excludes gasoline (23).
- 23 Gasoline.
- 24 Turpentine, butyl-alcohol-type flammable liquid. Includes all Class 1C flammable liquids.
- 25 Kerosene; Nos. 1 and 2 fuel oil; diesel-type combustible liquid. Includes all Class II combustible liquids.
- 26 Cottonseed oil; Nos. 4, 5, and 6 fuel oil; creosote-oil-type combustible liquid. Includes all Class IIIA combustible liquids.
- 27 Cooking oil, transformer oil, lubricating oil. Includes all Class IIIB combustible liquids.
- 28 Ethanol.
- 20 Flammable or combustible liquid, other.

Volatile Solid or Chemical

- 31 Fat, grease, butter, margarine, lard, tallow.
- 32 Petroleum jelly and nonfood grease.
- 33 Polish, paraffin, wax.
- 34 Adhesive, resin, tar, glue, asphalt, pitch, soot.
- 35 Paint, varnish—applied.
- 36 Combustible metal. Includes magnesium, titanium, and zirconium.
- 37 Solid chemical. Includes explosives. Excludes liquid chemicals (division 2) and gaseous chemicals (division 1).
- 38 Radioactive material.
- 30 Volatile solid or chemical, other.

Plastics

- 41 Plastic, regardless of type. Excludes synthetic fibers, coated fabrics, plastic upholstery.

Natural Product

- 51 Rubber, tire rubber. Excludes synthetic rubbers (classify as plastics (41)).
- 52 Cork.
- 53 Leather.
- 54 Hay, straw.
- 55 Grain, natural fiber. Includes cotton, feathers, felt, barley, corn, coconut. Excludes fabrics and furniture batting (71).
- 56 Coal, coke, briquettes, peat. Includes briquettes of carbon black and charcoal.
- 57 Food, starch. Includes flour. Excludes fat or grease (31).

- 58 Tobacco.
- 50 Natural product, other. Includes manure.

Wood or Paper – Processed

- 61 Wood chips, sawdust, wood shavings.
- 62 Round timber. Includes round posts, poles, and piles.
- 63 Sawn wood. Includes all finished lumber and wood shingles.
- 64 Plywood.
- 65 Fiberboard, particleboard, and hardboard. Includes low-density pressed wood fiberboard products.
- 66 Wood pulp, wood fiber.
- 67 Paper. Includes cellulose, waxed paper, sensitized paper, and ground-up processed paper and newsprint used as thermal insulation.
- 68 Cardboard.
- 60 Wood or paper, processed, other.

Fabric, Textiles, Fur

- 71 Fabric, fiber, cotton, blends, rayon, wool, finished goods. Includes yarn and canvas. Excludes fur and silk (74).
- 74 Fur, silk, other fabric, finished goods. Excludes fabrics listed in Code 71.
- 75 Wig.
- 76 Human hair.
- 77 Plastic-coated fabric. Includes plastic upholstery fabric and other vinyl fabrics.
- 70 Fabric, textiles, fur, other.

Material Compounded With Oil

- 81 Linoleum.
- 82 Oilcloth.
- 86 Asphalt-treated material. Excludes by-products of combustion, soot, carbon, creosote (34).
- 80 Material compounded with oil, other.

Other Material

- 99 Multiple types of material.
- 00 Type of material first ignited, other.
- UU Undetermined.

SECTION E

This section deals with the causes and factors that contribute to a fire's ignition, which are essential pieces of information in guiding fire prevention efforts.

E1 Cause of Ignition ☆*Definition*

The general causal factor that resulted in a heat source igniting a combustible material. The cause could be the result of a deliberate act, mechanical failure, or act of nature.

Purpose

This information is used to determine if further information about the factors related to the fire's ignition will be collected later in the module. When combined with other data elements that make up the fire's "ignition chain," it provides critical information about the nature of the events and the circumstances that caused the fire. This is an important element in understanding the causes of fires.

Entry

Check or mark the box best describing why the heat source and the combustible material were able to combine to initiate the fire. If this is an exposure report, check or mark the top box in this block and skip to Section G.

- ☛ This is the best determination of the firefighter at the scene and may be changed later as a result of further investigation or other information.

Example

A house caught fire as a result of a lightning strike on the combustible roof (4):

| | | |
|-----------|---|---------------------|
| E1 | Cause of Ignition ☆ | |
| | <input type="checkbox"/> Check box if this is an exposure report. | ➔ Skip to Section G |
| 1 | <input type="checkbox"/> Intentional | |
| 2 | <input type="checkbox"/> Unintentional | |
| 3 | <input type="checkbox"/> Failure of equipment or heat source | |
| 4 | <input checked="" type="checkbox"/> Act of nature | |
| 5 | <input type="checkbox"/> Cause under investigation | |
| U | <input type="checkbox"/> Cause undetermined after investigation | |

CAUSE OF IGNITION CODES

- | | |
|---|---|
| 1 | Intentional. Includes deliberate misuse of heat source or a fire of an incendiary nature. |
| 2 | Unintentional. Includes fires caused by careless, reckless, or accidental acts. |
| 3 | Failure of equipment or heat source. Includes mechanical problems. |
| 4 | Act of nature. Includes causes related to weather, earthquakes, floods, and animals. |
| 5 | Cause under investigation. |
| U | Cause undetermined after investigation. |

E2 Factors Contributing to Ignition ☆

- ☛ Factors Contributing to Ignition was known as Ignition Factors in NFIRS 4.1.

Definition

The contributing factors that allowed the heat source and combustible material to combine to ignite the fire.

Purpose

Combined with Cause of Ignition and Human Factors Contribution to Ignition, this information explains how and why the fire started. It can also indicate whether a fire is potentially preventable through public education, code enforcement, or other strategies.

Entry

Enter the two-digit codes and descriptions for up to two contributing factors. The primary factor should be entered first. If there were no factors contributing to ignition, check or mark the None box.

The ☆ denotes a required field.

Example

A vehicle caught fire immediately after colliding with a garbage truck; enter “51” Collision:

| | |
|---|-----------|
| E₂ Factors Contributing to Ignition ☆ <input type="checkbox"/> None | |
| 5 1 | Collision |
| Factor contributing to ignition (1) | |
| | |
| Factor contributing to ignition (2) | |

FACTORS CONTRIBUTING TO IGNITION CODES**Misuse of Material or Product**

- 11 Abandoned or discarded materials or products. Includes discarded cigarettes, cigars, tobacco embers, hot ashes, or other burning matter. Excludes outside fires left unattended.
- 12 Heat source too close to combustibles.
- 13 Cutting, welding too close to combustibles.
- 14 Flammable liquid or gas spilled. Excludes improper fueling technique (15) and release due to improper container (18).
- 15 Improper fueling technique. Includes overfueling, failure to ground. Excludes fuel spills (14) and using the improper fuel (27).
- 16 Flammable liquid used to kindle fire.
- 17 Washing part or material, painting with flammable liquid.
- 18 Improper container or storage procedure. Includes gasoline in unimproved containers, gas containers stored at excessive temperature, and storage conditions that lead to spontaneous ignition.
- 19 Playing with heat source. Includes playing with matches, candles, and lighters and bringing combustibles into a heat source.
- 10 Misuse of material or product, other.

Mechanical Failure, Malfunction

- 21 Automatic control failure.
- 22 Manual control failure.
- 23 Leak or break. Includes leaks or breaks of containers or pipes. Excludes operational deficiencies and spill mishaps.
- 25 Worn out.
- 26 Backfire. Excludes fires originating as a result of hot catalytic converters (41).
- 27 Improper fuel used. Includes the use of gasoline in a kerosene heater and the like.
- 20 Mechanical failure, malfunction, other.

Electrical Failure, Malfunction

- 31 Water-caused short-circuit arc.
- 32 Short-circuit arc from mechanical damage.
- 33 Short-circuit arc from defective, worn insulation.
- 34 Unspecified short-circuit arc.
- 35 Arc from faulty contact, broken conductor. Includes broken power lines and loose connections.
- 36 Arc, spark from operating equipment, switch, or electric fence.
- 37 Fluorescent light ballast.
- 30 Electrical failure, malfunction, other.

Design, Manufacturing, Installation Deficiency

- 41 Design deficiency.
- 42 Construction deficiency.
- 43 Installation deficiency.
- 44 Manufacturing deficiency.
- 40 Design, manufacturing, installation deficiency, other.

Operational Deficiency

- 51 Collision, knock down, run over, turn over. Includes automobiles and other vehicles.
- 52 Accidentally turned on, not turned off.
- 53 Equipment unattended.
- 54 Equipment overloaded.
- 55 Failure to clean. Includes lint and grease buildups in chimneys, stove pipes.
- 56 Improper startup/shutdown procedure.
- 57 Equipment not used for purpose intended. Excludes overloaded equipment (54).
- 58 Equipment not operated properly.
- 50 Operational deficiency, other.

Natural Condition

- 61 High wind.
- 62 Storm.
- 63 High water, including floods.
- 64 Earthquake.
- 65 Volcanic action.
- 66 Animal.
- 60 Natural condition, other.

Fire Spread or Control

- 71 Exposure fire.
- 72 Rekindle.
- 73 Outside/Open fire for debris or waste disposal.
- 74 Outside/Open fire for warming or cooking.
- 75 Agriculture or land management burns. Includes prescribed burns.
- 70 Fire spread or control, other.

Other Factors Contributing to Ignition

- 00 Factors contributing to ignition, other.
- NN None.
- UU Undetermined.

E3 Human Factors Contributing to Ignition ☆*Definition*

The human condition or situation that allowed the heat source and combustible material to combine to ignite the fire.

Purpose


Combined with Cause of Ignition and Factors Contributing to Ignition, this element explains how and why the fire started. It can also indicate whether a fire is potentially preventable through public education, code enforcement, or other strategies.

Entry

Check or mark all applicable boxes. If age was a factor, enter the estimated age of the person involved in the space provided. If known, the gender of the person involved should also be checked or marked. If there were no known human factors contributing to ignition, check or mark the None box.

Example

An elderly man (1) of 88 years who was physically disabled (5) and home alone (3) fell asleep (1) in his chair while smoking. The dropped cigarette contacted combustible materials next to his chair. The respondent determined that even had the occupant awakened, he would have been unable to extinguish the fire due to his age (7):

| E3 Human Factors  Contributing to Ignition | |
|--|--|
| Check all applicable boxes <input type="checkbox"/> None | |
| 1 | <input checked="" type="checkbox"/> Asleep |
| 2 | <input type="checkbox"/> Possibly impaired by alcohol or drugs |
| 3 | <input checked="" type="checkbox"/> Unattended person |
| 4 | <input type="checkbox"/> Possibly mentally disabled |
| 5 | <input checked="" type="checkbox"/> Physically disabled |
| 6 | <input type="checkbox"/> Multiple persons involved |
| <hr/> | |
| 7 | <input checked="" type="checkbox"/> Age was a factor |
| Estimated age of person involved <input type="text" value="8"/> <input type="text" value="8"/> | |
| 1 | <input checked="" type="checkbox"/> Male |
| 2 | <input type="checkbox"/> Female |

HUMAN FACTORS CONTRIBUTING TO IGNITION CODES

- | | |
|---|---|
| 1 | Asleep. Includes fires that result from a person falling asleep while smoking. |
| 2 | Possibly impaired by alcohol or drugs. Includes people who fall asleep or act recklessly or carelessly as a result of drugs or alcohol. Excludes people who simply fall asleep (1). |
| 3 | Unattended or unsupervised person. Includes “latch key” situations whether the person involved is young or old and situations where the person involved lacked supervision or care. |
| 4 | Possibly mentally disabled. Excludes impairments of a temporary nature such as those caused by drugs or alcohol (2). |
| 5 | Physically disabled. |
| 6 | Multiple persons involved. Includes gang activity. |
| 7 | Age was a factor. |
| N | None. |

AGE FACTOR GENDER CODES

- | | |
|---|---------|
| 1 | Male. |
| 2 | Female. |

SECTION F

This section identifies the equipment where the heat of ignition originated, the power source that actually operated the equipment, and whether the equipment is normally stationary or is designed to move from location to location.

- ☛ The three blocks in this section—Equipment Involved in Ignition, Equipment Power Source, and Equipment Portability—were collectively known as Equipment Involved in Ignition in NFIRS 4.1.

F1 Equipment Involved in Ignition

Equipment Type

Definition

The piece of equipment that provided the principal heat source to cause ignition.

Purpose

Analysis of the equipment involved in ignition is useful for improving product safety and preventive maintenance. It is just as important to know the kind of equipment that was used improperly as it is to know the kind of equipment that malfunctioned. Misuse can be the direct result of the way the equipment is designed and constructed. When involved in ignition, equipment information provides an important part of the causal data. Equipment involved in ignition can be compared to other causal data to determine if the equipment was (or was not) operating properly.

Entry

Enter the three-digit code and description that best describes the equipment involved in ignition. If no equipment was involved, check or mark the None box and skip to Section G.

- ☛ If a vehicle was involved in ignition, use Section H.

Example

A fire started by a short circuit in a dryer (811):

| F1 Equipment Involved in Ignition | |
|-----------------------------------|--|
| <input type="checkbox"/> None | ⇒ If equipment was not involved, skip to Section G |
| 8 1 1 | Clothes dryer |
| Equipment Involved | |
| Brand | _____ |
| Model | _____ |
| Serial # | _____ |
| Year | ____ ____ ____ ____ |

- An alphabetized synonym list for the following Equipment Involved in Ignition codes is presented in Appendix B.

EQUIPMENT INVOLVED IN IGNITION CODES

Heating, Ventilation, and Air Conditioning

- 111 Air conditioner.
- 112 Heat pump.
- 113 Fan.
- 114 Humidifier, non-heat producing. Excludes heaters with built-in humidifiers (131, 132).
- 115 Ionizer.
- 116 Dehumidifier, portable.
- 117 Evaporative cooler, cooling tower.
- 121 Fireplace, masonry.
- 122 Fireplace, factory-built.
- 123 Fireplace, insert/stove.
- 124 Stove, heating.
- 125 Chimney connector, vent connector.
- 126 Chimney: brick, stone, masonry.
- 127 Chimney: metal. Includes stovepipes and flues.
- 120 Fireplace, chimney, other.
- 131 Furnace, local heating unit, built-in. Includes built-in humidifiers. Excludes process furnaces, kilns (353).
- 132 Furnace, central heating unit. Includes built-in humidifiers. Excludes process furnaces, kilns. (353)
- 133 Boiler (power, process, heating).
- 141 Heater. Includes floor furnaces, wall heaters, and baseboard heaters. Excludes catalytic heaters (142), oil-filled heaters (143), hot water heaters (152).
- 142 Heater, catalytic.
- 143 Heater, oil-filled. Excludes kerosene heaters (141).
- 144 Heat lamp.
- 145 Heat tape.
- 151 Water heater. Includes sink-mounted instant hot water heaters and waterbed heaters.
- 152 Steam line, heat pipe, hot air duct. Includes radiators and hot water baseboard heaters.
- 100 Heating, ventilation, and air conditioning, other.

Electrical Distribution, Lighting, and Power Transfer

- 211 Electrical power (utility) line. Excludes wires from the utility pole to the structure.
- 212 Electrical service supply wires; wires from utility pole to meter box.
- 213 Electric meter, meter box.
- 214 Electrical wiring from meter box to circuit breaker board, fuse box, or panel board.
- 215 Panel board (fuse); switchboard, circuit breaker board with or without ground-fault interrupter
- 216 Electrical branch circuit. Includes armored (metallic) cable, nonmetallic sheathing, or wire in conduit.
- 217 Outlet, receptacle. Includes wall-type receptacles, electric dryer and stove receptacles.
- 218 Wall-type switch. Includes light switches.
- 219 Ground-fault interrupter (GFI), portable, plug-in.
- 210 Electrical wiring, other.
- 221 Transformer, distribution-type.
- 222 Overcurrent, disconnect equipment. Excludes panel boards.
- 223 Transformer, low-voltage (not more than 50 volts).
- 224 Generator.
- 225 Inverter.
- 226 Uninterrupted power supply (UPS).

| | |
|-----|---|
| 227 | Surge protector. |
| 228 | Battery charger, rectifier. |
| 229 | Battery. Includes all battery types. |
| 231 | Lamp: tabletop, floor, desk. Excludes halogen fixtures (235) and light bulbs (238). |
| 232 | Lantern, flashlight. |
| 233 | Incandescent lighting fixture. |
| 234 | Fluorescent lighting fixture, ballast. |
| 235 | Halogen lighting fixture or lamp. |
| 236 | Sodium, mercury vapor lighting fixture or lamp. |
| 237 | Portable or movable work light, trouble light. |
| 238 | Light bulb. |
| 230 | Lamp, lighting, other. |
| 241 | Night light. |
| 242 | Decorative lights, line voltage. Includes holiday lighting, Christmas lights. |
| 243 | Decorative or landscape lighting, low voltage. |
| 244 | Sign. Includes neon signs. |
| 251 | Fence, electric. |
| 252 | Traffic control device |
| 253 | Lightning rod, arrester/grounding device. |
| 261 | Power cord, plug; detachable from appliance. |
| 262 | Power cord, plug; permanently attached to appliance. |
| 263 | Extension cord. |
| 260 | Cord, plug, other. |
| 200 | Electrical distribution, lighting, and power transfer, other. |

Shop Tools and Industrial Equipment

| | |
|-----|---|
| 311 | Power saw. |
| 312 | Power lathe. |
| 313 | Power shaper, router, jointer, planer. |
| 314 | Power cutting tool. |
| 315 | Power drill, screwdriver. |
| 316 | Power sander, grinder, buffer, polisher. |
| 317 | Power hammer, jackhammer. |
| 318 | Power nail gun, stud driver, stapler. |
| 310 | Power tools, other. |
| 321 | Paint dipper. |
| 322 | Paint flow coating machine. |
| 323 | Paint mixing machine. |
| 324 | Paint sprayer. |
| 325 | Coating machine. Includes asphalt-saturating and rubber-spreading machines. |
| 320 | Painting tools, other. |
| 331 | Welding torch. Excludes cutting torches (332). |
| 332 | Cutting torch. Excludes welding torches (331). |
| 333 | Burners. Includes Bunsen burners, plumber furnaces, and blowtorches. Excludes weed burners (523). |
| 334 | Soldering equipment. |
| 341 | Air compressor. |
| 342 | Gas compressor. |
| 343 | Atomizing equipment. Excludes paint spraying equipment (324). |
| 344 | Pump. Excludes pumps integrated with other types of equipment. |
| 345 | Wet/Dry vacuum (shop vacuum). |
| 346 | Hoist, lift, crane. |
| 347 | Powered jacking equipment. Includes hydraulic rescue tools. |
| 348 | Drilling machinery or equipment. Includes water or gas drilling equipment. |
| 340 | Hydraulic equipment, other. |

| | |
|-----|--|
| 351 | Heat-treating equipment. |
| 352 | Incinerator. |
| 353 | Industrial furnace, oven, kiln. Excludes ovens for cooking (646). |
| 354 | Tarpot, tar kettle. |
| 355 | Casting, molding, forging equipment. |
| 356 | Distilling equipment. |
| 357 | Digester, reactor. |
| 358 | Extractor, waste recovery machine. Includes solvent extractors such as used in dry-cleaning operations and garnetting equipment. |
| 361 | Conveyor. Excludes agricultural conveyors (513). |
| 362 | Power transfer equipment: ropes, cables, blocks, belts. |
| 363 | Power takeoff. |
| 364 | Powered valves. |
| 365 | Bearing or brake. |
| 371 | Picking, carding, weaving machine. Includes cotton gins. |
| 372 | Testing equipment. |
| 373 | Gas regulator. Includes propane, butane, LP, or natural gas regulators and flexible hose connectors to gas appliances. |
| 374 | Motor, separate. Includes bench motors. Excludes internal combustion motors (375). |
| 375 | Internal combustion engine (nonvehicular). |
| 376 | Printing press. |
| 377 | Car washing equipment. |
| 300 | Shop tools and industrial equipment, other. |

Commercial and Medical Equipment

| | |
|-----|--|
| 411 | Dental, medical, or other powered bed or chair. Includes powered wheelchairs. |
| 412 | Dental equipment, other. |
| 413 | Dialysis equipment. |
| 414 | Medical imaging equipment. Includes MRI, CAT scan, and ultrasound. |
| 415 | Medical monitoring equipment. |
| 416 | Oxygen administration equipment. |
| 417 | Radiological equipment, x-ray, radiation therapy. |
| 418 | Sterilizer, medical. |
| 419 | Therapeutic equipment. |
| 410 | Medical equipment, other. |
| 421 | Transmitter. |
| 422 | Telephone switching gear, including PBX. |
| 423 | TV monitor array. Includes control panels with multiple TV monitors and security monitoring stations. Excludes single TV monitor configurations (753). |
| 424 | Studio-type TV camera. Includes professional studio television cameras. Excludes home camcorders and video equipment (756). |
| 425 | Studio-type sound recording/modulating equipment. |
| 426 | Radar equipment. |
| 431 | Amusement ride equipment. |
| 432 | Ski lift. |
| 433 | Elevator or lift. |
| 434 | Escalator. |
| 441 | Microfilm, microfiche viewing equipment. |
| 442 | Photo processing equipment. Includes microfilm processing equipment. |
| 443 | Vending machine. |
| 444 | Nonvideo arcade game. Includes pinball machines and the like. Excludes electronic video games (755). |
| 445 | Water fountain, water cooler. |
| 446 | Telescope. Includes radio telescopes. |
| 451 | Electron microscope. |

- 450 Laboratory equipment, other.
400 Commercial and medical equipment, other.

Garden Tools and Agricultural Equipment

- 511 Combine, threshing machine.
512 Hay processing equipment.
513 Farm elevator or conveyor.
514 Silo loader, unloader, screw/sweep auger.
515 Feed grinder, mixer, blender.
516 Milking machine.
517 Pasteurizer. Includes milk pasteurizers.
518 Cream separator.
521 Sprayer, farm or garden.
522 Chain saw.
523 Weed burner.
524 Lawn mower.
525 Lawn, landscape trimmer, edger.
531 Lawn vacuum.
532 Leaf blower.
533 Mulcher, grinder, chipper. Includes leaf mulchers.
534 Snow blower, thrower.
535 Log splitter.
536 Post hole auger.
537 Post driver, pile driver.
538 Tiller, cultivator.
500 Garden tools and agricultural equipment, other.

Kitchen and Cooking Equipment

- 611 Blender, juicer, food processor, mixer.
612 Coffee grinder.
621 Can opener.
622 Knife.
623 Knife sharpener.
631 Coffee maker or teapot.
632 Food warmer, hot plate.
633 Kettle.
634 Popcorn popper.
635 Pressure cooker or canner.
636 Slow cooker.
637 Toaster, toaster oven, countertop broiler.
638 Waffle iron, griddle.
639 Wok, frying pan, skillet.
641 Bread-making machine.
642 Deep fryer.
643 Grill, hibachi, barbecue.
644 Microwave oven.
645 Oven, rotisserie.
646 Range or kitchen stove with or without oven or cooking surface. Includes counter-mounted stoves.
647 Steam table, warming drawer/table.
651 Dishwasher.
652 Freezer when separate from refrigerator.
653 Garbage disposer.
654 Grease hood/duct exhaust fan.

- 655 Ice maker (separate from refrigerator).
- 656 Refrigerator, refrigerator/freezer.
- 600 Kitchen and cooking equipment, other.

Electronic and Other Electrical Equipment

- 711 Computer. Includes devices such as hard drives and modems installed inside the computer casing. Excludes external storage devices (712).
- 712 Computer storage device, external. Includes CD-ROM devices, tape drives, and disk drives. Excludes such devices when they are installed within a computer (711).
- 713 Computer modem, external. Includes digital, ISDN modems, cable modems, and modem racks. Excludes modems installed within a computer (711).
- 714 Computer monitor. Includes LCD or flat-screen monitors.
- 715 Computer printer. Includes multifunctional devices such as copier, fax, and scanner.
- 716 Computer projection device, LCD panel, projector.
- 710 Computer device, other.
- 721 Adding machine, calculator.
- 722 Telephone or answering machine.
- 723 Cash register.
- 724 Copier. Includes large standalone copiers. Excludes small copiers and multifunctional devices (715).
- 725 Fax machine.
- 726 Paper shredder.
- 727 Postage, shipping meter equipment.
- 728 Typewriter.
- 720 Office equipment, other.
- 731 Guitar.
- 732 Piano, organ. Includes player pianos. Excludes synthesizers and musical keyboards (733).
- 733 Musical synthesizer or keyboard. Excludes pianos, organs (732).
- 730 Musical instrument, other.
- 741 CD player (audio). Excludes computer CD, DVD players (712).
- 742 Laser disk player. Includes DVD players and recorders.
- 743 Radio. Excludes two-way radios (744).
- 744 Radio, two-way.
- 745 Record player, phonograph, turntable.
- 747 Speakers, audio; separate components.
- 748 Stereo equipment. Includes receivers, amplifiers, equalizers. Excludes speakers (747).
- 749 Tape recorder or player.
- 740 Sound recording or receiving equipment, other.
- 751 Cable converter box.
- 752 Projector: film, slide, overhead.
- 753 Television.
- 754 VCR or VCR-TV combination.
- 755 Video game, electronic.
- 756 Camcorder, video camera.
- 757 Photographic camera and equipment. Includes digital cameras.
- 750 Video equipment, other.
- 700 Electronic equipment, other.

Personal and Household Equipment

- 811 Clothes dryer.
- 812 Trash compactor.
- 813 Washer/Dryer combination (within one frame).
- 814 Washing machine, clothes.
- 821 Hot tub, whirlpool, spa.
- 822 Swimming pool equipment.
- 830 Floor care equipment, other.

| | |
|-----|--|
| 831 | Broom, electric. |
| 832 | Carpet cleaning equipment. Includes rug shampoos. |
| 833 | Floor buffer, waxer, cleaner. |
| 834 | Vacuum cleaner. |
| 841 | Comb, hair brush. |
| 842 | Curling iron. |
| 843 | Electrolysis equipment. |
| 844 | Hair curler warmer. |
| 845 | Hair dryer. |
| 846 | Makeup mirror, lighted. |
| 847 | Razor, shaver (electric). |
| 848 | Suntan equipment, sunlamp. |
| 849 | Toothbrush (electric). |
| 850 | Portable appliance designed to produce heat, other. |
| 851 | Baby bottle warmer. |
| 852 | Blanket, electric. |
| 853 | Heating pad. |
| 854 | Clothes steamer. |
| 855 | Clothes iron. |
| 861 | Automatic door opener. Excludes garage door openers (863). |
| 862 | Burglar alarm. |
| 863 | Garage door opener. |
| 864 | Gas detector. |
| 865 | Intercom. |
| 866 | Smoke or heat detector, fire alarm. Includes control equipment. |
| 868 | Thermostat. |
| 871 | Ashtray. |
| 872 | Charcoal lighter, utility lighter. |
| 873 | Cigarette lighter, pipe lighter. |
| 874 | Fire-extinguishing equipment. Includes electronic controls. |
| 875 | Insect trap. Includes bug zappers. |
| 876 | Timer. |
| 877 | Novelty Lighter. |
| 881 | Model vehicles. Includes model airplanes, boats, rockets, and powered vehicles used for hobby and recreational purposes. |
| 882 | Toy, powered. |
| 883 | Woodburning kit. |
| 891 | Clock. |
| 892 | Gun. |
| 893 | Jewelry-cleaning machine. |
| 894 | Scissors. |
| 895 | Sewing machine. |
| 896 | Shoe polisher. |
| 897 | Sterilizer, non-medical. |
| 800 | Personal and household equipment, other. |

Other Equipment Involved in Ignition

| | |
|-----|--|
| 000 | Equipment involved in ignition, other. |
| NNN | None. |
| UUU | Undetermined |

Equipment Brand, Model, Serial Number, and Year

Definition

The information in this block precisely identifies the equipment that was involved in ignition. As possible, the following information should be recorded:

Brand: The name by which the equipment is most commonly known.

Model: The model name or number assigned to the equipment by the manufacturer. If there is no specific model name or number, use the common physical description of the equipment.

Serial Number: The manufacturer's serial number that is generally stamped on an identification plate on the equipment.

Year: The year that the equipment was built.

Purpose

Provides detailed information identifying specific types of equipment that failed or contributed to the fire. This information can be used to determine whether particular brands or models cause problems more frequently than others; and to identify equipment for product recalls or in the development of new product safety codes.

Entry

Enter the brand, model, serial number, and year of the equipment involved in ignition. If no equipment was involved in ignition, check or mark the None box and go to Section G.

Example

The clothes dryer was a 1985 Maytag Model XRS-130, serial number 34-2345:

| F ₁ Equipment Involved in ignition | |
|---|--|
| <input type="checkbox"/> None | ➔ If equipment was not involved, skip to Section G |
| 8 1 1 | Clothes dryer |
| Equipment Involved | |
| Brand | Maytag |
| Model | XRS-130 |
| Serial # | 34-2345 |
| Year | 1 9 8 5 |

F₂ Equipment Power Source

Definition

The type of power used by the equipment involved in ignition of the fire. This does not include what actually produces the power.

Purpose

Combined with other factors in the ignition sequence, this element helps identify fire causes for analysis. Power source data are useful for determining compliance with standards, analyzing the effectiveness of codes and regulations, and targeting prevention programs.

Entry

Enter the two-digit code and description that best describes the power source of the equipment involved in ignition.

Example

| | |
|------------------------|-------------------------------|
| F₂ | Equipment Power Source |
| 1 1 | 240V Electric |
| Equipment Power Source | |

Enter electrical line voltage (11) to describe the power source of an electric range:

EQUIPMENT POWER SOURCE CODES

Electrical

- 11 Electrical line voltage (50 volts or greater). Includes typical house current.
- 12 Batteries and low voltage (less than 50 volts).
- 10 Electrical, other.

Gas Fuels

- 21 Natural gas or other lighter-than-air gas. Includes hydrogen.
- 22 LP gas or other heavier-than-air gas. Includes propane and butane gas.
- 20 Gas fuels, other.

Liquid Fuels

- 31 Gasoline.
- 32 Alcohol.
- 33 Kerosene, diesel fuel, No. 1 and 2 fuel oil. Includes industrial furnace oils and bunker oils.
- 34 No. 4, 5, and 6 fuel oils.
- 30 Liquid fuels, other.

Solid Fuels

- 41 Wood, paper.
- 42 Coal, charcoal.
- 43 Chemicals.
- 40 Solid fuels, other.

Other Power Sources

| | |
|----|-------------------------------|
| 51 | Compressed air. |
| 52 | Steam. |
| 53 | Water. |
| 54 | Wind. |
| 55 | Solar. |
| 56 | Geothermal. |
| 57 | Nuclear. |
| 58 | Fluid/Hydraulic power source. |
| 00 | Power source, other. |
| UU | Undetermined. |

F3 Equipment Portability*Definition*

Describes the equipment involved in ignition as either portable or stationary.

Purpose

This information is useful for better defining the type of equipment involved in ignition, improving product safety, and highlighting possible preventive maintenance.

Entry

Check or mark the box best indicating the portability of the equipment involved in ignition of the fire.

- ☛ Portable equipment normally can be moved by one or two persons, is designed to be used in multiple locations, and requires no tools to install.

Example

A fire involves a tripod-mounted halogen quartz light used at a construction site:

F3 Equipment Portability

1 **Portable**

2 **Stationary**

Portable equipment normally can be moved by one or two persons, is designed to be used in multiple locations, and requires no tools to install.

EQUIPMENT PORTABILITY CODES

- 1 Portable. Includes equipment that can be carried or moved by one or two persons and designed to be used in a variety of locations. Tools are not needed to install or operate the equipment.
- 2 Stationary. Includes equipment that is mounted at a fixed site or location or designed to be operated in one location.

SECTION G

The data elements in this section help provide a uniform way to identify factors contributing to the growth and spread of the fire. This is useful to report incident information that has not been captured by other data elements and that may have a bearing on the incident.

G Fire Suppression Factors

Definition

Factors that contributed to the growth, spread, or suppression of the fire. This is used to report incident information that directly impacted the ignition, spread of fire or smoke, incident complexity, or presence of hazardous conditions.

Purpose

Fire suppression factors provide essential guides for planning strategic and tactical procedures for future incidents, as well as for identifying fire training and equipment needs.

Entry

Enter the three-digit code and description for up to three fire suppression factors or conditions that constituted a significant fire suppression problem or affected how the fire was managed. If no conditions or factors affected fire suppression efforts, check or mark the None box.

Example

The first-due engine company was delayed due to “trouble finding location” (436) after incorrect information was given by the dispatcher.

Due to the instability of the “wood truss construction” (185) roof, firefighters halted their interior attack and went into a defensive fire suppression mode:

| G Fire Suppression Factors | | <input type="checkbox"/> None |
|-----------------------------|--------------------------|-------------------------------|
| Enter up to three codes. | | |
| 4 3 6 | Trouble finding location | |
| Fire suppression factor (1) | | |
| 1 8 5 | Wood truss construction | |
| Fire suppression factor (2) | | |
| | | |
| Fire suppression factor (3) | | |

FIRE SUPPRESSION FACTORS CODES**Building Construction or Design**

| | |
|-----|---|
| 112 | Roof collapse. |
| 113 | Roof assembly combustible. |
| 115 | Solar panels. |
| 121 | Ceiling collapse. |
| 125 | Holes or openings in walls or ceilings. |
| 131 | Wall collapse. |
| 132 | Difficult to ventilate. |
| 134 | Combustible interior finish. |
| 137 | Balloon construction. |
| 138 | Internal arrangement of partitions. |
| 139 | Internal arrangement of stock or contents. |
| 141 | Floor collapse. |
| 151 | Lack of fire barrier walls or doors. |
| 153 | Transoms. |
| 161 | Attic undivided. |
| 166 | Insulation combustible. |
| 173 | Stairwell not enclosed. |
| 174 | Elevator shaft. |
| 175 | Dumbwaiter. |
| 176 | Duct, vertical. |
| 177 | Chute: rubbish, garbage, laundry. |
| 181 | Supports unprotected. |
| 182 | Composite plywood I-beam construction. |
| 183 | Composite roof/floor sheathing construction. |
| 185 | Wood truss construction. |
| 186 | Metal truss construction. |
| 187 | Fixed burglar protection assemblies (bars, grills on windows or doors). |
| 188 | Quick release failure of bars on windows or doors. |
| 192 | Previously damaged by fire. |
| 100 | Building construction or design, other. |

Act or Omission

| | |
|-----|---|
| 213 | Doors left open or outside door unsecured. |
| 214 | Fire doors blocked or did not close properly. |
| 218 | Violation of applicable or locally adopted fire, building, or life safety code. |
| 222 | Illegal and clandestine drug operation. |
| 232 | Intoxication, drugs or alcohol. |
| 253 | Riot or civil disturbance. Includes hostile acts. |
| 254 | Person(s) interfered with operations. |
| 283 | Accelerant used. |
| 200 | Act or omission, other. |

On-Site Materials

| | |
|-----|--|
| 311 | Aisles blocked or improper width. |
| 312 | Significant and unusual fuel load from structure components. |
| 313 | Significant and unusual fuel load from contents of structure. |
| 314 | Significant and unusual fuel load outside from natural environment conditions. |
| 315 | Significant and unusual fuel load from man-made condition. |
| 316 | Storage, improper. |
| 321 | Radiological hazard onsite. |

| | |
|-----|--|
| 322 | Biological hazard onsite. |
| 323 | Cryogenic hazard onsite. |
| 324 | Hazardous chemical, corrosive material, or oxidizer. |
| 325 | Flammable/Combustible liquid hazard. |
| 327 | Explosives hazard present. |
| 331 | Decorations. Includes crepe paper, garland. |
| 341 | Natural or other lighter-than-air gas present. |
| 342 | Liquefied petroleum (LPG) or other heavier-than-air gas present. |
| 361 | Combustible storage >12 feet to top of storage. Excludes rack storage (362). |
| 362 | High rack storage. |
| 300 | On-site materials, other. |

Delays

| | |
|-----|--|
| 411 | Delayed detection of fire. |
| 412 | Delayed reporting of fire. Includes occupants investigating the source of the alarm or smoke before calling the fire department. |
| 413 | Alarm system malfunction. |
| 414 | Alarm system shut off for valid reason. Includes systems being maintained or repaired. |
| 415 | Alarm system inappropriately shut off. |
| 421 | Unable to contact fire department. Includes use of wrong phone number and cellular mobile phone problems. |
| 424 | Information incomplete or incorrect. |
| 425 | Communications problem; system failure of local, public, or other telephone network. |
| 431 | Blocked or obstructed roadway. Includes blockages due to construction or illegal parking. |
| 434 | Poor or no access for fire department apparatus. |
| 435 | Traffic delay. |
| 436 | Trouble finding location. |
| 437 | Size, height, or other building characteristic delayed access to fire. |
| 438 | Power lines down/arcings. |
| 443 | Poor access for firefighters. |
| 444 | Secured area. |
| 445 | Guard dogs. |
| 446 | Aggressive animals. Excludes guard dogs (445). |
| 447 | Suppression delayed due to evaluation of hazardous or unknown materials at incident scene. |
| 448 | Locked or jammed doors. |
| 451 | Apparatus failure before arrival at incident. |
| 452 | Hydrants inoperative. |
| 461 | Airspace restriction. |
| 462 | Military activity. |
| 481 | Closest apparatus unavailable. |
| 400 | Delays, other. |

Protective Equipment

| | |
|-----|---|
| 510 | Automatic fire suppression system problem. Includes system failures, shutoffs, inadequate protection to cover hazard, and the like. |
| 520 | Automatic sprinkler or standpipe/fire department connection problem. Includes damage, blockage, failure, improper installation. |
| 531 | Water supply inadequate: private. |
| 532 | Water supply inadequate: public. |
| 543 | Electrical power outage. |
| 561 | Failure of rated fire protection assembly. Includes fire doors, fire walls, floor/ceiling assemblies, and the like. |
| 562 | Protective equipment negated illegally or irresponsibly. Includes fire doors, dampers, sprinklers, and the like. |
| 500 | Protective equipment, other. |

Egress/Exit Problems

| | |
|-----|---|
| 611 | Occupancy load above legal limit. |
| 612 | Evacuation activity impeded fire department access. |
| 613 | Window type impeded egress. Includes windows too small. |
| 614 | Windowless wall. |
| 621 | Young occupants. |
| 622 | Elderly occupants |
| 623 | Physically disabled occupants. |
| 624 | Mentally disabled occupants. |
| 625 | Physically restrained/confined occupants. |
| 626 | Medically disabled occupants. |
| 641 | Special event. |
| 642 | Public gathering. |
| 600 | Egress/exit problems, other. |

Natural Conditions

| | |
|-----|---|
| 711 | Drought or low fuel moisture. |
| 712 | Humidity, low. |
| 713 | Humidity, high. |
| 714 | Temperature, low. |
| 715 | Temperature, high. |
| 721 | Fog. |
| 722 | Flooding. |
| 723 | Ice. |
| 724 | Rain. |
| 725 | Snow. |
| 732 | Wind. Includes hurricanes and tornados. |
| 741 | Earthquake. |
| 760 | Unusual vegetation fuel loading. |
| 771 | Threatened or endangered species. |
| 772 | Timber sale activity. |
| 773 | Fire restriction. |
| 774 | Historic disturbance (past fire history can dictate fire behavior). |
| 775 | Urban-wildland interface area. |
| 700 | Natural conditions, other. |

Other Fire Suppression Factors

| | |
|-----|----------------------------------|
| 000 | Fire suppression factors, other. |
| NNN | None. |

SECTION H

Mobile property is property that is designed to be movable in relation to fixed property whether or not it still is. Mobile property is always located on a specific property and, when mobile property is involved, the Property Use (Basic Module, Section J) should always be completed.

H1 Mobile Property Involved*Definition*

This element is used to determine how mobile property relates to a fire (i.e., if involved in the ignition and whether or not it burned).

Purpose

The role that mobile property played in the incident can reveal problems and lead to appropriate corrective actions.

Entry

Check or mark the box best describing the role that mobile property had in the fire. If no mobile property was involved in ignition, check or mark the None box.

- ☛ If “1” is checked or marked, it is not necessary to complete Block H2. If “2” or “3” is checked or marked, proceed to Block H2.

Example

A fire started under the hood of an automobile (3):

| | | |
|----------------------|---|-------------------------------|
| H₁ | Mobile Property Involved | <input type="checkbox"/> None |
| 1 | <input type="checkbox"/> Not involved in ignition, but burned | ➔ |
| 2 | <input type="checkbox"/> Involved in ignition, but did not burn | |
| 3 | <input checked="" type="checkbox"/> Involved in ignition and burned | |

MOBILE PROPERTY INVOLVED CODES

- | | |
|---|---|
| 1 | Mobile property not involved in ignition, but burned in fire following ignition. |
| 2 | Mobile property was involved in ignition, but did not burn. Includes fires started by exhaust systems of automobiles and sparks thrown off by trains. |
| 3 | Mobile property involved in ignition, and it burned. |
| N | None. |

H₂ Mobile Property: Type, Make, Model, Year, License Number, State, VIN

Definition

The information in this block precisely identifies the mobile property involved in a fire’s ignition. As possible, the following information should be recorded:

Type: Property that is designed and constructed to be mobile, movable under its own power, or towed, such as an airplane, automobile, boat, cargo trailer, farm vehicle, motorcycle, or recreational vehicle.

Make: The name of the manufacturer of the mobile property.

Model: The manufacturer’s model name. If one does not exist, use the physical description of the property that is commonly used to describe it, such as “three-bedroom” (mobile home) or “four-door” (sedan).

Year: The year the mobile property was manufactured.

License Plate Number (if any): The number on the license plates affixed to the vehicle; plates are generally issued by a State agency of motor vehicles. License numbers may also be available for boats, airplanes, and farm vehicles.

State: The State in which the vehicle is licensed.

- ☛ If a commercial vehicle that is involved in the incident is licensed in multiple States, record the State license where the incident occurred. If no license exists for the incident’s State, use the State license of the vehicle’s home origin.

VIN: The manufacturer’s Vehicle Identification Number that is generally stamped on an identification plate on the mobile property.

Purpose

This element provides detailed information that identify the specific types of mobile property involved in an incident, which can be used to determine whether particular brands or models are more often a problem than others. Data on make, model, year, and other information are useful for determining compliance to standards of mobile properties and analyzing the effectiveness of these codes, standards, and regulations. The data also can be used to identify special hazards.

Entry

Enter the two-digit code and description of the property type. Enter the two-character code (from the list at the end of this chapter) and description of the property make. Enter the remaining information in Block H2 as appropriate. Be as specific as possible in making these entries.

- ☛ Both the License Plate Number and VIN are left-justified in their fields.

Example

A 1997 Ford XLT (11), licensed in North Carolina (AYB5628), ignited when it hit a telephone pole. The vehicle identification number was 234–233–1111–2676:

| | | | |
|---------------------------|--|---|--|
| | | H2 Mobile Property Type and Make | |
| 1 1 | | Automobile | |
| Mobile property type | | | |
| F O | | Ford | |
| Mobile property make | | | |
| Explorer XLT | | 1 9 9 7 | |
| Mobile property model | | Year | |
| A Y B 5 6 2 8 | | N C | |
| License Plate Number | | State | |
| | | 2 3 4 2 3 3 1 1 1 1 2 6 7 6 | |
| | | VIN | |

MOBILE PROPERTY TYPE CODES**Passenger Road Vehicles**

- 11 Automobile, passenger car, ambulance, limousine, race car, taxicab.
- 12 Bus, school bus. Includes “trackless” trolley buses.
- 13 Off-road recreational vehicle. Includes dune buggies, golf carts, go-carts, snowmobiles. Excludes sport utility vehicles (11) and motorcycles (18).
- 14 Motor home (has own engine), camper mounted on pickup, bookmobile.
- 15 Trailer, travel; designed to be towed.
- 16 Trailer, camping; collapsible, designed to be towed.
- 17 Mobile home, bank, classroom, or office (all designed to be towed), whether mounted on a chassis or on blocks for semipermanent use.
- 18 Motorcycle, trail bike. Includes motor scooters and mopeds.
- 10 Passenger road vehicles, other.

Freight Road Transport Vehicles

- 21 General use truck, dump truck, fire apparatus.
- 22 Pickup truck, hauling rig (non-motorized).
- 23 Trailer, semi; designed for freight (with or without tractor).
- 24 Tank truck, nonflammable cargo. Includes milk and water tankers, liquid nitrogen tankers.
- 25 Tank truck, flammable or combustible liquid, chemical cargo.
- 26 Tank truck, compressed gas or LP gas.
- 27 Garbage, waste, refuse truck. Includes recyclable material collection trucks. Excludes roll-on-type trash containers (73).
- 20 Freight road transport vehicles, other.

Rail Transport Vehicles

- 31 Diner car, passenger car.
- 32 Box, freight, or hopper car.
- 33 Tank car.
- 34 Container or piggyback car (see 73 for container).
- 35 Engine/locomotive.
- 36 Rapid transit car, trolley (self-powered for use on track). Includes self-powered rail passenger vehicles.
- 37 Maintenance equipment car. Includes cabooses and cranes.
- 30 Rail transport vehicles, other.

Water Vessels

- 41 Boat less than 65 ft (20 m) in length overall. Excludes commercial fishing vessels (48).
- 42 Boat or ship equal to or greater than 65 ft (20 m) in length but less than 1,000 tons.
- 43 Cruise liner or passenger ship equal to or greater than 1,000 tons.
- 44 Tank ship.
- 45 Personal water craft. Includes one- or two-person recreational water craft.
- 46 Cargo or military ship equal to or greater than 1,000 tons. Includes vessels not classified in 44 and 47.
- 47 Non-self-propelled vessel. Includes all vessels without their own motive power, such as towed petroleum balloons, barges, and other towed or towable vessels. Excludes sailboats (49).
- 48 Commercial fishing or processing vessel. Includes shell fishing vessels.
- 49 Sailboats. Includes those with auxiliary power.
- 40 Water vessels, other.

Aircraft

- 51 Personal, business, utility aircraft less than 12,500 lb (5,670 kg) gross weight. Includes gliders.
- 52 Personal, business, utility aircraft equal to or greater than 12,500 lb (5,670 kg) gross weight.
- 53 Commercial aircraft: propeller-driven, fixed-wing. Includes turbo props.
- 54 Commercial aircraft: jet and other turbine-powered, fixed-wing.
- 55 Helicopters, nonmilitary. Includes gyrocopters.
- 56 Military fixed-wing aircraft. Includes bomber, fighter, patrol, vertical takeoff and landing (fixed-wing vertical stall) aircraft.

- 57 Military non-fixed-wing aircraft. Includes helicopters.
 58 Balloon vehicles. Includes hot air balloons and blimps.
 50 Aircraft, other.

Industrial, Agricultural, Construction Vehicles

- 61 Construction vehicle. Includes bulldozers, shovels, graders, scrapers, trenchers, plows, tunneling equipment, and road pavers.
 63 Loader, industrial. Includes fork lifts, industrial tow motors, loaders, and stackers.
 64 Crane.
 65 Agricultural vehicle, baler, chopper (farm use).
 67 Timber harvest vehicle. Includes skycars, loaders.
 60 Industrial, construction, or agricultural vehicles, other.

Mobile Property, Miscellaneous

- 71 Home, garden vehicle. Includes riding lawnmowers, snow removal vehicles, riding tractors. Excludes equipment where operator does not ride. See Equipment Involved in Ignition.
 73 Shipping container, mechanically moved. Includes haulable trash containers, intermodal shipping containers.
 74 Armored vehicle. Includes armored cars and military vehicles. Excludes armored aircraft and ships.
 75 Missile, rocket, and space vehicles.
 76 Aerial tramway vehicle.
 00 Mobile property, other.
 NN No mobile property.

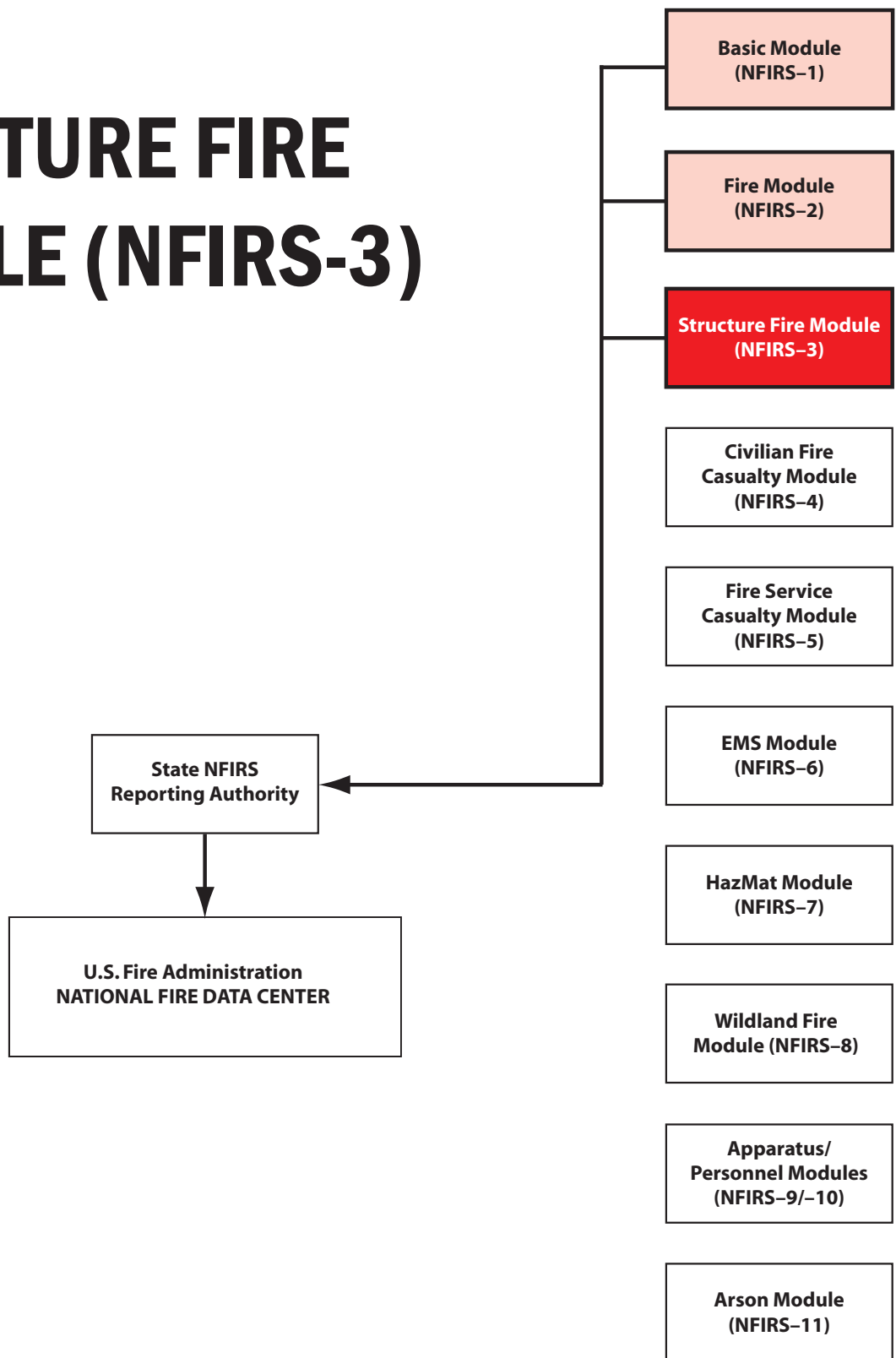
MOBILE PROPERTY MAKE CODES

| | | | | | |
|----|--------------------|----|---------------------|----|-------------------------|
| AC | Acura | CO | Continental | GE | Geo |
| AG | Agco | CC | Crane Carrier (CCC) | GI | Giehl |
| AR | Alfa Romeo | CU | Cub Cadet | GL | Gleaner |
| AL | Allis Chalmers | DA | Daihatsu | GM | GMC (General Motors) |
| AV | Antique Vehicle | DE | Demco | GV | GVM |
| AN | Ariens | DR | Diamond Reo | HD | Harley Davidson |
| AM | Aston Martin | DI | Dixon | HV | Harvester |
| AT | ATK | DO | Dodge | HB | Haybuster |
| AU | Audi | DU | Ducati | HS | Hesston |
| AY | Avery | DT | Duetz | HI | Hino |
| BS | Belarus | DS | Duetz-Allis | HO | Honda |
| BE | Beta | DF | Duetz-Fahr | HG | Hough |
| BM | BMW | ER | Eager | HS | Husky |
| BO | Bobcat | EA | Eagle | HU | Husqverna |
| BR | Briggs | EU | Euclid | HX | Hydrax |
| BL | Buell | FK | Farm King | HY | Hyundai |
| BU | Buick | FA | Farmall | IF | Infiniti |
| CD | Cadillac | FA | Farmall | IN | International |
| CA | Case | FM | Farmtrac | IL | International Farmall |
| CB | Case - David Brown | FE | Ferrari | IH | International Harvester |
| CI | Case IH | FT | Fetrel | IS | Isuzu |
| CP | Caterpillar | FO | Ford | IT | Italjet |
| CE | Century | FR | Freightliner | IV | Iveco |
| CH | Chevrolet | FG | Frigstad | JA | Jaguar |
| CR | Chrysler | FW | FWD | JE | Jeep |
| CV | Classic Vehicle | GH | Gehl | JD | John Deere |

| | | | | | |
|----|------------------------|----|-----------------|----|--------------|
| KA | Kawasaki | MO | Montesa | SD | Simon Duplex |
| KE | Kenworth | MW | Montgomery Ward | SI | Simplicity |
| KI | Kia | MG | Moto Guzzi | SN | Snapper |
| KZ | Kinze | MM | Moto Morini | SR | Steiger |
| KO | Kioti | MD | MTD | ST | Sterling |
| KN | Knight | MU | Murray | SU | Subaru |
| KM | Komatsu | NA | Navistar | SZ | Suzuki |
| KR | Krause | NH | New Holland | TT | Toro |
| KT | KTM | NE | New Idea | TO | Toyota |
| KU | Kubota | NI | Nissan | TL | Trelan |
| LC | Land Chief | OL | Oldsmobile | TR | Triumph |
| LR | Land Rover | OV | Oliver | TJ | Trojan |
| LT | Landtrac | OS | Oshkosh | TB | Troy-Bilt |
| LE | Lexus | OW | Owatona | UD | UD |
| LI | Lincoln | PT | Peterbilt | UR | Ursus |
| LN | Long | PU | Peugeot | UT | Utilmaster |
| LO | Lotus | PI | Pierce | VR | Vermeer |
| MN | MacDon | PL | Plymouth | VS | Versatile |
| MK | Mack | PN | Pontiac | VE | Vespa |
| ML | Maely | PR | Porsche | VO | Volkswagen |
| MI | Mahindra | RN | Range Rover | VL | Volvo |
| MA | Maico | RD | Red Devil | VG | Volvo GMC |
| MH | Marmon | RG | Rogue (Ottowa) | WK | Walker |
| MS | Maserati | RR | Rolls Royce | WL | Walter |
| MY | Massey Ferguson | SB | Saab | WS | Western Star |
| MV | Massey Harris-Ferguson | SA | Saturn | WW | Westward |
| MZ | Mazda | SG | Scagg | WH | White |
| MJ | McKee | SC | Scania | WG | White GMC |
| ME | Melroe | SE | Sears Craftsman | WD | Woods |
| MB | Mercedes Benz | SD | Simon Duplex | YA | Yamaha |
| MC | Mercury | SI | Simplicity | YM | Yardman |
| MR | Merkur | SN | Snapper | YU | Yugo |
| MF | MHF | SC | Scania | ZT | Zetor |
| MT | Mitsubishi | SE | Sears Craftsman | OO | Other Make |

Chapter 5

STRUCTURE FIRE MODULE (NFIRS-3)



| | | | | |
|---|---|--|---|---------------------------------------|
| I1 Structure Type ☆ If fire was in an enclosed building or a portable/mobile structure, complete the rest of this form. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/Mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air-supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g., piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g., fences) 0 <input type="checkbox"/> Other type of structure | I2 Building Status ☆ <ul style="list-style-type: none"> 1 <input type="checkbox"/> Under construction 2 <input type="checkbox"/> In normal use 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | I3 Building Height ☆ Count the roof as part of the highest story. <div style="margin-top: 10px;"> <input type="text"/> Total number of stories at or above grade. </div> <div style="margin-top: 10px;"> <input type="text"/> Total number of stories below grade. </div> | I4 Main Floor Size ☆ <div style="margin-top: 10px;"> <input type="text"/>, <input type="text"/>, <input type="text"/> Total square feet </div> <p style="text-align: center;">OR</p> <div style="margin-top: 10px;"> <input type="text"/>, <input type="text"/> BY <input type="text"/>, <input type="text"/> Length in feet Width in feet </div> | NFIRS-3 Structure Fire |
|---|---|--|---|---------------------------------------|

| | | |
|---|---|--|
| J1 Fire Origin ☆ <input type="text"/> Story of fire origin <input type="checkbox"/> Below grade | J3 Number of Stories Damaged by Flame Count the roof as part of the highest story. <ul style="list-style-type: none"> <input type="text"/> Number of stories w/minor damage (1 to 24% flame damage) <input type="text"/> Number of stories w/significant damage (25 to 49% flame damage) <input type="text"/> Number of stories w/heavy damage (50 to 74% flame damage) <input type="text"/> Number of stories w/extreme damage (75 to 100% flame damage) | K Type of Material Contributing Most to Flame Spread <ul style="list-style-type: none"> <input type="checkbox"/> Check if no flame spread OR if same as Material First Ignited (Block D4, Fire Module) OR if unable to determine. ➔ Skip to Section L K1 <input type="text"/> Item contributing most to flame spread K2 <input type="text"/> Type of material contributing most to flame spread Required only if item contributing code is 00 or <70. |
| J2 Fire Spread ☆ If fire spread was confined to object of origin, do not check a box (Ref. Block D3, Fire Module). <ul style="list-style-type: none"> 2 <input type="checkbox"/> Confined to room of origin 3 <input type="checkbox"/> Confined to floor of origin 4 <input type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin | | |

| | | |
|--|--|---|
| L1 Presence of Detectors ☆ (In area of the fire) <ul style="list-style-type: none"> N <input type="checkbox"/> None Present ➔ Skip to Section M 1 <input type="checkbox"/> Present U <input type="checkbox"/> Undetermined | L3 Detector Power Supply <ul style="list-style-type: none"> 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug-in 4 <input type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug-in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | L5 Detector Effectiveness Required if detector operated. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Alerted occupants, occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined |
| L2 Detector Type <ul style="list-style-type: none"> 1 <input type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke and heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than one type present 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | L4 Detector Operation <ul style="list-style-type: none"> 1 <input type="checkbox"/> Fire too small to activate 2 <input type="checkbox"/> Operated ➔ Complete Block L5 3 <input type="checkbox"/> Failed to operate ➔ Complete Block L6 U <input type="checkbox"/> Undetermined | L6 Detector Failure Reason Required if detector failed to operate. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Power failure, shutoff, or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes not cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined |

| | | |
|--|--|--|
| M1 Presence of Automatic Extinguishing System ☆ <ul style="list-style-type: none"> N <input type="checkbox"/> None Present ➔ Complete rest of Section M 1 <input type="checkbox"/> Present 2 <input type="checkbox"/> Partial System Present U <input type="checkbox"/> Undetermined | M3 Operation of Automatic Extinguishing System Required if fire was within designed range. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Operated/effective (go to M4) 2 <input type="checkbox"/> Operated/Not effective (go to M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | M5 Reason for Automatic Extinguishing System Failure Required if system failed or not effective. <ul style="list-style-type: none"> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined |
| M2 Type of Automatic Extinguishing System Required if fire was within designed range of AES. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Wet-pipe sprinkler 2 <input type="checkbox"/> Dry-pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen-type system 7 <input type="checkbox"/> Carbon dioxide (CO₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined | M4 Number of Sprinkler Heads Operating Required if system operated. <div style="margin-top: 10px;"> <input type="text"/> Number of sprinkler heads operating </div> | |

NFIRS-3 Revision 01/01/06

CHAPTER 5 • STRUCTURE FIRE MODULE (NFIRS-3)

The Structure Fire Module (NFIRS-3) should be completed for all structure fires. A structure is an assembly of materials forming a construction for occupancy or use to serve a specific purpose. This includes, but is not limited to, buildings, open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported structures, and grandstands. Users may also optionally complete the Fire Module for confined building fires (Incident Types 113–118), although it is not required.

Like the other modules, the Structure Fire Module is divided into sections and further subdivided into blocks. Only Block I1 must be completed for all structure fires. Completion of the remainder of the module is required only for building fires, although that portion of the module may also be completed for non-building structure fires if desired.

SECTION I

This section collects information about the structure involved in the fire, including its type, current status, height, and size.

I1 Structure Type ☆

Definition

The identification of a structure as a specific property type.

Purpose

Information on the structure type, combined with other structural characteristics, is useful for understanding fire behavior and provides assistance in targeting fire prevention or protection efforts.

Entry

Check or mark the box best indicating the type of structure involved in the fire. If the fire was in an enclosed building or a portable or mobile structure, complete the rest of the module.

- ☛ If the fire was not in an enclosed building (codes 0 and 3–8), no other entries on this module are required.

Example

The fire occurred in a two-story house (1):

| I1 Structure Type ☆ | |
|---|--|
| If fire was in an enclosed building or a portable/mobile structure, complete the rest of this form. | |
| 1 | <input checked="" type="checkbox"/> Enclosed building |
| 2 | <input type="checkbox"/> Portable/Mobile structure |
| 3 | <input type="checkbox"/> Open structure |
| 4 | <input type="checkbox"/> Air-supported structure |
| 5 | <input type="checkbox"/> Tent |
| 6 | <input type="checkbox"/> Open platform (e.g., piers) |
| 7 | <input type="checkbox"/> Underground structure (work areas) |
| 8 | <input type="checkbox"/> Connective structure (e.g., fences) |
| 0 | <input type="checkbox"/> Other type of structure |

STRUCTURE TYPE CODES

- | | |
|---|---|
| 1 | Enclosed building. Includes subway terminals and underground buildings. |
| 2 | Fixed portable or mobile structure. Includes mobile homes, campers, portable buildings, and the like that are used as permanent fixed structures. |
| 3 | Open structure. Includes bridges, trestles, drilling structures, open stairways and walkways, and the like. |
| 4 | Air-supported structure. |
| 5 | Tent. |
| 6 | Open platform. Includes piers, wharves without a superstructure, loading docks without a roof, and the like. |
| 7 | Underground structure work area. Includes tunnels and mines. Excludes subway terminals and underground buildings (1). |
| 8 | Connective structure. Includes fences, telephone poles, and pipelines. |
| 0 | Structure type, other. |

I2 Building Status ☆

Definition

The operational status of the building involved in the fire. This element indicates the actual use of the building at the time of the fire.

Purpose

Building status, combined with other structural characteristics, is useful for understanding fire behavior, the potential for loss of life and property, and the likely effectiveness of fire protection that existed before the fire.

Entry

Check or mark the box best indicating the status of the building involved in the fire.

Example

A family of four occupied the house (2):

| I ₂ Building Status ☆ | |
|----------------------------------|---|
| 1 | <input type="checkbox"/> Under construction |
| 2 | <input checked="" type="checkbox"/> In normal use |
| 3 | <input type="checkbox"/> Idle, not routinely used |
| 4 | <input type="checkbox"/> Under major renovation |
| 5 | <input type="checkbox"/> Vacant and secured |
| 6 | <input type="checkbox"/> Vacant and unsecured |
| 7 | <input type="checkbox"/> Being demolished |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

BUILDING STATUS CODES

| | |
|---|--|
| 1 | Under construction. |
| 2 | In normal use. Includes properties that are closed or unoccupied for a brief period of time, such as business closed for the weekend or a house with no one at home. |
| 3 | Idle, not routinely used (furnishings are in place). Includes seasonal properties during the off-season. |
| 4 | Under major renovation. |
| 5 | Vacant and secured. |
| 6 | Vacant and unsecured. |
| 7 | Being demolished. |
| 0 | Building status, other. |
| U | Undetermined. |

I₃ Building Height ☆

Definition

The number of stories at or above grade level and the number of stories below grade level in the fire building.

Purpose

Building height and depth below grade, combined with other structural characteristics, are useful for pre-fire planning as well as for gaining a better understanding of fire behavior. Some fire departments use building height and depth to determine life safety hazard values. The more difficult it is for people to escape, the higher the life safety hazard value for the building.

Entry

Enter the total number of stories at or above grade level and the total number of stories below grade level.

- ☛ For split grades, consider the main egress point as the “at grade” portion of the building.
- ☛ Do not count normally inaccessible attics, attics with less than standing height, or the roof as a story (i.e., the roof is counted as part of the highest story).

Example

The house was two stories high with no basement:

I3 Building Height ☆

Do not count the **roof** as a story.

Total number of stories at or above grade

Total number of stories below grade

I4 Main Floor Size ☆

Definition

The size of the main floor in square feet. This is an estimate.

Purpose

Main floor size, combined with other structural characteristics, is useful for evaluating firefighting operations and the need to allocate resources based on size and complexity of structures. It also helps in understanding the potential life and property at risk.

Entry

Enter the total square footage of the main floor, or enter the area using length-by-width measurements (in feet). Do not enter both.

Example

The main floor was 750 square feet:

I4 Main Floor Size ☆

Total square feet

OR

Length in feet **BY** Width in feet

SECTION J

This section collects information on where in the structure the fire originated, how far the fire spread, and the number of stories damaged by flame.

J1 Fire Origin ☆

Definition

Identifies the story where the fire originated within the building.

Purpose

The story of fire origin, combined with other structural characteristics, is helpful for gaining a better understanding of fire behavior and identifying any special problems in fire strategy and tactics. Information on the frequency and nature of above- or below-grade-level fires is needed for assessing aerial apparatus needs and performance. A fire in the upper levels of a high-rise building is often difficult to control because of delays in moving personnel and equipment to the fire floor.

Entry

Enter the story of fire origin. If below grade level, check or mark the Below Grade box.

☛ Checking or marking the Below Grade box has the effect of entering a negative number in NFIRS 5.0.

Example

The fire began in the master bedroom on the second story:

| | |
|--------------------------------|--------------------------------------|
| J1 | Fire Origin ☆ |
| <input type="text" value="2"/> | <input type="checkbox"/> Below grade |
| Story of fire origin | |

J2 Fire Spread ☆

Definition

The extent of fire spread in terms of how far the flame damage extended. The extent of flame damage is the area actually burned or charred and does not include the area receiving only heat, smoke, or water damage.

Purpose

In combination with other information, this element describes the magnitude or seriousness of the fire. It can be used to evaluate the effectiveness of built-in fire protection features or the effectiveness of the fire suppression force relative to the conditions faced. The confinement and extinguishment of a fire is influenced by many factors. Fire spread indicates the combined effect of these conditions. Also, the analysis of fire spread over many fires can reveal the effects of individual factors.

Entry

Check or mark the box best describing the extent of fire spread.

- ☛ If the fire was confined to the object of origin, an entry should have been made in Block D3 of the Fire Module. Do not check or mark any additional box in this block.
- ☛ A room is a partitioned part of the inside of a building. If the flame damage extends beyond the area of origin in a one-room building, such as a shed, the damage should be described as Confined to the Building of Origin. The Confined to the Building of Origin box is also the appropriate description if the fire was on the roof or outside wall of a building.

Example

A fire causes flame damage only in the room of origin (2):

| J2 Fire Spread ☆ | |
|---|--|
| If the fire spread was confined to object of origin, do not check a box (Ref. Block D3, Fire Module). | |
| 2 | <input checked="" type="checkbox"/> Confined to room of origin |
| 3 | <input type="checkbox"/> Confined to floor of origin |
| 4 | <input type="checkbox"/> Confined to building of origin |
| 5 | <input type="checkbox"/> Beyond building of origin |

FIRE SPREAD CODES

- | | |
|---|---------------------------------|
| 1 | Confined to object of origin. |
| 2 | Confined to room of origin. |
| 3 | Confined to floor of origin. |
| 4 | Confined to building of origin. |
| 5 | Beyond building of origin. |

J3 Number of Stories Damaged by Flame

Definition

The number of stories damaged by flame spread. Flame damage is the area actually burned or charred and does not include areas receiving only heat, smoke, or water damage.

Purpose

In combination with other information, this element describes the magnitude or seriousness of the fire. It can be used to evaluate the effectiveness of built-in fire protection features or the effectiveness of the fire suppression force relative to the conditions faced. The confinement and extinguishment of a fire is influenced by many factors. Fire spread indicates the combined effect of these conditions. Also, the analysis of fire spread over many fires can reveal the effects of individual factors.

Entry

Enter the number of stories damaged by flame according to the indicated criteria.

☛ Count the roof as part of the top story.

Example

Two stories were heavily damaged by the fire, and one story had only minor flame damage:

| J3 Number of Stories Damaged by Flame | |
|--|---|
| Count the roof as part of the highest story. | |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1 | Number of stories w/minor damage (1 to 24% flame damage) |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Number of stories w/significant damage (25 to 49% flame damage) |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 2 | Number of stories w/heavy damage (50 to 74% flame damage) |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Number of stories w/extreme damage (75 to 100% flame damage) |

SECTION K

This section captures information on the actual item and material that were most involved in the spread of the fire (if different from the item first ignited).

Check or mark the box at the top of this section and skip to Section L if (1) there was no significant flame spread, (2) the flame spread was confined to the material first ignited, or (3) determining the flame spread was not possible.

K1 Item Contributing Most to Flame Spread

Definition

The item contributing most to flame spread, if different from the Item First Ignited (Fire Module, Block D3).

Purpose

This information helps determine why fires advance through a structure and understand the rate at which they develop. A study of this entry also aids in assessing the need for flammability standards and other safety standards. This information can also be helpful to manufacturers for product improvement.

Entry

Enter the two-digit code and description best describing the item contributing most to flame spread.

- 36 Curtain, blind, drapery, tapestry.
- 37 Goods not made up. Includes fabrics and yard goods.
- 38 Luggage.
- 30 Soft goods, wearing apparel, other.

Adornment, Recreational Material, Signs

- 41 Christmas tree.
- 42 Decoration.
- 43 Sign. Includes outdoor signs such as billboards.
- 44 Chips. Includes wood chips.
- 45 Toy, game.
- 46 Awning, canopy.
- 47 Tarpaulin, tent.
- 40 Adornment, recreational material, signs, other.

Storage Supplies

- 51 Box, carton, bag, basket, barrel. Includes wastebaskets.
- 52 Material being used to make a product. Includes raw materials used as input to a manufacturing or construction process. Excludes finished products.
- 53 Pallet, skid (empty). Excludes palletized stock (58).
- 54 Cord, rope, twine, yarn.
- 55 Packing, wrapping material.
- 56 Baled goods or material. Includes bale storage.
- 57 Bulk storage.
- 58 Palletized material, material stored on pallets.
- 59 Rolled, wound material. Includes rolled paper and fabrics.
- 50 Storage supplies, other.

Liquids, Piping, Filters

- 61 Atomized, vaporized liquid. Included are aerosols.
- 62 Flammable liquid/gas (fuel) in or escaping from combustion engines.
- 63 Flammable liquid/gas in or escaping from final container or pipe before engine or burner. Includes piping between the engine and the burner.
- 64 Flammable liquid/gas in or escaping from container or pipe. Excludes engines, burners, and their fuel systems.
- 65 Flammable liquid/gas, uncontained. Includes accelerants.
- 66 Pipe, duct, conduit, hose.
- 67 Pipe, duct, conduit, or hose covering. Includes insulating materials whether for acoustical or thermal purposes, and whether inside or outside the pipe, duct, conduit, or hose.
- 68 Filter. Includes evaporative cooler pads.
- 60 Liquids, piping, filters, other.

Organic Materials

- 71 Agricultural crop. Includes fruits and vegetables.
- 72 Light vegetation (not crop). Includes grass, leaves, needles, chaff, mulch, and compost.
- 73 Heavy vegetation (not crop). Includes trees and brush.
- 74 Animal, living or dead.
- 75 Human, living or dead.
- 76 Cooking materials. Includes edible materials for man or animal. Excludes cooking utensils (26).
- 77 Feathers or fur. Excludes feathers or fur not on bird or animal, and not processed into a product.
- 70 Organic materials, other.

General Materials

| | |
|----|---|
| 81 | Electrical wire, cable insulation. Do not classify the insulation on the wiring as the item first ignited unless there were no other materials in the immediate area, such as might be found in a cable tray or electrical vault. |
| 82 | Transformer. Includes transformer fluids. |
| 83 | Conveyor belt, drive belt, V-belt. |
| 84 | Tire. |
| 85 | Railroad ties. |
| 86 | Fence, pole. |
| 87 | Fertilizer. |
| 88 | Pyrotechnics, explosives. |

General Materials Continued

| | |
|----|--|
| 91 | Book. |
| 92 | Magazine, newspaper, writing paper. Includes files. |
| 93 | Adhesive. |
| 94 | Dust, fiber, lint. Includes sawdust and excelsior. |
| 95 | Film, residue. Includes paint, resin, and chimney film or residue and other films and residues produced as a by-product of an operation. |
| 96 | Rubbish, trash, waste. |
| 97 | Oily rags. |
| 00 | Item contributing most to flame spread, other. |
| UU | Undetermined. |

Type of Material Contributing Most to Flame Spread

- ☛ This field is required only if the Item Contributing Most to Flame Spread code is “00” or a number less than “70.”

Definition

The type of material contributing most to flame spread, if different from the Type of Material First Ignited (Fire Module, Block D4). Skip this block if the material is unknown.

Type of material refers to the raw, common, or natural state in which the material exists. The type of material may be a gas, flammable liquid, chemical, plastic, wood, paper, fabric, or any number of other materials.

Purpose

Knowing what type of material contributed most to flame spread is helpful in finding out why fires advance through a structure and understanding the rate at which fires develop. A study of this entry also aids in assessing the need for standards on the flammability of materials. This information can also be helpful to manufacturers for improving products.

Entry

Enter the two-digit code and description that best describes the type of material contributing most to flame spread.

Example

The fabric (71) that the sofa was upholstered with contributed most to flame spread:

| | | |
|-----------|---|--|
| K | Type of Material Contributing Most to Flame Spread | |
| | <input type="checkbox"/> | Check if no flame spread OR if same as Material First Ignited (Block D4, Fire Module) OR if unable to determine. ➔ Skip to Section L |
| | K1 | <input type="text" value="21"/> <input type="text" value="Sofa"/> Item contributing most to flame spread |
| K2 | <input type="text" value="71"/> <input type="text" value="Fabric"/> Type of material contributing most to flame spread Required only if item contributing code is 00 or <70. | |

- An alphabetized synonym list for the following Type of Material Contributing Most to Flame Spread codes is presented in Appendix B.

TYPE OF MATERIAL CONTRIBUTING MOST TO FLAME SPREAD CODES**Flammable Gas**

- 11 Natural gas. Includes methane and marsh gas.
- 12 LP gas. Includes butane, butane and air mixtures, and propane gas.
- 13 Anesthetic gas.
- 14 Acetylene gas
- 15 Hydrogen.
- 10 Flammable gas, other. Includes benzene, benzol, carbon disulfide, carbon monoxide, ethylene, ethylene oxide, and vinyl chloride.

Flammable or Combustible Liquid

- 21 Ether, pentane-type flammable liquid. Includes all Class 1A flammable liquids.
- 22 JP-4 jet fuel and methyl-ethyl-ketone-type flammable liquid. Includes all Class 1B flammable liquids. Excludes gasoline (23).
- 23 Gasoline.
- 24 Turpentine, butyl-alcohol-type flammable liquid. Includes all Class 1C flammable liquids.
- 25 Kerosene; Nos. 1 and 2 fuel oil; diesel-type combustible liquid. Includes all Class II combustible liquids.
- 26 Cottonseed oil; Nos. 4, 5, and 6 fuel oil; creosote-oil-type combustible liquid. Includes all Class IIIA combustible liquids.
- 27 Cooking oil, transformer oil, lubricating oil. Includes all Class IIIB combustible liquids.
- 20 Flammable or combustible liquid, other.

Volatile Solid or Chemical

- 31 Fat, grease, butter, margarine, lard, tallow.
- 32 Petroleum jelly and nonfood grease.
- 33 Polish, paraffin, wax.
- 34 Adhesive, resin, tar, glue, asphalt, pitch, soot.

- 35 Paint, varnish—applied.
- 36 Combustible metal. Includes magnesium, titanium, and zirconium.
- 37 Solid chemical. Includes explosives. Excludes liquid chemicals (division 2) and gaseous chemicals (division 1).
- 38 Radioactive material.
- 30 Volatile solid or chemical, other.

Plastics

- 41 Plastic, regardless of type. Excludes synthetic fibers, coated fabrics, plastic upholstery.

Natural Product

- 51 Rubber, tire rubber. Excludes synthetic rubbers (classify as plastics (41)).
- 52 Cork.
- 53 Leather.
- 54 Hay, straw.
- 55 Grain, natural fiber. Includes cotton, feathers, felt, barley, corn, coconut. Excludes fabrics and furniture batting (71).
- 56 Coal, coke, briquettes, peat. Includes briquettes of carbon black and charcoal.
- 57 Food, starch. Includes flour. Excludes fat or grease (31).
- 58 Tobacco.
- 50 Natural product, other. Includes manure.

Wood or Paper – Processed

- 61 Wood chips, sawdust, wood shavings.
- 62 Round timber. Includes round posts, poles, and piles.
- 63 Sawn wood. Includes all finished lumber and wood shingles.
- 64 Plywood.
- 65 Fiberboard, particleboard, and hardboard. Includes low-density pressed wood fiberboard products.
- 66 Wood pulp, wood fiber.
- 67 Paper. Includes cellulose, waxed paper, sensitized paper, and ground-up processed paper and newsprint used as thermal insulation.
- 68 Cardboard.
- 60 Wood or paper, processed, other.

Fabric, Textiles, Fur

- 71 Fabric, fiber, cotton, blends, rayon, wool, finished goods. Includes yarn and canvas. Excludes fur and silk (74).
- 74 Fur, silk, other fabric, finished goods. Excludes fabrics listed in Code 71.
- 75 Wig.
- 76 Human hair.
- 77 Plastic-coated fabric. Includes plastic upholstery fabric and other vinyl fabrics.
- 70 Fabric, textiles, fur, other.

Material Compounded With Oil

- 81 Linoleum.
- 82 Oilcloth.
- 86 Asphalt-treated material. Excludes by-products of combustion, soot, carbon, creosote (34).
- 80 Material compounded with oil, other.
- 00 Type of material contributing most to flame spread, other.
- UU Undetermined.

SECTION L

These data elements identify the type and operating principle of detectors present in the area of origin or in near proximity to the area of origin such that they would be instrumental in detecting the fire in its early stages.

L¹ Presence of Detectors ☆

Definition

The existence of fire detection equipment within its designed range of the fire.

Purpose

Knowing whether or not detectors were present at the fire is useful for evaluating their effectiveness can be evaluated if they were present and within their designed range.

Entry

Check or mark the box that best describes the presence of detectors. If no detectors were present within their designed range of the fire, check or mark the None Present box and skip to Section M.

Example

No detectors (N) were present in a structure where the fire occurred:

| | | |
|----------------|--------------------------------|--|
| L ¹ | Presence of Detectors ☆ | |
| | (In area of the fire) | |
| | N | <input checked="" type="checkbox"/> None Present → Skip to Section M |
| | 1 | <input type="checkbox"/> Present |
| | U | <input type="checkbox"/> Undetermined |

PRESENCE OF DETECTORS CODES

| | |
|---|---------------|
| 1 | Present. |
| N | None present. |
| U | Undetermined. |

L² Detector Type

Definition

Identifies the type of fire detection system that was present in the area of fire origin.

Purpose

The type of detectors present at the fire is important to the understanding of fire control and life safety in properties with and without detection equipment.

Entry

Check or mark the box that indicates the type of detector present in the area of fire origin.

☛ This field is required if the fire was within the designed range of the detector.

Example

A smoke detector (1) was present in the area of fire origin:

| L ₂ Detector Type | |
|------------------------------|--|
| 1 | <input checked="" type="checkbox"/> Smoke |
| 2 | <input type="checkbox"/> Heat |
| 3 | <input type="checkbox"/> Combination smoke and heat |
| 4 | <input type="checkbox"/> Sprinkler, water flow detection |
| 5 | <input type="checkbox"/> More than one type present |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

DETECTOR TYPE CODES

| | |
|---|--|
| 1 | Smoke. |
| 2 | Heat. |
| 3 | Combination smoke and heat in a single unit. |
| 4 | Sprinkler, water flow detection. |
| 5 | More than one type present. |
| 0 | Detector type, other. |
| U | Undetermined. |

L³ Detector Power Supply

Definition

Identifies the type of power supplying the detector.

Purpose

The reliability of detectors present at a fire is an important part of detector performance, especially if maintenance was poor or a power failure occurred before or during the fire.

Entry

Check or mark the box best indicating the type of power supply used by the detector.

☛ This field is required if the fire was within the designed range of the detector.

Example

The smoke detector ran on battery (1) power:

| L ₃ Detector Power Supply | |
|--------------------------------------|--|
| 1 | <input checked="" type="checkbox"/> Battery only |
| 2 | <input type="checkbox"/> Hardwire only |
| 3 | <input type="checkbox"/> Plug-in |
| 4 | <input type="checkbox"/> Hardwire with battery |
| 5 | <input type="checkbox"/> Plug-in with battery |
| 6 | <input type="checkbox"/> Mechanical |
| 7 | <input type="checkbox"/> Multiple detectors & power supplies |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

DETECTOR POWER SUPPLY CODES

| | |
|---|---|
| 1 | Battery only. |
| 2 | Hardwire only. |
| 3 | Plug-in. |
| 4 | Hardwire with battery backup. |
| 5 | Plug-in with battery backup. |
| 6 | Mechanical. Includes spring-wound, stored pressure source, etc. |
| 7 | Multiple detectors and power supplies. |
| 0 | Detector power supply, other. |
| U | Undetermined. |

L⁴ Detector Operation

Definition

The operation and effectiveness of the detector relative to the area of fire origin.

Purpose

The information on the usage, reliability, and effectiveness of automatic detection equipment is important to the understanding of fire control and life safety with and without detection equipment. This item is not designed to evaluate any alarm transmission capability of the system, only the detection of the fire.

Entry

Check or mark the box best describing the location and operation of the detector.

☛ This field is required if the fire was within the designed range of the detector.

Example

The smoke detector failed to operate (3):

| L4 | | Detector Operation | |
|----|-------------------------------------|----------------------------|-------------------|
| 1 | <input type="checkbox"/> | Fire too small to activate | |
| 2 | <input type="checkbox"/> | Operated | Complete Block L5 |
| 3 | <input checked="" type="checkbox"/> | Failed to operate | Complete Block L6 |
| 4 | <input type="checkbox"/> | Undetermined | |

DETECTOR OPERATION CODES

- | | |
|---|--------------------------------------|
| 1 | Fire too small to activate detector. |
| 2 | Detector operated. |
| 3 | Detector failed to operate. |
| U | Undetermined. |

L5 Detector Effectiveness

Definition

The effectiveness of the fire detection equipment in alerting occupants.

Purpose

Information on the effectiveness of automatic detection equipment is important for understanding whether fire detection equipment is accomplishing the task for which it is designed.

Entry

Check or mark the box best describing the effectiveness of the detector.

☛ This field is required if the detector operated.

Example

Heat detectors in the room of origin alerted the building occupants (1), who promptly evacuated:

| L5 | | Detector Effectiveness | |
|--------------------------------|-------------------------------------|--|--|
| Required if detector operated. | | | |
| 1 | <input checked="" type="checkbox"/> | Alerted occupants, occupants responded | |
| 2 | <input type="checkbox"/> | Alerted occupants, occupants failed to respond | |
| 3 | <input type="checkbox"/> | There were no occupants | |
| 4 | <input type="checkbox"/> | Failed to alert occupants | |
| U | <input type="checkbox"/> | Undetermined | |

DETECTOR EFFECTIVENESS CODES

- 1 Detector alerted occupants, occupants responded.
- 2 Detector alerted occupants, occupants failed to respond.
- 3 There were no occupants.
- 4 Detector failed to alert occupants.
- U Undetermined.

L⁶ Detector Failure Reason*Definition*

The reason why the detector failed to operate or did not operate properly.

Purpose

Information on why automatic detection equipment did not operate is important to the evaluation of detection equipment and can be used to improve reliability or installation of detectors.

Entry

Check or mark the box best describing why the detector failed to operate or did not operate properly.

☛ This field is required if the detector failed to operate.

Example

Heat detectors in the room of origin did not activate because they were improperly installed (2):

L⁶ Detector Failure Reason

Required if detector failed to operate

- 1 Power failure, shutoff, or disconnect
- 2 Improper installation or placement
- 3 Defective
- 4 Lack of maintenance, includes not cleaning
- 5 Battery missing or disconnected
- 6 Battery discharged or dead
- 0 Other
- U Undetermined

DETECTOR FAILURE REASON CODES

- 1 Power failure or hardwired detector shut off or disconnected.
- 2 Improper installation or placement of detector.
- 3 Defective detector.
- 4 Lack of maintenance. Includes not cleaning.
- 5 Battery missing or disconnected.
- 6 Battery discharged or dead.
- 0 Detector failure reason, other.
- U Undetermined.

SECTION M

These data elements identify the type and operating principle of an automatic extinguishing system (AES) present in the area of origin or in near proximity to the area of origin such that it would be instrumental in suppressing the fire in its early stages.

M¹ Presence of Automatic Extinguishing System ☆

Definition

The existence of an AES within the AES's designed range of a fire.

Purpose

If an AES was present at the fire, its effectiveness can be evaluated if it was within its designed range of the fire.

Entry

Check or mark the box that best describes the presence of an AES. If no AES was present, check or mark the None Present box; no other entries are required on this module.

Example

An AES was present (1) in the structure where the fire occurred:

| M ₁ Presence of Automatic Extinguishing System ☆ | |
|---|---|
| N | <input type="checkbox"/> None Present |
| 1 | <input checked="" type="checkbox"/> Present |
| 2 | <input type="checkbox"/> Partial System Present |
| U | <input type="checkbox"/> Undetermined |

Complete rest of Section M

PRESENCE OF AUTOMATIC EXTINGUISHING SYSTEM CODES

| | |
|---|-------------------------|
| 1 | Present. |
| 2 | Partial System Present. |
| N | None present. |
| U | Undetermined. |

M² Type of Automatic Extinguishing System

Definition

Identifies the type of automatic extinguishing system that was present in the area of fire origin.

Purpose

Information on the type of AES present at the fire is important to the understanding of fire control and life safety in properties with and without automatic extinguishing system.

Entry

Check or mark the box that indicates the type of AES present in the area of fire origin. If multiple systems are present, indicate the system designed to protect the hazard where the fire started.

☛ This field is required if the fire was within the designed range of the AES.

Example

The AES was a wet-pipe sprinkler system (1):

| M₂ | | Type of Automatic Extinguishing System |
|---|-------------------------------------|---|
| Required if fire was within designed range of AES | | |
| 1 | <input checked="" type="checkbox"/> | Wet-pipe sprinkler |
| 2 | <input type="checkbox"/> | Dry-pipe sprinkler |
| 3 | <input type="checkbox"/> | Other sprinkler system |
| 4 | <input type="checkbox"/> | Dry chemical system |
| 5 | <input type="checkbox"/> | Foam system |
| 6 | <input type="checkbox"/> | Halogen-type system |
| 7 | <input type="checkbox"/> | Carbon dioxide (CO₂) system |
| 0 | <input type="checkbox"/> | Other special hazard system |
| U | <input type="checkbox"/> | Undetermined |

TYPE OF AUTOMATIC EXTINGUISHING SYSTEM CODES

- | | |
|---|--|
| 1 | Wet-pipe sprinkler system. |
| 2 | Dry-pipe sprinkler system. |
| 3 | Other sprinkler system. Includes deluge sprinkler systems and pre-action sprinkler systems. |
| 4 | Dry chemical system. |
| 5 | Foam system. |
| 6 | Halogen-type system. Includes nonhalogenated suppression systems that operate on the same principle. |
| 7 | Carbon dioxide system. |
| 0 | Special hazard system, other. |
| U | Undetermined. |

M³ Operation of Automatic Extinguishing System

Definition

The operation and effectiveness of the automatic extinguishing system relative to the area of fire origin.

Purpose

Knowing the usage, reliability, and effectiveness of AESs is important to the understanding of fire control and life safety in buildings with and without extinguishing equipment.

Entry

Check or mark the box that indicates if the AES operated and was or was not effective. Effective does not necessarily mean complete extinguishing, but the system must at least contain and control the fire until the fire department can complete extinguishment.

M5 Reason for Automatic Extinguishing System Failure

Definition

The reason why the automatic extinguishing system failed to operate or did not operate properly.

Purpose

Information on the effectiveness of an AES is important for understanding the reasons why systems fail so they can be redesigned or additional safeguards put in place.

Entry

Check or mark the box that best describes why the AES failed to operate or was not effective.

☛ This field is required if the system failed to operate.

Example

The system did not operate because the fire was in the ceiling space above the AES (5):

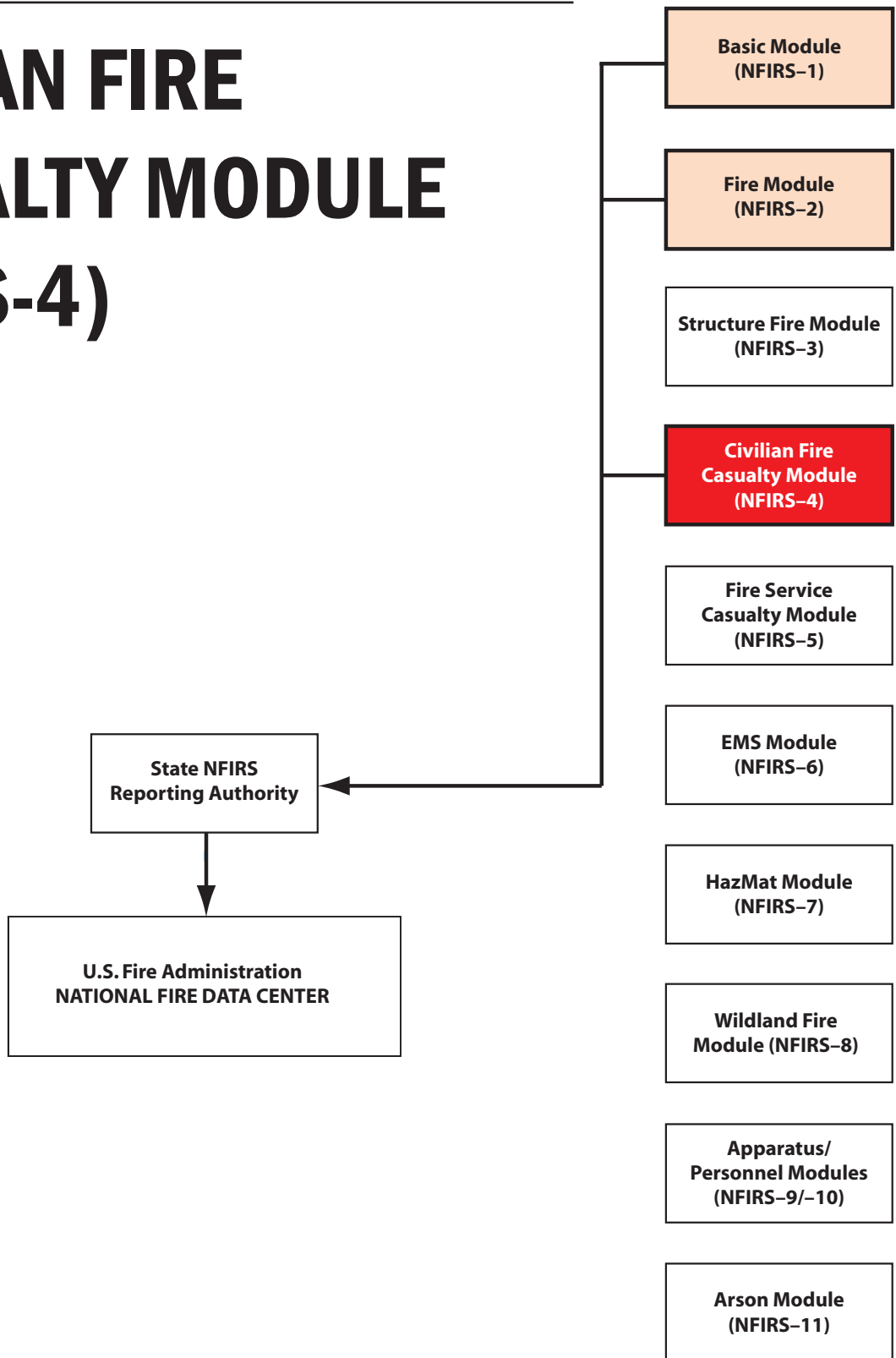
| M5 Reason for Automatic Extinguishing System Failure | |
|---|--|
| Required if system failed or not effective | |
| 1 | <input type="checkbox"/> System shut off |
| 2 | <input type="checkbox"/> Not enough agent discharged |
| 3 | <input type="checkbox"/> Agent discharged but did not reach fire |
| 4 | <input type="checkbox"/> Wrong type of system |
| 5 | <input checked="" type="checkbox"/> Fire not in area protected |
| 6 | <input type="checkbox"/> System components damaged |
| 7 | <input type="checkbox"/> Lack of maintenance |
| 8 | <input type="checkbox"/> Manual intervention |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

REASON FOR AUTOMATIC EXTINGUISHING SYSTEM FAILURE CODES

| | |
|---|---|
| 1 | System shut off. |
| 2 | Not enough agent discharged to control the fire. |
| 3 | Agent discharged, but did not reach the fire. |
| 4 | Inappropriate system for the type of fire. |
| 5 | Fire not in area protected by the system. |
| 6 | System components damaged. |
| 7 | Lack of maintenance. Includes corrosion or heads painted. |
| 8 | Manual intervention defeated the system. |
| 0 | Reason system not effective, other. |
| U | Undetermined. |

Chapter 6

CIVILIAN FIRE CASUALTY MODULE (NFIRS-4)



| | | | | | | | | |
|----------|---------------------------|----------------------------|------------------------------------|------------------------------|--------------------------------------|-------------------------------|--|---|
| A | FDID <input type="text"/> | State <input type="text"/> | Incident Date <input type="text"/> | Station <input type="text"/> | Incident Number <input type="text"/> | Exposure <input type="text"/> | <input type="checkbox"/> Delete <input type="checkbox"/> Change | NFIRS-4 Civilian Fire Casualty |
|----------|---------------------------|----------------------------|------------------------------------|------------------------------|--------------------------------------|-------------------------------|--|---|

| | | |
|--|--|--------------------------------------|
| B Injured Person | Gender 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female | C Casualty Number |
| First Name <input type="text"/> MI <input type="text"/> Last Name <input type="text"/> Suffix <input type="text"/> | | Casualty Number <input type="text"/> |

| | | | |
|--|--|--|--|
| D Age or Date of Birth | E1 Race | F Affiliation | H Severity |
| Age <input type="text"/> <input type="checkbox"/> Months (for infants) OR Date of Birth Month <input type="text"/> Day <input type="text"/> Year <input type="text"/> | 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black, African American 3 <input type="checkbox"/> Am. Indian, Alaska Native 4 <input type="checkbox"/> Asian 5 <input type="checkbox"/> Native Hawaiian, Other Pacific Islander 0 <input type="checkbox"/> Other, multiracial U <input type="checkbox"/> Undetermined | 1 <input type="checkbox"/> Civilian 2 <input type="checkbox"/> EMS, not fire department 3 <input type="checkbox"/> Police 0 <input type="checkbox"/> Other | 1 <input type="checkbox"/> Minor 2 <input type="checkbox"/> Moderate 3 <input type="checkbox"/> Severe 4 <input type="checkbox"/> Life threatening 5 <input type="checkbox"/> Death U <input type="checkbox"/> Undetermined |
| | E2 Ethnicity | G Date and Time of Injury | |
| | 1 <input type="checkbox"/> Hispanic or Latino 0 <input type="checkbox"/> Non Hispanic or Latino | Date of Injury <input type="text"/> Time of Injury <input type="text"/> <small>Midnight is 0000.</small> Month <input type="text"/> Day <input type="text"/> Year <input type="text"/> Hour <input type="text"/> Minute <input type="text"/> | |

| | | |
|--|--|---|
| I Cause of Injury | J Human Factors Contributing to Injury | K Factors Contributing to Injury |
| 1 <input type="checkbox"/> Exposed to fire products including flame heat, smoke, and gas 2 <input type="checkbox"/> Exposed to toxic fumes other than smoke 3 <input type="checkbox"/> Jumped in escape attempt 4 <input type="checkbox"/> Fell, slipped, or tripped 5 <input type="checkbox"/> Caught or trapped 6 <input type="checkbox"/> Structural collapse 7 <input type="checkbox"/> Struck by or contact with object 8 <input type="checkbox"/> Overexertion or strain 9 <input type="checkbox"/> Multiple causes 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | <input type="checkbox"/> None Check all applicable boxes 1 <input type="checkbox"/> Asleep 2 <input type="checkbox"/> Unconscious 3 <input type="checkbox"/> Possibly impaired by alcohol 4 <input type="checkbox"/> Possibly impaired by other drug 5 <input type="checkbox"/> Possibly mentally disabled 6 <input type="checkbox"/> Physically disabled 7 <input type="checkbox"/> Physically restrained 8 <input type="checkbox"/> Unattended person | <input type="checkbox"/> None Enter up to three contributing factors Contributing factor (1) <input type="text"/> Contributing factor (2) <input type="text"/> Contributing factor (3) <input type="text"/> |

| | | |
|---|---|---|
| L Activity When Injured | M1 Location at Time of Incident | M3 Story at Start of Incident |
| 1 <input type="checkbox"/> Escaping 2 <input type="checkbox"/> Rescue attempt 3 <input type="checkbox"/> Fire control 4 <input type="checkbox"/> Return to fire before control 5 <input type="checkbox"/> Return to fire after control 6 <input type="checkbox"/> Sleeping 7 <input type="checkbox"/> Unable to act 8 <input type="checkbox"/> Irrational act 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | 1 <input type="checkbox"/> In area of origin and not involved 2 <input type="checkbox"/> Not in area of origin and not involved 3 <input type="checkbox"/> Not in area of origin, but involved 4 <input type="checkbox"/> In area of origin and involved 0 <input type="checkbox"/> Other location U <input type="checkbox"/> Undetermined | Complete ONLY if injury occurred INSIDE Story at start of incident <input type="text"/> <input type="checkbox"/> Below grade |
| | M2 General Location at Time of Injury | M4 Story Where Injury Occurred |
| | 1 <input type="checkbox"/> In area of fire origin 2 <input type="checkbox"/> In building, but not in area 3 <input type="checkbox"/> Outside, but not in area U <input type="checkbox"/> Undetermined | Story where injury occurred, if different from M3 <input type="text"/> <input type="checkbox"/> Below grade |
| | | M5 Specific Location at Time of Injury |
| | | Complete ONLY if casualty NOT in area of origin Specific location at time of injury <input type="text"/> |

| | | |
|--|---|--|
| N Primary Apparent Symptom | O Primary Area of Body Injured | P Disposition |
| 01 <input type="checkbox"/> Smoke only, asphyxiation 11 <input type="checkbox"/> Burns and smoke inhalation 12 <input type="checkbox"/> Burns only 21 <input type="checkbox"/> Cut, laceration 33 <input type="checkbox"/> Strain or sprain 96 <input type="checkbox"/> Shock 98 <input type="checkbox"/> Pain only <small>Look up a code only if the symptom is NOT found above</small> Primary apparent symptom <input type="text"/> | 1 <input type="checkbox"/> Head 2 <input type="checkbox"/> Neck and shoulder 3 <input type="checkbox"/> Thorax 4 <input type="checkbox"/> Abdomen 5 <input type="checkbox"/> Spine 6 <input type="checkbox"/> Upper extremities 7 <input type="checkbox"/> Lower extremities 8 <input type="checkbox"/> Internal 9 <input type="checkbox"/> Multiple body parts | <input type="checkbox"/> Transported to emergency care facility Remarks <input type="text"/> Local option |

CHAPTER 6 • CIVILIAN FIRE CASUALTY MODULE (NFIRS-4)

The Civilian Fire Casualty Module should be completed whenever there are civilian casualties resulting from a fire. A *fire casualty* is a person who is injured or killed as a result of a fire, including injuries or deaths from natural or accidental causes sustained while involved in the activities of fire control, attempting rescue, or escaping from the dangers of the fire. Fires include Incident Types 100–199 as recorded on the Basic Module, Section C.

- ☛ If a civilian injury is not directly related to fire, it may be reported on an EMS Module with the same incident ID information.

A separate Civilian Fire Casualty Module is required for each fire casualty.

SECTION A

The guidance and directions for completing Section A of the Civilian Fire Casualty Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Civilian Fire Casualty Module must be identical with the entries on the corresponding Basic Module. If injuries occur in an exposure fire, the casualty report should have the same entries as those from Section A of the Basic Module for that exposure fire. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If the casualty resulted from an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous Civilian Fire Casualty Module or a deletion of all information regarding the casualty.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this civilian casualty and now want to have the data on this casualty deleted from the database. If this box is marked, complete Section A, the Casualty Number originally assigned (Section C), and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Injured Person

Definition

The first name, middle initial, last name, and gender that identifies the casualty.

Purpose

The name of the casualty may be required for legal purposes. It may also be useful for notification to employers, for insurance purposes, and for filing disability claims.

Entry

Enter the full name of the person. Names should be clearly printed or typed. Check or mark the appropriate box that indicates the injured person's gender.

☛ Gender is a required field.

Example

The casualty's name is Elizabeth P. Dandridge:

| | | | | |
|-------------------------|----|-----------|---------------------------------|--|
| B Injured Person | | | ★ Gender | |
| | | | 1 <input type="checkbox"/> Male | 2 <input checked="" type="checkbox"/> Female |
| Elizabeth | P | Dandridge | | |
| First Name | MI | Last Name | Suffix | |

GENDER CODES

- 1 Male.
- 2 Female.

SECTION C

C Casualty Number ★

Definition

A unique number is assigned to each casualty occurring at a single incident or resulting from an incident.

Purpose

The casualty number identifies each casualty separately in the casualty file. Data and information concerning the casualty can be accessed using this number in conjunction with other unique field information.

Entry

Enter the casualty number assigned to this casualty. A separate Casualty Number is assigned to each casualty. The first casualty is always coded "001," and each succeeding casualty is numbered sequentially and incremented by 1 beginning with "002." The three-character numeric field is zero filled, not right justified.

Example

There were four casualties as a result of a vehicle fire; the first casualty's number is 001:

| |
|----------------------------|
| C Casualty Number ★ |
| 0 0 1 |
| Casualty Number |

SECTION D

D Age or Date of Birth ☆

Enter either the fire casualty's age or the casualty's date of birth. Do not enter both.

Age ☆*Definition*

The casualty's age in years or, if the casualty is an infant, the age in months.

Purpose

The age of the casualty provides a critical piece of demographic information on fire losses and allows further analysis of population groups at high risk from fires. This information is important for prevention efforts and allows NFIRS fire casualty data to be combined with other fire mortality or demographic databases.

Entry

Enter the age of the casualty. Estimate the age if it cannot be determined. If the age is calculated in months, check or mark the Months (for Infants) box.

Example

The casualty was an 8-month-old baby:

| | | |
|---------------------------------|-------------------------------------|----------------------|
| D Age or Date of Birth ☆ | | |
| _ _ 8 | <input checked="" type="checkbox"/> | Months (for infants) |
| Age | | |
| OR | | |
| Date of Birth | | |
| _ | _ | _ _ _ |
| Month | Day | Year |

Date of Birth ☆*Definition*

The month, day, and year of birth of the casualty.

Purpose

This data element is an alternative entry for Age. It can provide an indication of fire loss, and can be used to indicate type, severity, and cause of injury to identify trends and patterns that might be helpful in planning injury prevention techniques.

- ☛ This data element is used as an alternate method for calculating the casualty's age. Age is collected in NFIRS but Date of Birth is not.

Entry

Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

Example

A casualty was born on February 10, 1937

| D Age or Date of Birth ☆ | |
|--------------------------|---|
| <input type="text"/> | <input type="checkbox"/> Months (for infants) |
| OR | |
| Date of Birth | |
| <input type="text"/> | <input type="text"/> |
| Month | Day |
| <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> |
| Year | |

SECTION E

E2 Race

Definition

The identification of the race of the casualty, based on U.S. Office of Management and Budget (OMB) designations.

Purpose

This entry is useful for the study of diseases and important to data systems in order to obtain certain Federal or State funds that are directed toward specific racial groups.

Entry

Check or mark the appropriate box. If race cannot be determined, check or mark the Undetermined box.

- ☛ Hispanic is not considered a race, because a person can be black and Hispanic, white and Hispanic, etc.

Example

The casualty was an African American (2):

| E ₁ Race | |
|---------------------|--|
| 1 | <input type="checkbox"/> White |
| 2 | <input checked="" type="checkbox"/> Black, African American |
| 3 | <input type="checkbox"/> Am. Indian, Alaska Native |
| 4 | <input type="checkbox"/> Asian |
| 5 | <input type="checkbox"/> Native Hawaiian, Other Pacific Islander |
| 0 | <input type="checkbox"/> Other, multiracial |
| U | <input type="checkbox"/> Undetermined |

The ☆ denotes a required field.

RACE CODES

| | |
|---|--|
| 1 | White. |
| 2 | Black or African American. |
| 3 | American Indian or Alaska Native. |
| 4 | Asian. |
| 5 | Native Hawaiian or other Pacific Islander. |
| 0 | Other. Includes multiracial. |
| U | Undetermined. |

Ethnicity*Definition*

Identifies the ethnicity of the casualty. Ethnicity is an ethnic classification or affiliation. Ethnicity designates a population subgroup having a common cultural heritage, as distinguished by customs, characteristics, language, common history, etc. Currently, Hispanic/Latino is the only OMB designation for ethnicity.

Purpose

This entry permits an analysis of casualties by ethnicity with type, severity, and cause of injury to identify trends and patterns that might be helpful in planning casualty prevention techniques. It is also useful for studies of diseases and important to data systems in order to obtain certain Federal or State funds that are directed toward specific ethnic groups.

Entry

Check or mark the appropriate box.

Example

The casualty was an Hispanic (1):

| | |
|-----------|--|
| E2 | Ethnicity |
| 1 | <input checked="" type="checkbox"/> Hispanic or Latino |
| 0 | <input type="checkbox"/> Non Hispanic or Latino |

ETHNICITY CODES

| | |
|---|-------------------------|
| 1 | Hispanic or Latino. |
| 0 | Non Hispanic or Latino. |

SECTION F

F Affiliation*Definition*

Indicates whether the casualty involved in the incident was an emergency services responder or a civilian.

- ☛ Firefighter casualties are not reported on this module; instead, use the Fire Service Casualty Module (NFIRS-5).

Non-firefighter casualties who may be injured directly by the fire include:

Civilian: Non-emergency services personnel such as occupants, passers-by, and onlookers.

EMS: Emergency EMS personnel who are not members of the fire department.

Police: Persons from law enforcement agencies working at the scene.

Other: Persons working at the scene from other public or private service organizations such as the utility company, other city agencies, the Red Cross, the Salvation Army, etc.

Purpose

This entry identifies the groups suffering casualties. This information, along with data on the cause of the casualty and associated incident, can help target programs for reducing casualties and can be used to measure their success.

Entry

Check or mark the box that best describes the casualty's affiliation.

- ☛ If an injury occurs to EMS fire service personnel, use the Fire Service Casualty Module instead.

Example

A police officer (3) falls and sprains his ankle while helping an occupant leave an apartment building that was on fire:

| F Affiliation | |
|---------------|---|
| 1 | <input type="checkbox"/> Civilian |
| 2 | <input type="checkbox"/> EMS, not fire department |
| 3 | <input checked="" type="checkbox"/> Police |
| 0 | <input type="checkbox"/> Other |

AFFILIATION CODES

| | |
|---|---------------------------|
| 1 | Civilian. |
| 2 | EMS, not fire department. |
| 3 | Police. |
| 0 | Other. |

SECTION G

G Date and Time of Injury**Date***Entry*

Enter the month, day, and year when the injury occurred (mm/dd/yyyy). (See example at Time.)

Time*Definition*

The time of day, using the 24-hour clock, when the injury occurred. Midnight is 0000 and signifies the start of a new day.

Purpose

This information is sometimes needed for legal or insurance purposes. It is most frequently used to analyze the time of day fatalities occur for different types of incidents.

Entry

Enter as closely as possible the time when the injury occurred using the 24-hour clock (i.e., 0000–2359). This could be before or after the alarm time shown on the Basic Module.

Example

A woman burned her hand at 5:25 p.m. on May 2, 2002:

| G Date and Time of Injury | | | | | | Midnight is 0000. | | | | | |
|----------------------------------|-----|------|----------------|--------|---|-------------------|---|---|---|---|---|
| Date of Injury | | | Time of Injury | | | | | | | | |
| 0 | 5 | 0 | 2 | 2 | 0 | 0 | 2 | 1 | 7 | 2 | 5 |
| Month | Day | Year | Hour | Minute | | | | | | | |

SECTION H

H Severity ☆

☛ Severity was known as Case Severity in NFIRS 4.1.

Definition

The relative severity or seriousness of the injury on a scale from “least serious” (minor) to “most serious” (death).

Purpose

The severity of a casualty’s injury is often used as an indicator of the impact of the incident. It can be used as a measure for prevention programs aimed at reducing injuries and deaths.

Entry

Check or mark the box that best describes the severity of the injury.

Example

A second degree burn (2) on the forearm and shoulder:

| H | Severity | ☆ |
|---|--|---|
| 1 | <input type="checkbox"/> Minor | |
| 2 | <input checked="" type="checkbox"/> Moderate | |
| 3 | <input type="checkbox"/> Severe | |
| 4 | <input type="checkbox"/> Life threatening | |
| 5 | <input type="checkbox"/> Death | |
| U | <input type="checkbox"/> Undetermined | |

SEVERITY CODES

- | | |
|---|--|
| 1 | Minor. The patient is not in danger of death or permanent disability. Immediate medical care is not necessary. |
| 2 | Moderate. There is little danger of death or permanent disability. Quick medical care is advisable. This category includes injuries such as fractures or lacerations requiring sutures. |
| 3 | Severe. The situation is potentially life threatening if the condition remains uncontrolled. Immediate medical care is necessary even though body processes may still be functioning and vital signs may be normal. |
| 4 | Life threatening. Death is imminent; body processes and vital signs are not normal. Immediate medical care is necessary. This category includes cases such as severe hemorrhaging, severe multiple trauma, and multiple internal injuries. |
| 5 | Death. |
| U | Undetermined. |

SECTION I

I Cause of Injury

Definition

The physical event that caused the injury.

Purpose

This is another dimension in describing the cause of an injury and how and why the injury occurred. The analysis of this information may further an understanding of the conditions causing the injury and provide a means for planning suitable preventive techniques.

Entry

Check or mark the box that best describes the cause of the injury.

Example

The fire burned (1) the victim's hand:

| Cause of Injury | |
|-----------------|--|
| 1 | <input checked="" type="checkbox"/> Exposed to fire products including flame, heat, smoke, and gas |
| 2 | <input type="checkbox"/> Exposed to toxic fumes other than smoke |
| 3 | <input type="checkbox"/> Jumped in escape attempt |
| 4 | <input type="checkbox"/> Fell, slipped, or tripped |
| 5 | <input type="checkbox"/> Caught or trapped |
| 6 | <input type="checkbox"/> Structural collapse |
| 7 | <input type="checkbox"/> Struck by or contact with object |
| 8 | <input type="checkbox"/> Overexertion or strain |
| 9 | <input type="checkbox"/> Multiple causes |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

CAUSE OF INJURY CODES

- | | |
|---|--|
| 1 | Exposed to fire products, such as flame, heat, smoke, or gas. |
| 2 | Exposed to hazardous materials or toxic fumes other than smoke. |
| 3 | Jumped in escape attempt. |
| 4 | Fell, slipped, or tripped. |
| 5 | Caught or trapped. |
| 6 | Structural collapse. |
| 7 | Struck by or contact with object. Includes assaults by persons or animals. |
| 8 | Overexertion or strain. |
| 9 | Multiple causes. |
| 0 | Cause of injury, other. |
| U | Undetermined. |

SECTION J

J Human Factors Contributing to Injury

☛ Human Factors Contributing to Injury was known as Condition Before Injury in NFIRS 4.1.

Definition

The physical or mental state of the person before becoming a casualty.

Purpose

One purpose for understanding the human factors that contributed to the injury is to design programs that specifically deal with the problems either through education or by reengineering the environment.

Entry

Check or mark all applicable boxes describing the human factors that contributed to this person's injury. If no preexisting human factors contributed to the injury, check or mark the None box.

Example

A disabled man (6) was asleep (1) in a wheelchair when the fire trapped him in the room:

| J Human Factors Contributing to Injury | | <input type="checkbox"/> None |
|---|--|-------------------------------|
| Check all applicable boxes | | |
| 1 | <input checked="" type="checkbox"/> Asleep | |
| 2 | <input type="checkbox"/> Unconscious | |
| 3 | <input type="checkbox"/> Possibly impaired by alcohol | |
| 4 | <input type="checkbox"/> Possibly impaired by other drug | |
| 5 | <input type="checkbox"/> Possibly mentally disabled | |
| 6 | <input checked="" type="checkbox"/> Physically disabled | |
| 7 | <input type="checkbox"/> Physically restrained | |
| 8 | <input type="checkbox"/> Unattended person | |

HUMAN FACTORS CONTRIBUTING TO INJURY CODES

- | | |
|---|---|
| 1 | Asleep, no known impairment. |
| 2 | Unconscious. |
| 3 | Possibly impaired by alcohol. |
| 4 | Possibly impaired by other drug or chemical. |
| 5 | Possibly mentally disabled. |
| 6 | Physically disabled. Includes temporary conditions or overexertion. |
| 7 | Physically restrained. |
| 8 | Unattended or unsupervised person. Includes persons too young/old to act. |
| N | None. |

SECTION K

K Factors Contributing to Injury

Definition

The most significant factors contributing to the injury of the casualty.

Purpose

This additional information on how an injury occurred can help in targeting fire prevention programs and checking the adequacy and enforcement of codes. For example, if many casualties resulted from illegally locked window bars, inspection practices might need to be reviewed.

Entry

Enter the two-digit code and description for up to three factors that best describe the contributions to the injury. If no factors were involved, check or mark the None box.

Example

The casualty was injured because the exits were blocked by fire (21) and his clothing caught fire (35) while he was trying to escape:

| K Factors Contributing to Injury | | <input type="checkbox"/> None |
|---|---|-------------------------------|
| Enter up to three contributing factors | | |
| <input type="text" value="2"/> <input type="text" value="1"/> | <input type="text" value="Exit blocked by fire"/> | |
| Contributing factor (1) | | |
| <input type="text" value="3"/> <input type="text" value="5"/> | <input type="text" value="Clothing caught fire"/> | |
| Contributing factor (2) | | |
| <input type="text"/> | <input type="text"/> | |
| Contributing factor (3) | | |

FACTORS CONTRIBUTING TO INJURY CODES

Egress Problem

- 11 Crowd situation, limited exits.
- 12 Mechanical obstacles to exit. Includes items blocking exit.
- 13 Locked exit or other problem with exit.
- 14 Problem with quick-release burglar or security bar.
- 15 Burglar or security bar, intrusion barrier.
- 16 Window type or size impeded egress.
- 10 Egress problem, other.

Fire Pattern

- 21 Exits blocked by flame.
- 22 Exits blocked by smoke.
- 23 Vision blocked or impaired by smoke.
- 24 Trapped above fire.
- 25 Trapped below fire.
- 20 Fire pattern, other.

Escape

- 31 Unfamiliar with exits.
- 32 Excessive travel distance to nearest clear exit.
- 33 Chose inappropriate exit route.
- 34 Re-entered building.
- 35 Clothing caught fire while escaping. Excludes clothing on a person intimately involved with ignition (91).
- 30 Escape, other.

Collapse

- 40 Collapse, other.
- 41 Roof collapse.
- 42 Wall collapse.
- 43 Floor collapse.

Vehicle-Related Factors

- 51 Trapped in/by vehicle.
- 52 Vehicle collision, rollover.
- 50 Vehicle-related, other.

Equipment-Related Factors

- 61 Unvented heating equipment.
- 62 Improper use of heating equipment.
- 63 Improper use of cooking equipment.
- 60 Equipment-related factors, other.

Other Special Factors

- 91 Clothing burned, not while escaping. Includes clothing on a person intimately involved with ignition. Excludes clothing that caught fire while escaping (35).
- 92 Overexertion.
- 00 Factor contributing to injury, other.
- NN None.

SECTION L

Activity When Injured

Activity When Injured was known as Activity at Time of Injury in NFIRS 4.1.

Definition

The action or activity in which the person was engaged at the time of the injury.

Purpose

This element identifies the situations when people are injured most frequently so that public education programs can be targeted at reducing fire injuries.

Entry

Check or mark the box that best describes the activity of the casualty when injured.

Example

A person was injured while trying to control the fire (3):

| L Activity When Injured | |
|-------------------------|--|
| 1 | <input type="checkbox"/> Escaping |
| 2 | <input type="checkbox"/> Rescue attempt |
| 3 | <input checked="" type="checkbox"/> Fire control |
| 4 | <input type="checkbox"/> Return to fire before control |
| 5 | <input type="checkbox"/> Return to fire after control |
| 6 | <input type="checkbox"/> Sleeping |
| 7 | <input type="checkbox"/> Unable to act |
| 8 | <input type="checkbox"/> Irrational act |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

ACTIVITY WHEN INJURED CODES

- 1 Escaping.
- 2 Rescue attempt.
- 3 Fire control.
- 4 Returning to vicinity of fire before control of fire. Excludes rescue attempt (2).
- 5 Returning to vicinity of fire after control of fire. Includes cleanup and salvage.
- 6 Sleeping.
- 7 Unable to act.
- 8 Irrational act.
- 0 Activity, other.
- U Undetermined.

SECTION M

This section captures the relationship between the location of a casualty at the time of the incident, location of the origin of the fire, and whether the casualty was intimately involved with the ignition of the fire.

M1 Location at Time of Incident*Definition*

The location of the casualty in relationship to the area of fire origin at the time the fire started.

Purpose

This element provides specific information on how the injury occurred. This can be helpful in directing public education efforts and injury prevention.

Entry

Check or mark the box that best describes the location of the casualty in relation to the area of fire origin and whether the casualty was involved with the ignition at the time the fire started.

Example

The casualty was in the area of the fire origin and was not involved in the ignition of the fire (1):

| M1 Location at Time of Incident | |
|--|--|
| 1 | <input checked="" type="checkbox"/> In area of origin and not involved |
| 2 | <input type="checkbox"/> Not in area of origin and not involved |
| 3 | <input type="checkbox"/> Not in area of origin, but involved |
| 4 | <input type="checkbox"/> In area of origin and involved |
| 0 | <input type="checkbox"/> Other location |
| U | <input type="checkbox"/> Undetermined |

LOCATION AT TIME OF INCIDENT CODES

- 1 In area of origin and not involved in starting the fire.
- 2 Not in area of origin and not involved in starting the fire.
- 3 Not in area of origin, but involved in starting the fire.
- 4 In area of ignition and involved in starting the fire.
- 0 Other location.
- U Undetermined.

M2 General Location at Time of Injury*Definition*

The general location of the casualty in relationship to the area of fire origin at the time the injury was sustained.

Purpose

This element provides more information on how the injury occurred and the relationship of the ignition to the casualty location at time of injury and at the time of ignition.

Entry

Check or mark the box that best describes the casualty's general location at the time of injury. If Code "1" or "U" is marked, skip to Section N. If Code "3" is marked, skip to Block M5. If the general location is undetermined, leave this block blank and skip to Section N.

Example

The casualty was in the building, but not in the area of origin (2):

| M2 | | General Location at Time of Injury | |
|-----------|-------------------------------------|---|--------------------|
| 1 | <input type="checkbox"/> | In area of fire origin | Skip to Section N |
| 2 | <input checked="" type="checkbox"/> | In building, but not in area | |
| 3 | <input type="checkbox"/> | Outside, but not in area | Skip to Section M5 |
| U | <input type="checkbox"/> | Undetermined | |

GENERAL LOCATION AT TIME OF INJURY CODES

- 1 In area of fire origin, whether that is inside or outside a building.
- 2 In building of origin, but not in area of origin.
- 3 Outside, but not in area of origin.
- U Undetermined.

M3 Story at Start of Incident*Definition*

Identifies the story where the casualty was located at the start of the incident.

Purpose

Providing information on the physical separation between the person injured and the area of origin at the start of the fire can be helpful in assessing the adequacy of exits.

Entry

If the injury occurred inside a structure, enter the story where the casualty was located at the start of the incident. If the story is below grade, check or mark the Below Grade box.

- ☛ For split grades, consider the main egress point as the first story.
- ☛ Checking or marking the Below Grade box has the effect of entering a negative number in NFIRS 5.0.

Example

The casualty was on the fifth story at the start of the incident:

| |
|--|
| <p>M3 Story at Start of Incident Complete ONLY if injury occurred INSIDE Story at start of incident <input type="text" value="5"/> <input type="checkbox"/> Below grade</p> |
|--|

M4 Story Where Injury Occurred*Definition*

Identifies the story where the casualty was located when the injury occurred.

Purpose

This element provides more information on how far the casualty was from the area of origin when the injury occurred. This can be helpful in assessing the adequacy of detection, alarm, and exit systems as well as assisting in code enforcement.

Entry

If the injury occurred in a structure and the person was on a story different from that in Block M3, enter the story where the injury occurred. If the story is below grade, check or mark the Below Grade box.

Example

The injury occurred on the third story:

| |
|---|
| <p>M4 Story Where Injury Occurred Story where injury occurred, if different from M3 <input type="text" value="3"/> <input type="checkbox"/> Below grade</p> |
|---|

M5 Specific Location at Time of Injury

☛ Specific Location at Time of Injury was known as Area of Fire Origin in NFIRS 4.1.

Definition

Identifies the specific location of the casualty at the time of the injury.

Purpose

This element provides more information on how the injury occurred.

Entry

If the injury did not occur in the area of fire origin, enter the two-digit code and description that best describes the specific location or area where the casualty was located when injured.

Example

The casualty occurred in the maintenance shop of the factory (65):

| | |
|---|--|
| M5 | Specific Location at Time of Injury |
| Complete ONLY if casualty NOT in area of origin | |
| 65 | Maintenance Shop |
| Specific location at time of injury | |

☛ An alphabetized synonym list for Specific Location at Time of Injury Codes is presented in Appendix B.

SPECIFIC LOCATION AT TIME OF INJURY CODES

Means of Egress

- 01 Hallway corridor, mall.
- 02 Exterior stairway. Includes fire escapes, exterior ramps.
- 03 Interior stairway or ramp. Includes interior ramps.
- 04 Escalator: exterior, interior.
- 05 Entranceway, lobby.
- 09 Egress/Exit, other.

Assembly or Sales Areas (Groups of People)

- 11 Arena, assembly area with fixed seats for 100 or more people. Includes auditoriums, chapels, places of worship, classrooms, lecture halls, arenas, theaters.
- 12 Assembly area without fixed seats for 100 or more people. Includes ballrooms, bowling alleys, gymnasiums, multiuse areas, roller or ice skating rinks.
- 13 Assembly area without fixed seats for less than 100 people. Includes meeting rooms, classrooms, multiuse areas.
- 14 Common room, den, family room, living room, lounge, music room, recreation room, sitting room.
- 15 Sales area, showroom. Excludes display windows (56).
- 16 Art gallery, exhibit hall, library.
- 17 Swimming pool.
- 10 Assembly or sales areas, other.

Function Areas

- 21 Bedroom for less than five people. Includes jail or prison cells, lockups, patient rooms, sleeping areas.
- 22 Bedroom for more than five people. Includes barracks, dormitories, patient wards.
- 23 Bar area, beverage service area, cafeteria, canteen area, dining room, lunchroom, mess hall.
- 24 Cooking area, kitchen.
- 25 Bathroom, checkroom, lavatory, locker room, powder room, outhouse, portable toilet, sauna area.
- 26 Laundry area, wash house (laundry).
- 27 Office.
- 28 Personal service area. Includes barber/beauty salon area, exercise/health club, massage area.
- 20 Function areas, other.

Technical Processing Areas

- 31 Laboratory.
- 32 Dark room, photography area, printing area.
- 33 Treatment: first-aid area, surgery area (minor procedures).
- 34 Surgery area: major operations, operating room or theater, recovery room.
- 35 Computer room, control room or center, data processing center, electronic equipment area, telephone booth or area, radar room.
- 36 Stage area: performance, basketball court, boxing ring, dressing room (backstage), ice rink.
- 37 Projection room, spotlight area, stage light area.
- 38 Processing/Manufacturing area, workroom, assembly area.
- 30 Technical processing areas, other.

Storage Areas

- 41 Storage room, area, tank, bin. Includes all areas where products are held awaiting process, shipment, use, sale.
- 42 Closet.
- 43 Storage: supplies or tools. Includes dead storage, maintenance supply room, tool room, basement (unfinished).
- 44 Records storage room, storage vault.
- 45 Shipping/Receiving area: loading area, dock or bay, mail room, packing area.
- 46 Chute/Container: trash, rubbish, waste. Includes compactor and garbage areas. Excludes incinerators (64).
- 47 Vehicle storage area: garage, carport.
- 40 Storage areas, other.

Service Areas

- 51 Dumbwaiter or elevator shaft.
- 52 Conduit, pipe, utility, or ventilation shaft.
- 53 Light shaft.
- 54 Chute. Includes laundry or mail chutes. Excludes trash chutes (46).
- 55 Duct. Includes HVAC, cable, exhaust.
- 56 Display window.
- 58 Conveyor.
- 50 Service areas, other.

Service or Equipment Areas

- 61 Machinery room or area. Includes elevator machinery room, engine room, head house, pump room, refrigeration room.
- 62 Heating room or area, water heater area.
- 63 Switchgear area, transformer vault.
- 64 Incinerator area.
- 65 Maintenance shop or area. Includes paint shop, repair shop, welding area, workshop.
- 66 Cell, test.

- 67 Enclosure, pressurized air.
- 68 Enclosure with enriched oxygen atmosphere.
- 60 Service or equipment areas, other.

Structural Areas

- 71 Substructure area or space, crawl space.
- 72 Exterior balcony, unenclosed porch. Excludes enclosed porches (93).
- 73 Ceiling and floor assembly, crawl space between stories.
- 74 Attic: vacant, crawl space above top story. Includes cupola, concealed roof/ceiling space, steeple.
- 75 Wall assembly, concealed wall space.
- 76 Wall surface, exterior.
- 77 Roof surface, exterior.
- 78 Awning.
- 70 Structural areas, other.

Transportation, Vehicle Areas

- 81 Operator/Passenger area of transportation equipment.
- 82 Cargo/Trunk area—all vehicles.
- 83 Engine area, running gear, wheel area.
- 84 Fuel tank, fuel line.
- 85 Separate operator/control area of transportation equipment. Includes bridges of ships, cockpit of planes. Excludes automobiles, trucks, buses (81).
- 86 Exterior, exposed surface.
- 80 Vehicle areas, other.

Outside Areas

- 91 Railroad right-of-way: on or near.
- 92 Highway, parking lot, street: on or near.
- 93 Courtyard, patio, terrace. Includes screened-in porches. Excludes unenclosed porches (72).
- 94 Open area, outside. Includes farmland, fields, lawns, parks, vacant lots.
- 95 Wildland, woods.
- 96 Construction/Renovation area.
- 97 Multiple areas.
- 98 Vacant structural area.
- 90 Outside areas, other.

Other Specific Area of Fire Origin

- 00 Specific area of fire origin, other.
- UU Undetermined.

SECTION N

N Primary Apparent Symptom

Definition

The casualty's most serious apparent injury.

Purpose

Knowing the types of injuries caused by fire incidents allows analyses of the frequency and nature of injuries at different types of fires. This aids in creating correct and effective public prevention messages and in determining and improving the emergency responders' equipment and training.

Entry

Seven of the most common symptoms are listed on the paper form. Check or mark the box that best describes the casualty's most apparent serious injury. If the symptom is not listed on the paper form, enter the two-digit code and description that best describes the primary apparent symptom.

Example

The casualty received a cut (21) to the forearm:

| N Primary Apparent Symptom | |
|----------------------------|---|
| 01 | <input type="checkbox"/> Smoke only, asphyxiation |
| 11 | <input type="checkbox"/> Burns and smoke inhalation |
| 12 | <input type="checkbox"/> Burns only |
| 21 | <input checked="" type="checkbox"/> Cut, laceration |
| 33 | <input type="checkbox"/> Strain or sprain |
| 96 | <input type="checkbox"/> Shock |
| 98 | <input type="checkbox"/> Pain only |

Look up a code only if the symptom is NOT found above

| | |
|--|--|
| | |
|--|--|

Primary apparent symptom

PRIMARY APPARENT SYMPTOM CODES

| | |
|----|--|
| 01 | Smoke inhalation. |
| 02 | Hazardous fumes inhalation. |
| 03 | Breathing difficulty or shortness of breath. |
| 11 | Burns and smoke inhalation. |
| 12 | Burns only, thermal. |
| 13 | Burn, scald. |
| 14 | Burn, chemical. |
| 15 | Burn, electric. |
| 21 | Cut or laceration. |
| 22 | Stab or puncture wound: penetrating. |
| 23 | Gunshot wound, projectile wound. |
| 24 | Contusion/Bruise, minor trauma. |
| 25 | Abrasion. |
| 31 | Dislocation. |
| 32 | Fracture. |
| 33 | Strain or sprain. |
| 34 | Swelling. |
| 35 | Crushing. |
| 36 | Amputation. |
| 41 | Cardiac symptoms. |
| 42 | Cardiac arrest. |
| 43 | Stroke. |
| 44 | Respiratory arrest. |
| 51 | Chills. |
| 52 | Fever. |
| 53 | Nausea. |

| | |
|----|--|
| 54 | Vomiting. |
| 55 | Numbness or tingling, paresthesia. |
| 56 | Paralysis. |
| 57 | Frostbite. |
| 50 | Sickness, other. |
| 61 | Miscarriage. |
| 63 | Eye trauma, avulsion. |
| 64 | Drowning. |
| 65 | Foreign body obstruction. |
| 66 | Electric shock. |
| 67 | Poison. |
| 71 | Convulsion or seizure. |
| 72 | Internal trauma. |
| 73 | Hemorrhaging, bleeding internally. |
| 81 | Disorientation. |
| 82 | Dizziness/Fainting/Weakness. |
| 83 | Exhaustion/Fatigue. Includes heat exhaustion. |
| 84 | Heat stroke. |
| 85 | Dehydration. |
| 91 | Allergic reaction. Includes anaphylactic shock and hypersensitivity to medication. |
| 92 | Drug overdose. |
| 93 | Alcohol impairment. |
| 94 | Emotional/Psychological stress. |
| 95 | Mental disorder. |
| 96 | Shock. |
| 97 | Unconscious. |
| 98 | Pain only. |
| 00 | Primary apparent symptom, other. |
| UU | Undetermined. |

SECTION O

O Primary Area of Body Injured*Definition*

The part of the body that sustained the most serious injury.

Purpose

An analysis of the data from Sections L, N, and O will assist in planning for the emergency treatment of injuries and for injury prevention.

Entry

Check or mark the box that best describes the area of the body that was most seriously injured. It should be the same part of the body affected by the Primary Apparent Symptom (Section N).

Example

The casualty's shoulder (2) was dislocated while escaping the burning building:

| ○ Primary Area of Body Injured | |
|--------------------------------|---|
| 1 | <input type="checkbox"/> Head |
| 2 | <input checked="" type="checkbox"/> Neck and shoulder |
| 3 | <input type="checkbox"/> Thorax |
| 4 | <input type="checkbox"/> Abdomen |
| 5 | <input type="checkbox"/> Spine |
| 6 | <input type="checkbox"/> Upper extremities |
| 7 | <input type="checkbox"/> Lower extremities |
| 8 | <input type="checkbox"/> Internal |
| 9 | <input type="checkbox"/> Multiple body parts |

PRIMARY AREA OF BODY INJURED CODES

- | | |
|---|--|
| 1 | Head. |
| 2 | Neck or shoulder. |
| 3 | Thorax. Includes chest and back. Excludes spine (5). |
| 4 | Abdomen. |
| 5 | Spine. Excludes back (3). |
| 6 | Upper extremities. Includes arms and hands. |
| 7 | Lower extremities. Includes legs and feet. |
| 8 | Internal. |
| 9 | Multiple body parts. |

SECTION P**P Disposition***Definition*

Stipulates whether the casualty was taken to an emergency care facility.

Purpose

This information assists in determining the personnel and equipment requirements for handling civilian fire casualties.

Entry

Check or mark the box if the casualty was transported to an emergency care facility by the fire department, other emergency medical service provider, or any other means.

Example

The patient was transported to the hospital by the fire department:

| |
|---|
| P Disposition |
| <input checked="" type="checkbox"/> Transported to emergency care facility |

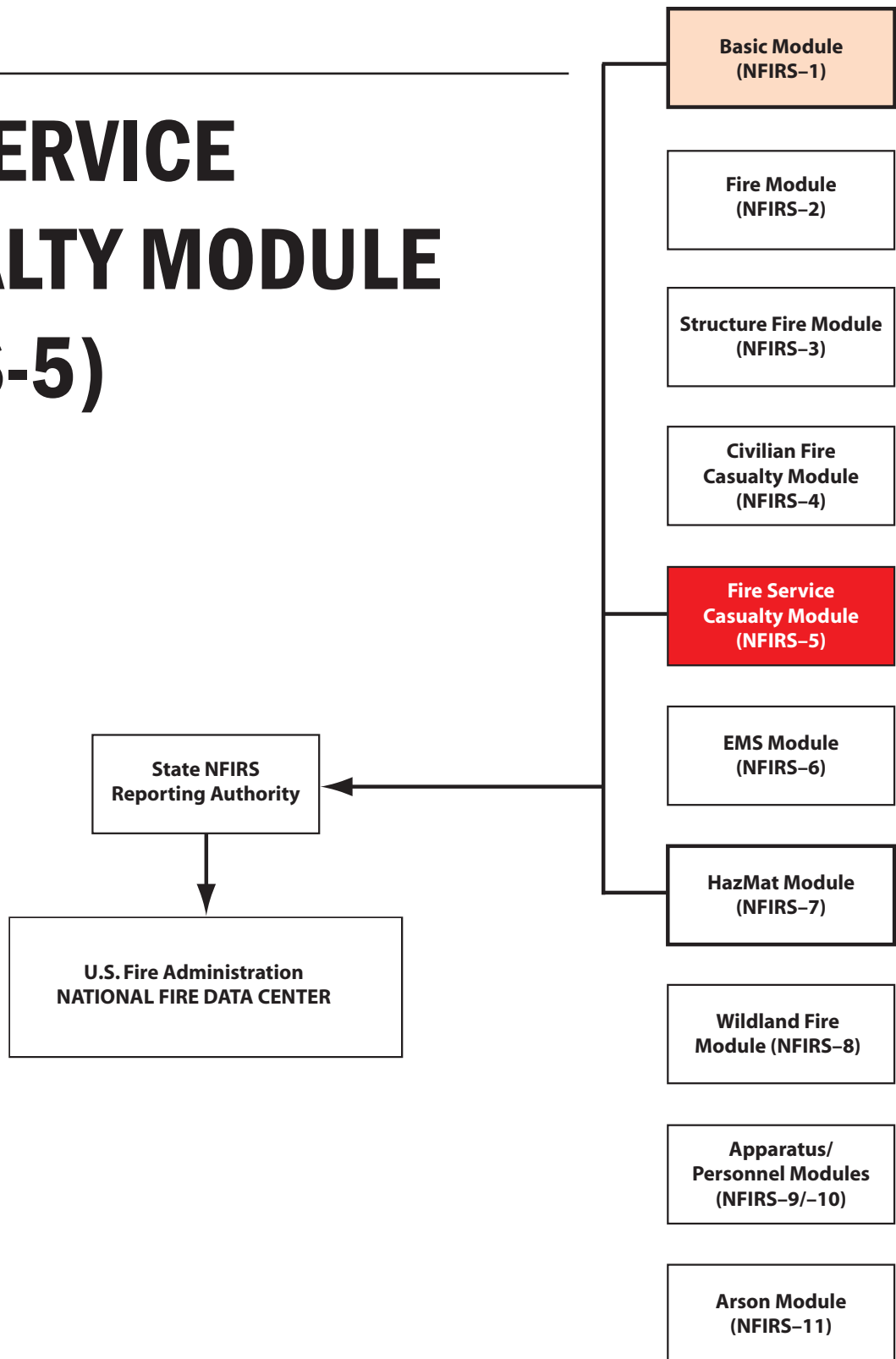
Remarks

The Remarks section is an area for any other remarks that might be made concerning the incident. A narrative description of the incident may be written in this block.

| | |
|----------------|--------------|
| Remarks | Local option |
| _____ | |
| _____ | |
| _____ | |
| _____ | |
| _____ | |

Chapter 7

FIRE SERVICE CASUALTY MODULE (NFIRS-5)



**NFIRS-5
Fire Service
Casualty**

A FDID Delete Change
 State Incident Date Station Incident Number Exposure

B Injured Person Identification Number Male Female Career Volunteer
 First Name MI Last Name Suffix

C Casualty Number
 Casualty Number

D Age or Date of Birth OR
 Age In years OR Date of Birth Month Day Year

E Date and Time of Injury Midnight is 0000.
 Date of Injury Month Day Year Time of Injury Hour Minute

F Responses
 Number of prior responses during past 24 hours

G1 Usual Assignment
 1 Suppression
 2 EMS
 3 Prevention
 4 Training
 5 Maintenance
 6 Communications
 7 Administration
 8 Fire investigation
 0 Other

G2 Physical Condition Just Prior to Injury
 1 Rested 0 Other
 2 Fatigued U Undetermined
 4 Ill or injured
G3 Severity
 1 Report only, including exposure
 2 First aid only
 3 Treated by physician (no lost time)
 4 Moderate (lost time)
 5 Severe (lost time)
 6 Life threatening (lost time)
 7 Death

G4 Taken To Not transported
 1 Hospital
 4 Doctor's office
 5 Morgue/Funeral home
 6 Residence
 7 Station or quarters
 0 Other
G5 Activity at Time of Injury
 Activity at time of injury

H1 Primary Apparent Symptom
 Primary apparent symptom
H2 Primary Part of Body Injured None
 Primary injured body part

I1 Cause of Firefighter Injury
 Cause of injury
I2 Factor Contributing to Injury None
 Contributing factor

I3 Object Involved in Injury None
 Object involved in injury

J1 Where Injury Occurred
 1 En route to FD location
 2 At FD location
 3 En route to incident scene
 4 En route to medical facility
 5 At scene in structure
 6 At scene outside
 7 At medical facility
 8 Returning from incident
 9 Returning from med facility
 0 Other
 U Undetermined
J2 Story Where Injury Occurred
 1 Check this box and enter the story if the injury occurred inside or on a structure
 Story of injury Below grade
 2 Injury occurred outside

J3 Specific Location Where Injury Occurred
 65 In aircraft
 64 In boat, ship, or barge
 63 In rail vehicle
 61 In motor vehicle
 54 In sewer
 53 In tunnel
 49 In structure
 45 In attic 00 Other
 36 In water UU Undetermined
 35 In well
 34 In ravine
 33 In quarry or mine
 32 In ditch or trench
 31 In open pit
 28 On steep grade
 27 On fire escape/outside stairs
 26 On vertical surface or ledge
 25 On ground ladder
 24 On aerial ladder or in basket
 23 On roof
 22 Outside at grade

J4 Vehicle Type
 1 Suppression vehicle
 2 EMS vehicle
 3 Other FD vehicle
 4 Non-FD vehicle
 Complete ONLY if Specific Location code is >60
 Remarks
 If protective equipment failed and was a factor in this injury, please complete the other side of this form.
 NFIRS-5 Revision 01/01/05

| | | | |
|---|---|------------------------------------|--|
| K1 Did protective equipment fail and contribute to the injury? Please complete the remainder of this form ONLY if you answer YES. | Yes Y <input type="checkbox"/> No N <input type="checkbox"/> | Equipment Sequence Number _____ | NFIRS-5 Fire Service Casualty |
|---|---|------------------------------------|--|

| | |
|--|--|
| K2 Protective Equipment Item Head or Face Protection 11 <input type="checkbox"/> Helmet 12 <input type="checkbox"/> Full face protector 13 <input type="checkbox"/> Partial face protector 14 <input type="checkbox"/> Goggles/eye protection 15 <input type="checkbox"/> Hood 16 <input type="checkbox"/> Ear protector 17 <input type="checkbox"/> Neck protector 10 <input type="checkbox"/> Other | Coat, Shirt, or Trousers 21 <input type="checkbox"/> Protective coat 22 <input type="checkbox"/> Protective trousers 23 <input type="checkbox"/> Uniform shirt 24 <input type="checkbox"/> Uniform T-shirt 25 <input type="checkbox"/> Uniform trousers 26 <input type="checkbox"/> Uniform coat or jacket 27 <input type="checkbox"/> Coveralls 28 <input type="checkbox"/> Apron or gown 20 <input type="checkbox"/> Other |
|--|--|

| |
|---|
| Boots or Shoes 31 <input type="checkbox"/> Knee length boots with steel baseplate and steel toes 32 <input type="checkbox"/> Knee length boots with steel toes only 33 <input type="checkbox"/> 3/4 length boots with steel baseplate and steel toes 34 <input type="checkbox"/> 3/4 length boots with steel toes only 35 <input type="checkbox"/> Boots without steel baseplate and steel toes 36 <input type="checkbox"/> Safety shoes with steel baseplate and steel toes 37 <input type="checkbox"/> Safety shoes with steel toes only 38 <input type="checkbox"/> Non-safety shoes 30 <input type="checkbox"/> Other |
|---|

| |
|---|
| Respiratory Protection 41 <input type="checkbox"/> SCBA (demand) open circuit 42 <input type="checkbox"/> SCBA (positive pressure) open circuit 43 <input type="checkbox"/> SCBA closed circuit 44 <input type="checkbox"/> Not self-contained 45 <input type="checkbox"/> Cartridge respirator 46 <input type="checkbox"/> Dust or particle mask 40 <input type="checkbox"/> Other |
|---|

| |
|--|
| Hand Protection 51 <input type="checkbox"/> Firefighter gloves with wristlets 52 <input type="checkbox"/> Firefighter gloves without wristlets 53 <input type="checkbox"/> Work gloves 54 <input type="checkbox"/> HazMat gloves 55 <input type="checkbox"/> Medical gloves 50 <input type="checkbox"/> Other |
|--|

| |
|---|
| Special Equipment 61 <input type="checkbox"/> Proximity suit for entry 62 <input type="checkbox"/> Proximity suit for non-entry 63 <input type="checkbox"/> Totally encapsulated, reusable chemical suit 64 <input type="checkbox"/> Totally encapsulated, disposable chemical suit 65 <input type="checkbox"/> Partially encapsulated, reusable chemical suit 66 <input type="checkbox"/> Partially encapsulated, disposable chemical suit 67 <input type="checkbox"/> Flash protection suit 68 <input type="checkbox"/> Flight or jump suit 69 <input type="checkbox"/> Brush suit 71 <input type="checkbox"/> Exposure suit 72 <input type="checkbox"/> Self-contained underwater breathing apparatus (SCUBA) 73 <input type="checkbox"/> Life preserver 74 <input type="checkbox"/> Life belt or ladder belt 75 <input type="checkbox"/> Personal alert safety system (PASS) 76 <input type="checkbox"/> Radio distress device 77 <input type="checkbox"/> Personal lighting 78 <input type="checkbox"/> Fire shelter or tent 79 <input type="checkbox"/> Vehicle safety belt 70 <input type="checkbox"/> Special equipment, other 00 <input type="checkbox"/> Protective equipment, other |
|---|

Was the failure of more than one item of protective equipment a factor in the injury? If so, complete an additional page of this form for each piece of failed equipment.

| |
|--|
| K3 Protective Equipment Problem Check one box to indicate the main problem that occurred. 11 <input type="checkbox"/> Burned 12 <input type="checkbox"/> Melted 21 <input type="checkbox"/> Fractured, cracked or broken 22 <input type="checkbox"/> Punctured 23 <input type="checkbox"/> Scratched 24 <input type="checkbox"/> Knocked off 25 <input type="checkbox"/> Cut or ripped 31 <input type="checkbox"/> Trapped steam or hazardous gas 32 <input type="checkbox"/> Insufficient insulation 33 <input type="checkbox"/> Object fell in or onto equipment item 41 <input type="checkbox"/> Failed under impact 42 <input type="checkbox"/> Face piece or hose detached 43 <input type="checkbox"/> Exhalation valve inoperative or damaged 44 <input type="checkbox"/> Harness detached or separated 45 <input type="checkbox"/> Regulator failed to operate 46 <input type="checkbox"/> Regulator damaged by contact 47 <input type="checkbox"/> Problem with admissions valve 48 <input type="checkbox"/> Alarm failed to operate 49 <input type="checkbox"/> Alarm damaged by contact 51 <input type="checkbox"/> Supply cylinder or valve failed to operate 52 <input type="checkbox"/> Supply cylinder/valve damaged by contact 53 <input type="checkbox"/> Supply cylinder—insufficient air/oxygen 94 <input type="checkbox"/> Did not fit properly 95 <input type="checkbox"/> Not properly serviced or stored prior to use 96 <input type="checkbox"/> Not used for designed purpose 97 <input type="checkbox"/> Not used as recommended by manufacturer 00 <input type="checkbox"/> Other equipment problem UU <input type="checkbox"/> Undetermined |
|--|

| |
|---|
| K4 Equipment Manufacturer, Model and Serial Number _____ <small>Manufacturer</small> _____ <small>Model</small> _____ <small>Serial Number</small> |
|---|

CHAPTER 7 • FIRE SERVICE CASUALTY MODULE (NFIRS-5)

The Fire Service Casualty Module is used to report all injuries, deaths, or exposures to fire service personnel. This includes casualties that occur in conjunction both with incident responses and with non-incident events such as station duties or training.

- **Important:** In the event of a non-incident casualty, it is critical that an EMS incident report is created in the system and that it is treated as if the same department with the injury responded to the EMS.

A *health exposure* occurs when fire service personnel come in contact with a toxic substance or harmful physical agent through any route of entry into the body (e.g., inhalation, ingestion, skin absorption, direct contact). These exposures can be reported regardless of the presence of clinical signs and symptoms. An *exposure fire*, which is captured in Section A of the Basic Module, is not the same as a health exposure to personnel.

A separate Fire Service Casualty Module is required for each casualty or health exposure.

SECTION A

The guidance and directions for completing Section A of the Fire Service Casualty Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Fire Service Casualty Module must be identical with the entries on the corresponding Basic Module. If injuries occur in an exposure fire, the casualty report should have the same entries as those from Section A of the Basic Module for that exposure fire. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

The ☆ denotes a required field.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If the casualty resulted from an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous Fire Service Casualty Module or a deletion of all information regarding the casualty.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this fire service casualty and now want to have the data on this casualty deleted from the database. If this box is marked, complete Section A, the Casualty Number originally assigned (Section C), and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Injured Person ☆

Name

Definition

The first name, middle initial, and last name that identifies the fire service casualty.

Purpose

The name of the casualty may be required for legal or insurance purposes, filing disability claims, and tracking injuries and health exposures by the individual fire department

Entry

Enter the full name of the person. Names should be clearly printed or typed.

Example

The casualty's name is Jeff R. MacFadyen. (See example at Affiliation.)

Identification Number

Definition

The identification or employee number of the fire service casualty. This number is often the individual's social security number, but it may be any combination of letters or numbers up to nine characters in length.

Purpose

The identification number uniquely identifies each fire service casualty.

Entry

Enter the casualty's identification number in the spaces provided. This field is left-justified.

Example

The firefighter's identification number is A23-4556-6789. (See example at Affiliation).

Gender ☆

Definition

The identification of the fire service casualty as male or female.

Purpose

Combined with other field information, this data element assists in the identification of each firefighter injury.

Entry

Check or mark the appropriate gender of the fire service casualty.

Example

The firefighter is male (1). (See example at Affiliation.)

GENDER CODES

- | | |
|---|---------|
| 1 | Male. |
| 2 | Female. |

Affiliation

Definition

The identification of the fire service casualty as a volunteer (includes paid on-call) or career firefighter at the time of injury.

Purpose

This data element contributes to the identification of the fire service casualty and helps track injury trends and patterns of volunteer vs. career personnel.

Entry

Check or mark the box that best describes the affiliation of the fire service casualty.

Example

The casualty is a volunteer firefighter (2):

| | | | | | | |
|------------|-----------------------|---|-----------|--|--|---|
| B | Injured Person | [A 2 3 4 5 6 7 8 9] | | | 1 <input checked="" type="checkbox"/> Male ☆ | 1 <input type="checkbox"/> Career |
| | | Identification Number | | | 2 <input type="checkbox"/> Female | 2 <input checked="" type="checkbox"/> Volunteer |
| Jeff | | R | MacFadyen | | | |
| First Name | | MI | Last Name | | Suffix | |

AFFILIATION CODES

- 1 Career.
- 2 Volunteer. Includes paid on-call firefighter.

SECTION C

C Casualty Number ☆

Definition

A unique number is assigned to each fire service casualty occurring at a single incident or resulting from an incident.

Purpose

The casualty number of the firefighter identifies each fire service casualty separately in the casualty file. Data and information concerning the casualty can be accessed using this number in conjunction with other unique field information.

Entry

Enter the firefighter casualty number assigned to this casualty. A separate Casualty Number is assigned to each fire service casualty. The first casualty is always coded “001,” and each succeeding casualty is numbered sequentially and incremented by 1 beginning with “002.” The three-character numeric field is zero filled, not right justified.

Example

Three firefighters were injured at a warehouse fire on 32nd street; the first firefighter injured is assigned the casualty number of 001:

Example on next page

| | |
|-----------------|--------------------------|
| C | Casualty Number ☆ |
| 0 0 1 | |
| Casualty Number | |

SECTION D

D Age or Date of Birth ☆

Enter either the fire service casualty's age or the casualty's date of birth. Do not enter both.

Age ☆*Definition*

The fire service casualty's age in years.

Purpose

The age of the fire service casualty provides an indication of fire loss. Age can also be used to indicate type, severity, and cause of injury to identify trends and patterns that might be helpful in preventing future fire-fighter injuries and deaths.

Entry

Enter the age of the firefighter.

Example

The injured firefighter is 39 years old:

| | |
|------------|-------------------------------|
| D | Age or Date of Birth ☆ |
| Age | Date of Birth |
| 3 9 | |
| In years | Month Day Year |

Date of Birth ☆*Definition*

The month, day, and year of birth of the fire service casualty.

Purpose

This data element is an alternative entry for Age. It can provide an indication of fire loss, and can be used to indicate type, severity, and cause of injury to identify trends and patterns that might be helpful in preventing future firefighter injuries and deaths.

- ☛ This data element is used as an alternate method for calculating the casualty's age. Age is collected in NFIRS but Date of Birth is not.

Entry

Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

Example

The fire service casualty was born on August 5, 1959:

| | | | | | | | | | | | | | | | |
|--|---|------|----------|-----------|---|---|---------------|--|---|---|---|-------|-------|------|------|
| D Age or Date of Birth ☆ | | | | | | | | | | | | | | | |
| <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 5px;"> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 2px;">Age</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 60px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">In years</td> </tr> </table> </td> <td style="text-align: center; vertical-align: middle; padding: 0 10px;">OR</td> <td style="text-align: center; padding: 5px;"> <table style="width: 100%; border: none;"> <tr> <td colspan="3" style="text-align: center; padding: 2px;">Date of Birth</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">0</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">8</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">Month</td> <td style="text-align: center; padding: 2px;">Day</td> <td style="text-align: center; padding: 2px;">Year</td> </tr> </table> </td> </tr> </table> | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 2px;">Age</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 60px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">In years</td> </tr> </table> | Age | | In years | OR | <table style="width: 100%; border: none;"> <tr> <td colspan="3" style="text-align: center; padding: 2px;">Date of Birth</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">0</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">8</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">Month</td> <td style="text-align: center; padding: 2px;">Day</td> <td style="text-align: center; padding: 2px;">Year</td> </tr> </table> | Date of Birth | | | 0 | 8 | | Month | Day | Year |
| <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 2px;">Age</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 60px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">In years</td> </tr> </table> | Age | | In years | OR | <table style="width: 100%; border: none;"> <tr> <td colspan="3" style="text-align: center; padding: 2px;">Date of Birth</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">0</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;">8</td> <td style="text-align: center; border-bottom: 1px solid black; width: 20px;"> </td> </tr> <tr> <td style="text-align: center; padding: 2px;">Month</td> <td style="text-align: center; padding: 2px;">Day</td> <td style="text-align: center; padding: 2px;">Year</td> </tr> </table> | Date of Birth | | | 0 | 8 | | Month | Day | Year | |
| Age | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| In years | | | | | | | | | | | | | | | |
| Date of Birth | | | | | | | | | | | | | | | |
| 0 | 8 | | | | | | | | | | | | | | |
| Month | Day | Year | | | | | | | | | | | | | |

SECTION E

E Date and Time of Injury ☆

Date ☆

Entry

If the injury date is the same as the Incident Date in Section A, enter the same date as the Alarm date entry in Block E1 of the Basic Module. If different, enter the appropriate month, day, and year (mm/dd/yyyy). (See example at Time.)

Time ☆

Definition

The time of day, using the 24-hour clock, when the injury occurred. Midnight is 0000 and signifies the start of a new day.

Purpose

This information is sometimes needed for legal or insurance purposes. In addition, it may be used to analyze when firefighter injuries occur during the course of a fire and during fire suppression activities.

Entry

Enter as closely as possible the time when the injury occurred using the 24-hour clock (i.e., 0000–2359).

Example

A firefighter received a burn on his back and hip at 5:36 a.m. on July 26, 2001:

Example on next page

| E Date and Time of Injury ☆ Midnight is 0000. | | | | | |
|---|-----|------|----------------|--------|---|
| Date of Injury | | | Time of Injury | | |
| 0 | 7 | 2 | 6 | 2 | 0 |
| Month | Day | Year | Hour | Minute | |

SECTION F

F Responses

Definition

The number of incidents the firefighter responded to in the 24-hour period prior to the time of injury.

Purpose

The number of incidences that a firefighter responds to in a short period of time, when analyzed with the other casualty data, can be a useful indicator for identifying possible reasons for the injury or death. This is useful in determining cases of fatigue and cumulative exposure to heat and gases, which may have contributed to the injury.

Entry

Enter the number of incidents responded to by the firefighter in the immediate 24-hour period prior to the time of injury. Do not count the incident at which the injury occurred.

Example

The fire service casualty had been on three other calls prior to the injury.

| F Responses |
|--|
| 3 |
| Number of prior responses during past 24 hours |

SECTION G

This section collects information pertaining to the injured firefighter's assignment, physical condition before the injury, the severity of the injury, where the injury was treated, and the activity being performed when injured.

G¹ Usual Assignment

☛ Usual Assignment was known as Assignment in NFIRS 4.1.

Definition

This element describes the official assignment of the fire service casualty. This may not coincide with the firefighter's activity at the time of injury (Block G5).

Purpose

When analyzed with the other firefighter casualty data, the duty to which the firefighter was assigned can be used to identify possible reasons for injury or death.

Entry

Check or mark the box that best describes the primary duty assignment of the injured firefighter.

Example

The injured firefighter is normally assigned to the training division (4):

| G ₁ Usual Assignment | |
|---------------------------------|--|
| 1 | <input type="checkbox"/> Suppression |
| 2 | <input type="checkbox"/> EMS |
| 3 | <input type="checkbox"/> Prevention |
| 4 | <input checked="" type="checkbox"/> Training |
| 5 | <input type="checkbox"/> Maintenance |
| 6 | <input type="checkbox"/> Communications |
| 7 | <input type="checkbox"/> Administration |
| 8 | <input type="checkbox"/> Fire investigation |
| 0 | <input type="checkbox"/> Other |

USUAL ASSIGNMENT CODES

| | |
|---|--|
| 1 | Fire suppression. Includes HazMat, rescue, incident command, and safety. |
| 2 | EMS. |
| 3 | Prevention or inspection. |
| 4 | Training. |
| 5 | Maintenance. |
| 6 | Communications. Includes fire alarm. |
| 7 | Administration. |
| 8 | Fire investigation. |
| 0 | Other assignment. |

G₂ Physical Condition Just Prior to Injury

☛ Physical Condition Just Prior to Injury was known as Physical Condition at Time of Injury in NFIRS 4.1.

Definition

The general physical condition of the firefighter prior to injury.

Purpose

The condition of the firefighter at the time of injury is important in determining and understanding how and why the injuries occurred.

Entry

Check or mark the box that best describes the physical condition of the firefighter at the time of injury.

Example

A firefighter was injured while under treatment for a cold (4):

| G ₂ Physical Condition Just Prior to Injury | | | |
|--|--|---|---------------------------------------|
| 1 | <input type="checkbox"/> Rested | 0 | <input type="checkbox"/> Other |
| 2 | <input type="checkbox"/> Fatigued | U | <input type="checkbox"/> Undetermined |
| 4 | <input checked="" type="checkbox"/> Ill or injured | | |

PHYSICAL CONDITION JUST PRIOR TO INJURY CODES

| | |
|---|----------------------------|
| 1 | Rested. |
| 2 | Fatigued. |
| 4 | Ill or injured. |
| 0 | Physical condition, other. |
| U | Undetermined. |

G₃ Severity ☆

Definition

The relative severity or seriousness of the injury based on a scale ranging from “no time lost from work” to “death.”

Purpose

An indication of severity can be used as a measure for prevention programs aimed at reducing injuries and deaths. At the local level, this element can be used to track lost-time injuries.

Entry

Check or mark the box that best describes the severity of the casualty.

Example

The injured firefighter would not be able to go to work the next day because of his injury (4):

☛ A health exposure occurs when fire service personnel are exposed to a toxic substance or harmful physi-

| G ₃ Severity ☆ | |
|---------------------------|--|
| 1 | <input type="checkbox"/> Report only, including exposure |
| 2 | <input type="checkbox"/> First aid only |
| 3 | <input type="checkbox"/> Treated by physician (no lost time) |
| 4 | <input checked="" type="checkbox"/> Moderate (lost time) |
| 5 | <input type="checkbox"/> Severe (lost time) |
| 6 | <input type="checkbox"/> Life threatening (lost time) |
| 7 | <input type="checkbox"/> Death |

cal agent through any route of entry into the body (e.g., inhalation, ingestion, skin absorption, direct contact). These exposures can be reported regardless of the presence of clinical signs and symptoms. Exposures are treated as “report only” (1).

SEVERITY CODES

- | | |
|---|--|
| 1 | Report only. Includes exposures to toxic substances or harmful physical agents through any route of entry into the body (e.g. inhalation, ingestion, skin absorption, direct contact). |
| 2 | First aid only. |
| 3 | Treated by physician, not a lost-time injury. |
| 4 | Moderate severity, lost-time injury. There is little danger of death or permanent disability. |
| 5 | Severe, lost-time injury. The situation is potentially life threatening if the condition remains uncontrolled. |
| 6 | Life threatening, lost-time injury. Death is imminent; body processes and vital signs are not normal. |
| 7 | Death. |

G⁴ Taken To

☛ Taken To was known as Patient Taken To in NFIRS 4.1.

Definition

Identifies where the fire service casualty was taken after the injury occurred.

Purpose

This information is useful in determining the personnel and equipment requirements for handling fire service casualties.

Entry

Check or mark the box that best describes where the fire service casualty was taken, regardless of who transported the firefighter. If the firefighter was not transported, check or mark the Not Transported box.

Example

An injured firefighter was taken to the hospital (1):

| | | |
|----------------------|--|--|
| G⁴ | Taken To | <input type="checkbox"/> Not transported |
| 1 | <input checked="" type="checkbox"/> Hospital | |
| 4 | <input type="checkbox"/> Doctor's office | |
| 5 | <input type="checkbox"/> Morgue/Funeral home | |
| 6 | <input type="checkbox"/> Residence | |
| 7 | <input type="checkbox"/> Station or quarters | |
| 0 | <input type="checkbox"/> Other | |

TAKEN TO CODES

| | |
|---|--|
| 1 | Hospital. |
| 4 | Doctor's office, non-emergency health care facility. |
| 5 | Morgue or funeral home. |
| 6 | Residence (firefighter's home). |
| 7 | Station or quarters. |
| 0 | Taken to, other. |
| N | Not transported. |

G⁵ Activity at Time of Injury

☛ Activity at Time of Injury was known as *Firefighter Activity* in NFIRS 4.1.

Definition

The activity being performed by the firefighter at the time the injury occurred.

Purpose

The activity at the time of injury is a prime factor in determining the cause of the injury and developing methods to minimize the hazards involved with that activity.

Entry

Enter the two-digit code and description of the activity of the casualty when injured.

Example

A firefighter was injured using power tools to ventilate the roof (42):

| | |
|----------------------------|-----------------------------------|
| G⁵ | Activity at Time of Injury |
| 4 2 | Ventilating w/power tools |
| Activity at time of injury | |

ACTIVITY AT TIME OF INJURY CODES**Driving or Riding Vehicle**

| | |
|----|---|
| 11 | Boarding fire department vehicle. |
| 12 | Driving fire department vehicle. |
| 13 | Tillering fire department vehicle. |
| 14 | Riding fire department vehicle. |
| 15 | Exiting fire department vehicle. |
| 16 | Driving/Riding non-fire department vehicle. |
| 17 | Boarding/Exiting non-fire department vehicle. |
| 10 | Driving or riding vehicle, other. |

Operating Fire Department Apparatus

- 21 Operating engine or pumper.
- 22 Operating aerial ladder or elevating platform.
- 23 Operating EMS vehicle.
- 24 Operating HazMat vehicle.
- 25 Operating rescue vehicle.
- 20 Operating fire department apparatus, other.

Extinguishing Fire or Neutralizing Incident

- 31 Handling charged hoselines.
- 32 Using hand extinguishers.
- 33 Operating master steam device.
- 34 Using handtools in extinguishment activity.
- 35 Removing power lines.
- 36 Removing flammable liquids/chemicals.
- 37 Shutting off utilities, gas lines, etc.
- 30 Extinguishing fire/neutralizing incident, other.

Suppression Support

- 41 Forcible entry.
- 42 Ventilation with power tools.
- 43 Ventilation with hand tools.
- 44 Salvage.
- 45 Overhaul.
- 40 Suppression support, other.

Access or Egress

- 51 Carrying ground ladder.
- 52 Raising ground ladder.
- 53 Lowering ground ladder.
- 54 Climbing ladder.
- 55 Scaling.
- 56 Escaping fire or hazard.
- 57 Moving/Lifting patient with carrying device.
- 58 Moving/Lifting patient without carrying device.
- 50 Access/Egress, other.

EMS or Rescue

- 61 Searching for victim.
- 62 Rescuing fire victim.
- 63 Rescuing non-fire victim.
- 64 Water rescue.
- 65 Providing EMS care.
- 66 Diving operations.
- 67 Extraction with power tools.
- 68 Extraction with hand tools.
- 60 EMS/Rescue, other.

Other Incident Scene Activity

- 71 Directing traffic.
- 72 Catching hydrant.
- 73 Laying hose.
- 74 Moving tools or equipment around scene.

- 75 Picking up tools, equipment, or hose on scene.
- 76 Setting up lighting. Includes portable generator operations.
- 77 Operating portable pump.
- 70 Other incident scene activity, other.

Station Activity

- 81 Moving about station, alarm sounding.
- 82 Moving about station, normal activity.
- 83 Station maintenance.
- 84 Vehicle maintenance.
- 85 Equipment maintenance.
- 86 Physical fitness activity, supervised.
- 87 Physical fitness activity, unsupervised.
- 88 Training activity or drill.
- 80 Station activity, other.

Other Activity

- 91 Incident investigation, during incident.
- 92 Incident investigation, after incident.
- 93 Inspection activity.
- 94 Administrative work.
- 95 Communications work.
- 00 Activity at time of injury, other.
- UU Undetermined.

SECTION H

This section focuses on the injury itself—the symptom that appears to be the most serious and the part of the body that has been injured.

H Primary Apparent Symptom*Definition*

The firefighter's most serious apparent injury.

Purpose

This entry, in conjunction with other related entries, can improve the understanding of the nature and cause of firefighter casualties and can aid in improving firefighter equipment and training needs. For example, large numbers of smoke inhalation injuries to firefighters would indicate a need to reevaluate the uses or adequacy of breathing apparatus.

Entry

Enter the two-digit code and description of the casualty's that appears to be the most serious.

Example

A firefighter is overcome by smoke (01):

| | |
|----------------------|---------------------------------|
| H₁ | Primary Apparent Symptom |
| [0 1] | [Smoke inhalation] |
| | Primary apparent symptom |

PRIMARY APPARENT SYMPTOM CODES

| | |
|----|--|
| 01 | Smoke inhalation. |
| 02 | Hazardous fumes inhalation. |
| 03 | Breathing difficulty or shortness of breath. |
| 11 | Burns and smoke inhalation. |
| 12 | Burns only, thermal. |
| 13 | Burn, scald. |
| 14 | Burn, chemical. |
| 15 | Burn, electric. |
| 21 | Cut or laceration. |
| 22 | Stab or puncture wound: penetrating. |
| 23 | Gunshot wound, projectile wound. |
| 24 | Contusion/Bruise, minor trauma. |
| 25 | Abrasion. |
| 31 | Dislocation. |
| 32 | Fracture. |
| 33 | Strain or sprain. |
| 34 | Swelling. |
| 35 | Crushing. |
| 36 | Amputation. |
| 41 | Cardiac symptoms. |
| 42 | Cardiac arrest. |
| 43 | Stroke. |
| 44 | Respiratory arrest. |
| 51 | Chills. |
| 52 | Fever. |
| 53 | Nausea. |
| 54 | Vomiting. |
| 55 | Numbness or tingling, paresthesia. |
| 56 | Paralysis. |
| 57 | Frostbite. |
| 50 | Sickness, other. |
| 61 | Miscarriage. |
| 63 | Eye trauma, avulsion. |
| 64 | Drowning. |
| 65 | Foreign body obstruction. |
| 66 | Electric shock. |
| 67 | Poison. |
| 71 | Convulsion or seizure. |
| 72 | Internal trauma. |
| 73 | Hemorrhaging, bleeding internally. |
| 81 | Disorientation. |
| 82 | Dizziness/Fainting/Weakness. |
| 83 | Exhaustion/Fatigue. Includes heat exhaustion. |
| 84 | Heat stroke. |
| 85 | Dehydration. |
| 91 | Allergic reaction. Includes anaphylactic shock and hypersensitivity to medication. |
| 92 | Drug overdose. |
| 93 | Alcohol impairment. |
| 94 | Emotional/Psychological stress. |
| 95 | Mental disorder. |
| 96 | Shock. |
| 97 | Unconscious. |
| 98 | Pain only. |
| 00 | Primary apparent symptom, other. |
| UU | Undetermined. |

H² Primary Part of Body Injured

Definition

The body part or area that was affected or sustained the most serious injury.

Purpose

An analysis of the data from Blocks G5, H1, and H2 will assist in the development of protective clothing, equipment, safe operating procedures, and safety training.

Entry

Enter the two-digit code and description of the part of the body that was most seriously injured. It should be the same part of the body affected by the Primary Apparent Symptom. If no body part was injured, check or mark the None box.

Example

A firefighter was overcome by smoke (81):

| | | |
|---------------------------|-------------------------------------|-------------------------------|
| H2 | Primary Part of Body Injured | <input type="checkbox"/> None |
| 8 1 | Lungs | |
| Primary injured body part | | |

PRIMARY PART OF BODY INJURED CODES

Head

- 11 Ear.
- 12 Eye.
- 13 Nose.
- 14 Mouth. Includes lips, teeth, and interior.
- 10 Head, other.

Neck and Shoulders

- 21 Neck.
- 22 Throat.
- 23 Shoulder.

Thorax

- 31 Back. Excludes spine (51).
- 32 Chest.

Abdominal Area

- 41 Abdomen.
- 42 Pelvis or groin.
- 43 Hip, lower back, or buttocks.

Spine

51 Spine. Excludes back (31).

Upper Extremities

61 Arm, upper. Excludes elbows (63) and shoulders (23).

62 Arm, lower. Excludes elbows (63) and wrists (64).

63 Elbow.

64 Wrist.

65 Hand and fingers.

Lower Extremities

71 Leg, upper. Excludes knees (73).

72 Leg, lower. Excludes knees (73), ankles (74), and foot and toes (75).

73 Knee.

74 Ankle.

75 Foot and toes.

Internal

81 Trachea and lungs.

82 Heart.

83 Stomach.

84 Intestinal tract.

85 Genito-urinary.

80 Internal, other.

Multiple Parts

91 Multiple body parts, upper body.

92 Multiple body parts, lower body.

93 Multiple body parts, whole body.

Other Body Parts

00 Part of body injured, other.

NN None.

UU Undetermined.

SECTION I

This section collects information on the cause and factor that contributed to the firefighter's injury and whether an object was involved.

I Cause of Firefighter Injury*Definition*

The action or lack of action that directly resulted in the injury.

Purpose

An analysis of this information may permit an understanding of the condition causing the injury and a means of planning suitable preventive techniques. For example, firefighter injuries resulting from a blow to the head may indicate inadequacies in helmet design.

Entry

Enter the code and a written description for the immediate cause or condition responsible for the injury.

Example

A firefighter receives burns (4) on the forearm:

| | | |
|----------------------|--|---|
| I₁ | Cause of Firefighter Injury | |
| | <table border="1"> <tr> <td>4</td> <td>Exposure</td> </tr> </table> <p>Cause of injury</p> | 4 |
| 4 | Exposure | |

CAUSE OF FIREFIGHTER INJURY CODES

| | |
|---|--|
| 1 | Fall. |
| 2 | Jump. |
| 3 | Slip/Trip. |
| 4 | Exposure to hazard. Includes exposure to heat, smoke, or toxic agents. |
| 5 | Struck or assaulted by person, animal, moving object. |
| 6 | Contact with object (firefighter moved into or onto object). Includes running into objects, stepping on objects, or grabbing a hot or electrically charged object. |
| 7 | Overexertion/Strain. |
| 0 | Cause of injury, other. |
| U | Undetermined. |

I² Factor Contributing to Injury

☛ Factor Contributing to Injury was a part of Cause of Firefighter Injury in NFIRS 4.1.

Definition

The most significant factor contributing to the injury of the fire service casualty.

Purpose

This element provides additional information on how an injury occurred. The analysis of this information may permit an understanding of the events causing the injury and a means of planning suitable preventive techniques.

Entry

Enter the two-digit code and description of the most significant factor contributing to the injury. Check or mark the None box if there was no apparent factor that contributed to the injury.

Example

The firefighter suffered from smoke inhalation after becoming disoriented and lost in the building (32):

| | | |
|----------------------|---|------|
| I₂ | Factor Contributing to Injury <input type="checkbox"/> None | |
| | <table border="1"> <tr> <td>3, 2</td> <td>Lost in the building</td> </tr> </table> <p>Contributing factor</p> | 3, 2 |
| 3, 2 | Lost in the building | |

FACTOR CONTRIBUTING TO INJURY CODES**Collapse or Falling Object**

- 11 Roof collapse.
- 12 Wall collapse.
- 13 Floor collapse.
- 14 Ceiling collapse.
- 15 Stair collapse.
- 16 Falling objects.
- 17 Cave-in (earth).
- 10 Collapse or falling object, other.

Fire Development

- 21 Fire progress. Includes smoky conditions.
- 22 Backdraft.
- 23 Flashover.
- 24 Explosion.
- 20 Fire development, other.

Lost, Caught, Trapped, or Confined

- 31 Person physically caught or trapped. Excludes persons directly injured by a structural collapse or falling object (10 series).
- 32 Lost in building.
- 33 Operating in confined structural areas. Includes attics and crawl spaces.
- 34 Operating under water or ice.
- 30 Lost, caught, trapped, or confined, other.

Holes

- 41 Unguarded hole in structure.
- 42 Hole burned through roof.
- 43 Hole burned through floor.
- 40 Holes, other.

Slippery or Uneven Surfaces

- 51 Icy surface.
- 52 Wet surface. Includes water, soap, foam, lubricating materials, etc.
- 53 Loose material on surface.
- 54 Uneven surface. Includes holes in the ground.
- 50 Slippery or uneven surfaces, other.

Vehicle or Apparatus

- 61 Vehicle left road or overturned.
- 62 Vehicle collided with another vehicle.
- 63 Vehicle collided with nonvehicular object.
- 64 Vehicle stopped too fast.
- 65 Seat belt not fastened.
- 66 Firefighter standing on apparatus.
- 60 Vehicle or apparatus, other.

Other Contributing Factors

- 91 Civil unrest. Includes riots and civil disturbances.
- 92 Hostile acts.
- 00 Factor contributing to injury, other.
- NN None.
- UU Undetermined.

13 Object Involved in Injury

Definition

The description of the object, if one was involved, that contributed to the injury of the fire service casualty.

Purpose

This field provides additional information on how a casualty occurred. The analysis of this information, in combination with other entries, may permit an understanding of the events causing the injury and a means of planning suitable preventive techniques.

Entry

Enter the two-digit code and description of the object involved in the injury. If no object was involved, check or mark the None box.

Example

The firefighter received a cut on the forearm when a piece of glass dropped from a second-story window (43):

| | | |
|------------------------------|---|-------------------------------|
| 13 Object Involved in Injury | | <input type="checkbox"/> None |
| 4 | 3 | Glass |
| Object involved in injury | | |

OBJECT INVOLVED IN INJURY CODES

| | |
|----|--|
| 11 | Coupling. |
| 12 | Hose, not charged. |
| 13 | Hose, charged. |
| 14 | Water from master stream. |
| 15 | Water from hose line. |
| 16 | Water, not from a hose. |
| 17 | Steam. |
| 18 | Extinguishing agent, not water. |
| 21 | Ladder, aerial. |
| 22 | Ladder, ground. |
| 23 | Tools/Equipment. |
| 24 | Knife, scissors. |
| 25 | Syringe. |
| 26 | Fire department vehicle or apparatus. |
| 27 | Fire department vehicle door. Includes apparatus compartments. |
| 28 | Station sliding pole. |
| 31 | Curb. |
| 32 | Door in building. |
| 33 | Fire escape. |
| 34 | Ledge. |
| 35 | Stairs. |
| 36 | Wall. Includes other vertical surfaces such as cliffs. |
| 37 | Window. |
| 38 | Roof. |

| | |
|----|---|
| 39 | Floor or ceiling. |
| 30 | Structural component, other. |
| 41 | Asbestos. |
| 42 | Dirt, stones, or debris. |
| 43 | Glass. |
| 45 | Nails. |
| 46 | Splinters. |
| 47 | Embers. |
| 48 | Hot tar. |
| 49 | Hot metal. |
| 51 | Biological agents. |
| 52 | Chemicals. |
| 53 | Fumes, gases, or smoke. |
| 54 | Poisonous plants. |
| 55 | Insects. |
| 56 | Radioactive materials. |
| 61 | Electricity. |
| 62 | Extreme weather. |
| 63 | Utility flames, flares, torches. |
| 64 | Heat or flame. |
| 91 | Person: victim. |
| 92 | Property and structure contents. |
| 93 | Animal. |
| 94 | Non-fire department vehicle. |
| 95 | Gun. Includes all other projectile weapons. |
| 90 | Person, other. |
| 00 | Object involved in injury, other. |
| NN | None. |
| UU | Undetermined. |

SECTION J

This section captures information on the specific location where the firefighter was injured and, if in a vehicle, the type of vehicle involved.

J¹ Where Injury Occurred

Definition

The place where the injury occurred. This location may be en route to or from the scene, at the incident scene, at the station, or some other location.

Purpose

In conjunction with other fields, this element can help identify why the firefighter sustained a certain type of injury. It can indicate areas in which safety training and safer operating procedures may be necessary.

Entry

Check or mark the box that best describes where the injury took place.

Example

A firefighter was killed en route to a call when the tanker overturned (3):

| J₁ Where Injury Occurred | |
|--|--|
| 1 | <input type="checkbox"/> En route to FD location |
| 2 | <input type="checkbox"/> At FD location |
| 3 | <input checked="" type="checkbox"/> En route to incident scene |
| 4 | <input type="checkbox"/> En route to medical facility |
| 5 | <input type="checkbox"/> At scene in structure |
| 6 | <input type="checkbox"/> At scene outside |
| 7 | <input type="checkbox"/> At medical facility |
| 8 | <input type="checkbox"/> Returning from incident |
| 9 | <input type="checkbox"/> Returning from med facility |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

WHERE INJURY OCCURRED CODES

| | |
|---|--|
| 1 | En route to fire department location. Includes volunteers responding to the fire station or apparatus traveling between fire department locations. |
| 2 | At fire department location. |
| 3 | En route to incident or assignment. |
| 4 | En route to medical facility. |
| 5 | At scene, in structure. |
| 6 | At scene, outside structure. |
| 7 | At medical facility. |
| 8 | Returning from incident or assignment. |
| 9 | Returning from medical facility. |
| 0 | Where injury occurred, other. |
| U | Undetermined. |

J² Story Where Injury Occurred

Definition

This element identifies the story where the injury occurred.

Purpose

This entry provides additional information on where the injury occurred, which can help in directing injury prevention efforts. This element, combined with other elements, better describes the accident scene.

Entry

If the injury occurred inside or on a structure, enter the story where the injury occurred. If the story is below grade, check or mark the Below Grade box.

- ☛ Complete this block only if the injury occurred inside a structure.
- ☛ Checking or marking the Below Grade box has the effect of entering a negative number in NFIRS 5.0.

Example

The casualty occurred inside the building on the third story:

J₂ Story Where Injury Occurred

1 Check this box and enter the story if the injury occurred inside or on a structure

|_|_| 3 | Story of injury Below grade

2 Injury occurred outside

J³ Specific Location Where Injury Occurred

Definition

This element identifies the specific location of the fire service casualty at the time of injury.

Purpose

This element provides additional information on where the injury occurred. This can be helpful in directing injury prevention efforts.

Entry

Check or mark the box that best describes the specific location at time of injury.

☛ If any code greater than 60 is checked or marked, continue to Block J4.

Example

The firefighter sprained an ankle climbing down a ground ladder (25):

J₃ Specific Location Where Injury Occurred

| | | | |
|----|-------------------------------------|-------------------------------|--|
| 65 | <input type="checkbox"/> | In aircraft | Complete Block J4 |
| 64 | <input type="checkbox"/> | In boat, ship, or barge | |
| 63 | <input type="checkbox"/> | In rail vehicle | |
| 61 | <input type="checkbox"/> | In motor vehicle | |
| 54 | <input type="checkbox"/> | In sewer | |
| 53 | <input type="checkbox"/> | In tunnel | |
| 49 | <input type="checkbox"/> | In structure | |
| 45 | <input type="checkbox"/> | In attic | |
| 36 | <input type="checkbox"/> | In water | 00 <input type="checkbox"/> Other |
| 35 | <input type="checkbox"/> | In well | UU <input type="checkbox"/> Undetermined |
| 34 | <input type="checkbox"/> | In ravine | |
| 33 | <input type="checkbox"/> | In quarry or mine | |
| 32 | <input type="checkbox"/> | In ditch or trench | |
| 31 | <input type="checkbox"/> | In open pit | |
| 28 | <input type="checkbox"/> | On steep grade | |
| 27 | <input type="checkbox"/> | On fire escape/outside stairs | |
| 26 | <input type="checkbox"/> | On vertical surface or ledge | |
| 25 | <input checked="" type="checkbox"/> | On ground ladder | |
| 24 | <input type="checkbox"/> | On aerial ladder or in basket | |
| 23 | <input type="checkbox"/> | On roof | |
| 22 | <input type="checkbox"/> | Outside at grade | |

SPECIFIC LOCATION WHERE INJURY OCCURRED CODES

| | |
|----|---|
| 22 | Outside at grade. |
| 23 | On roof. |
| 24 | On aerial ladder or in basket. |
| 25 | On ground ladder. |
| 26 | On vertical surface or ledge. |
| 27 | On fire escape or outside stairway. |
| 28 | On steep grade. |
| 31 | In open pit. |
| 32 | In ditch or trench. |
| 33 | In quarry or mine. |
| 34 | In ravine. |
| 35 | In well. |
| 36 | In water. |
| 45 | In attic or other confined structural space. |
| 49 | In structure. Excludes attic, roof, or wall. |
| 53 | In tunnel. |
| 54 | In sewer. |
| 61 | In motor vehicle. |
| 63 | In rail vehicle. |
| 64 | In boat, ship, or barge. |
| 65 | In aircraft. |
| 00 | Specific location where injury occurred, other. |
| UU | Undetermined. |

J⁴ Vehicle Type*Definition*

Identifies the type of vehicle that the firefighter was in at time of injury.

Purpose

This element provides more information on where and how the injury occurred. This can be helpful in directing injury prevention efforts.

Entry

Check or mark the box that best describes the vehicle type.

☛ Complete this block only if the Specific Location code (Block J3) is greater than 60.

Example

The volunteer firefighter was injured in his personal vehicle on the way to a call:

| | | |
|----------------------|--|--|
| J⁴ | Vehicle Type | Complete ONLY if Specific Location code is >60 |
| | 1 <input type="checkbox"/> Suppression vehicle | |
| | 2 <input type="checkbox"/> EMS vehicle | |
| | 3 <input type="checkbox"/> Other FD vehicle | |
| | 4 <input checked="" type="checkbox"/> Non-FD vehicle | |

VEHICLE TYPE CODES

- 1 Suppression vehicle.
- 2 EMS vehicle.
- 3 Other fire department vehicle. Includes passenger vehicles.
- 4 Non-fire department vehicle. Includes private auto.
- N None.

SECTION K

Information on whether firefighter equipment failed and contributed to the injury is collected in this section.

K¹ Equipment Sequence Number*Definition*

A unique number assigned to each piece of faulty equipment worn or used by the injured firefighter.

Purpose

In conjunction with other field in the section, the sequence number permits each piece of equipment associated with an injury to be identified separately on the casualty file.

Entry

If no equipment failed, check or mark the No box, which completes the entries of this module. If protective equipment failed and it contributed to the injury, check or mark the Yes box and complete the remainder of this section (Blocks K1 through K4). Enter the equipment sequence number. A separate Equipment Sequence Number is assigned to each piece of equipment that failed and contributed to the injury. The first equipment is always coded "001," and each succeeding equipment is numbered sequentially and incremented by 1 beginning with "002." The three-character numeric field is zero filled, not right justified.

☛ A separate form is required for each piece of equipment that failed and contributed to the injury.

Example

The first piece of faulty equipment associated with an injury to a firefighter:

| | | | |
|-----------|--|--|---------------------------------|
| K1 | Did protective equipment fail and contribute to the injury? Please complete the remainder of this form ONLY if you answer YES. | Yes Y <input checked="" type="checkbox"/> | Equipment Sequence Number |
| | | No N <input type="checkbox"/> | |

EQUIPMENT FAILED CODES

Y Yes.
N No.

K² Protective Equipment Item

☛ Protective Equipment Item replaces the five individual equipment lists in NFIRS 4.1

Definition

This block records information about the faulty protective equipment item that was a factor in the firefighter's injury.

Purpose

This element provides more information on why the injury occurred and may help detect problems with equipment that could lead to future injuries.

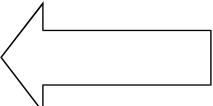
Entry

Check or mark the box that best describes the piece of protective equipment that failed and contributed to the injury.

Example

The firefighter's face piece melted (12) causing burns on the side of his face:

| K² Protective Equipment Item | |
|--|---|
| Head or Face Protection | |
| 11 | <input type="checkbox"/> Helmet |
| 12 | <input checked="" type="checkbox"/> Full face protector |
| 13 | <input type="checkbox"/> Partial face protector |
| 14 | <input type="checkbox"/> Goggles/eye protection |
| 15 | <input type="checkbox"/> Hood |
| 16 | <input type="checkbox"/> Ear protector |
| 17 | <input type="checkbox"/> Neck protector |
| 10 | <input type="checkbox"/> Other |


PROTECTIVE EQUIPMENT ITEM CODES**Head or Face Protection**

11 Helmet.
12 Full face protector.
13 Partial face protector.
14 Goggles/Eye protection.
15 Hood.
16 Ear protector.
17 Neck protector.
10 Head or face protection, other.

Coat, Shirt, or Trousers

- 21 Protective coat.
- 22 Protective trousers.
- 23 Uniform shirt.
- 24 Uniform T-shirt.
- 25 Uniform trousers.
- 26 Uniform coat or jacket.
- 27 Coveralls.
- 28 Apron or gown.
- 20 Coat, shirt, or trousers, other.

Boots or Shoes

- 31 Knee-length boots with steel baseplate and steel toes.
- 32 Knee-length boots with steel toes only.
- 33 3/4-length boots with steel baseplate and steel toes.
- 34 3/4-length boots with steel toes only.
- 35 Boots without steel baseplate or steel toes.
- 36 Safety shoes with steel baseplate and steel toes.
- 37 Safety shoes with steel toes only.
- 38 Non-safety shoes.
- 30 Boots or shoes, other.

Respiratory Protection

- 41 Self-contained breathing apparatus (SCBA), demand, open circuit.
- 42 Self-contained breathing apparatus (SCBA), positive pressure, open circuit.
- 43 Self-contained breathing apparatus (SCBA), closed circuit.
- 44 Non-self-contained breathing apparatus.
- 45 Cartridge respirator.
- 46 Dust or particle mask.
- 40 Respiratory protection, other.

Hand Protection

- 51 Firefighter gloves with wristlets.
- 52 Firefighter gloves without wristlets.
- 53 Work gloves.
- 54 HazMat gloves.
- 55 Medical gloves.
- 50 Hand protection, other.

Special Equipment

- 61 Proximity suit for entry.
- 62 Proximity suit for non-entry.
- 63 Totally encapsulated, reusable chemical suit.
- 64 Totally encapsulated, disposable chemical suit.
- 65 Partially encapsulated, reusable chemical suit.
- 66 Partially encapsulated, disposable chemical suit.
- 67 Flash protection suit.
- 68 Flight or jump suit.
- 69 Brush suit.

Special Equipment Continued

- 71 Exposure suit.
- 72 Self-contained underwater breathing apparatus (SCUBA).
- 73 Life preserver.
- 74 Life belt or ladder belt.
- 75 Personal alert safety system (PASS).
- 76 Radio distress device.
- 77 Personal lighting.
- 78 Fire shelter or tent.
- 79 Vehicle safety belt.
- 70 Special equipment, other.
- 00 Protective equipment item, other.

K³ Protective Equipment Problem

☛ *Protective Equipment Problem* replaces the five individual equipment problem lists in NFIRS 4.1

Definition

The most serious problem with the piece of equipment that failed and contributed to the injury.

Purpose

Provides additional information on why the injury occurred and highlights problems with specific equipment.

Entry

Check or mark the box that best describes the protective equipment problem.

Example

The firefighter's face piece melted (12):

| K ₃ Protective Equipment Problem | |
|--|---|
| Check one box to indicate the main problem that occurred | |
| 11 | <input type="checkbox"/> Burned |
| 12 | <input checked="" type="checkbox"/> Melted |
| 21 | <input type="checkbox"/> Fractured, cracked or broken |
| 22 | <input type="checkbox"/> Punctured |
| 23 | <input type="checkbox"/> Scratched |
| 24 | <input type="checkbox"/> Knocked off |
| 25 | <input type="checkbox"/> Cut or ripped |
| 31 | <input type="checkbox"/> Trapped steam or hazardous gas |
| 32 | <input type="checkbox"/> Insufficient insulation |
| 33 | <input type="checkbox"/> Object fell in or onto equipment item |
| 41 | <input type="checkbox"/> Failed under impact |
| 42 | <input type="checkbox"/> Face piece or hose detached |
| 43 | <input type="checkbox"/> Exhalation valve inoperative or damaged |
| 44 | <input type="checkbox"/> Harness detached or separated |
| 45 | <input type="checkbox"/> Regulator failed to operate |
| 46 | <input type="checkbox"/> Regulator damaged by contact |
| 47 | <input type="checkbox"/> Problem with admissions valve |
| 48 | <input type="checkbox"/> Alarm failed to operate |
| 49 | <input type="checkbox"/> Alarm damaged by contact |
| 51 | <input type="checkbox"/> Supply cylinder or valve failed to operate |
| 52 | <input type="checkbox"/> Supply cylinder/valve damaged by contact |
| 53 | <input type="checkbox"/> Supply cylinder—insufficient air/oxygen |
| 94 | <input type="checkbox"/> Did not fit properly |
| 95 | <input type="checkbox"/> Not properly serviced or stored prior to use |
| 96 | <input type="checkbox"/> Not used for designed purpose |
| 97 | <input type="checkbox"/> Not used as recommended by manufacturer |
| 00 | <input type="checkbox"/> Other equipment problem |
| UU | <input type="checkbox"/> Undetermined |

PROTECTIVE EQUIPMENT PROBLEM CODES

| | |
|----|---|
| 11 | Burned. |
| 12 | Melted. |
| 21 | Fractured, cracked, or broke. |
| 22 | Punctured. |
| 23 | Scratched. |
| 24 | Knocked off. |
| 25 | Cut or ripped. |
| 31 | Trapped steam or hazardous gas. |
| 32 | Insufficient insulation. |
| 33 | Object fell in or onto equipment item. |
| 41 | Failed under impact. |
| 42 | Face piece or hose detached. |
| 43 | Exhalation valve inoperative or damaged. |
| 44 | Harness detached or separated. |
| 45 | Regulator failed to operate. |
| 46 | Regulator damaged by contact. |
| 47 | Problem with admissions valve. |
| 48 | Alarm failed to operate. |
| 49 | Alarm damaged by contact. |
| 51 | Supply cylinder or valve failed to operate. |
| 52 | Supply cylinder or valve damaged by contact. |
| 53 | Supply cylinder contained insufficient air or oxygen. |
| 94 | Did not fit properly. |
| 95 | Not properly serviced or stored prior to use. |
| 96 | Not used for designed purpose. |
| 97 | Not used as recommended by manufacturer. |
| 00 | Protective equipment problem, other. |
| UU | Undetermined. |

K⁴ Equipment Manufacturer, Model, and Serial Number

Definition

This block identifies the specific equipment that failed.

Manufacturer is to the name of the company that made the piece of equipment.

Model is to the manufacturer's model name. If one does not exist, use the equipment's common physical description.

Serial Number is to the manufacturer's serial number that is generally stamped on an identification plate on the equipment. Lot number may also be used here if no serial number is available.

Purpose

These data elements provide detailed information on the specific equipment that failed and contributed to the injury. Data on model and other information are useful in determining the compliance with standards for protective equipment involved in firefighting and for analyzing the effectiveness of these codes, standards, and regulations.

Entry

Enter the manufacturer's name, the model name, and the serial number.

- ☛ The actual length of each of these three fields is 12 characters. Complete as much as possible to provide a positive identification.

Example

The face piece that melted was a Lingo Model 23-001, serial number 147AC01.

| | |
|-----------|---|
| K4 | Equipment Manufacturer, Model, and Serial Number |
| | Lingo Inc. Manufacturer |
| | 23-001 Model |
| | 1 4 7 A C 0 1 Serial Number |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|--|--|---|--|--|--|---|--|---|--|---|--|---|---|--|-------------------------------------|--|---|--|------------------------------------|-----------------------------------|---|--|-----------------------------------|--|--|--|--|---|---|-------------------------------------|--|
| A FDID <input type="text"/> State <input type="text"/> Incident Date <input type="text"/> MM <input type="text"/> DD <input type="text"/> YYYY <input type="text"/> Station <input type="text"/> Incident Number <input type="text"/> Exposure <input type="text"/> | | <input type="checkbox"/> Delete <input type="checkbox"/> Change | NFIRS-6 EMS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B Number of Patients <input type="text"/> Patient Number <input type="text"/> | | C Date/Time Month <input type="text"/> Day <input type="text"/> Year <input type="text"/> Hour/Min <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use a separate form for each patient | | <input type="checkbox"/> Time Arrived at Patient <input type="checkbox"/> Time of Patient Transfer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D Provider Impression/Assessment <input type="checkbox"/> None/no patient or refused treatment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width:100%; border: none;"> <tr> <td style="width:25%; border: none;">10 <input type="checkbox"/> Abdominal pain</td> <td style="width:25%; border: none;">18 <input type="checkbox"/> Chest pain</td> <td style="width:25%; border: none;">26 <input type="checkbox"/> Hypovolemia</td> <td style="width:25%; border: none;">34 <input type="checkbox"/> Sexual assault</td> </tr> <tr> <td style="border: none;">11 <input type="checkbox"/> Airway obstruction</td> <td style="border: none;">19 <input type="checkbox"/> Diabetic symptom</td> <td style="border: none;">27 <input type="checkbox"/> Inhalation injury</td> <td style="border: none;">35 <input type="checkbox"/> Sting/Bite</td> </tr> <tr> <td style="border: none;">12 <input type="checkbox"/> Allergic reaction</td> <td style="border: none;">20 <input type="checkbox"/> Do not resuscitate</td> <td style="border: none;">28 <input type="checkbox"/> Obvious death</td> <td style="border: none;">36 <input type="checkbox"/> Stroke/CVA</td> </tr> <tr> <td style="border: none;">13 <input type="checkbox"/> Altered LOC</td> <td style="border: none;">21 <input type="checkbox"/> Electrocutation</td> <td style="border: none;">29 <input type="checkbox"/> OD/Poisoning</td> <td style="border: none;">37 <input type="checkbox"/> Syncope</td> </tr> <tr> <td style="border: none;">14 <input type="checkbox"/> Behavioral/Psych</td> <td style="border: none;">22 <input type="checkbox"/> General illness</td> <td style="border: none;">30 <input type="checkbox"/> Pregnancy/OB</td> <td style="border: none;">38 <input type="checkbox"/> Trauma</td> </tr> <tr> <td style="border: none;">15 <input type="checkbox"/> Burns</td> <td style="border: none;">23 <input type="checkbox"/> Hemorrhaging/Bleeding</td> <td style="border: none;">31 <input type="checkbox"/> Respiratory arrest</td> <td style="border: none;">00 <input type="checkbox"/> Other</td> </tr> <tr> <td style="border: none;">16 <input type="checkbox"/> Cardiac arrest</td> <td style="border: none;">24 <input type="checkbox"/> Hyperthermia</td> <td style="border: none;">32 <input type="checkbox"/> Respiratory distress</td> <td></td> </tr> <tr> <td style="border: none;">17 <input type="checkbox"/> Cardiac dysrhythmia</td> <td style="border: none;">25 <input type="checkbox"/> Hypothermia</td> <td style="border: none;">33 <input type="checkbox"/> Seizure</td> <td></td> </tr> </table> | | | | 10 <input type="checkbox"/> Abdominal pain | 18 <input type="checkbox"/> Chest pain | 26 <input type="checkbox"/> Hypovolemia | 34 <input type="checkbox"/> Sexual assault | 11 <input type="checkbox"/> Airway obstruction | 19 <input type="checkbox"/> Diabetic symptom | 27 <input type="checkbox"/> Inhalation injury | 35 <input type="checkbox"/> Sting/Bite | 12 <input type="checkbox"/> Allergic reaction | 20 <input type="checkbox"/> Do not resuscitate | 28 <input type="checkbox"/> Obvious death | 36 <input type="checkbox"/> Stroke/CVA | 13 <input type="checkbox"/> Altered LOC | 21 <input type="checkbox"/> Electrocutation | 29 <input type="checkbox"/> OD/Poisoning | 37 <input type="checkbox"/> Syncope | 14 <input type="checkbox"/> Behavioral/Psych | 22 <input type="checkbox"/> General illness | 30 <input type="checkbox"/> Pregnancy/OB | 38 <input type="checkbox"/> Trauma | 15 <input type="checkbox"/> Burns | 23 <input type="checkbox"/> Hemorrhaging/Bleeding | 31 <input type="checkbox"/> Respiratory arrest | 00 <input type="checkbox"/> Other | 16 <input type="checkbox"/> Cardiac arrest | 24 <input type="checkbox"/> Hyperthermia | 32 <input type="checkbox"/> Respiratory distress | | 17 <input type="checkbox"/> Cardiac dysrhythmia | 25 <input type="checkbox"/> Hypothermia | 33 <input type="checkbox"/> Seizure | |
| 10 <input type="checkbox"/> Abdominal pain | 18 <input type="checkbox"/> Chest pain | 26 <input type="checkbox"/> Hypovolemia | 34 <input type="checkbox"/> Sexual assault | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 <input type="checkbox"/> Airway obstruction | 19 <input type="checkbox"/> Diabetic symptom | 27 <input type="checkbox"/> Inhalation injury | 35 <input type="checkbox"/> Sting/Bite | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 <input type="checkbox"/> Allergic reaction | 20 <input type="checkbox"/> Do not resuscitate | 28 <input type="checkbox"/> Obvious death | 36 <input type="checkbox"/> Stroke/CVA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 <input type="checkbox"/> Altered LOC | 21 <input type="checkbox"/> Electrocutation | 29 <input type="checkbox"/> OD/Poisoning | 37 <input type="checkbox"/> Syncope | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 <input type="checkbox"/> Behavioral/Psych | 22 <input type="checkbox"/> General illness | 30 <input type="checkbox"/> Pregnancy/OB | 38 <input type="checkbox"/> Trauma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 <input type="checkbox"/> Burns | 23 <input type="checkbox"/> Hemorrhaging/Bleeding | 31 <input type="checkbox"/> Respiratory arrest | 00 <input type="checkbox"/> Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 <input type="checkbox"/> Cardiac arrest | 24 <input type="checkbox"/> Hyperthermia | 32 <input type="checkbox"/> Respiratory distress | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 <input type="checkbox"/> Cardiac dysrhythmia | 25 <input type="checkbox"/> Hypothermia | 33 <input type="checkbox"/> Seizure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E1 Age or Date of Birth <input type="checkbox"/> Months (for infants) | | F1 Race | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="text"/> Age OR <input type="text"/> Month <input type="text"/> Day <input type="text"/> Year | | 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black, African American 3 <input type="checkbox"/> Am. Indian, Alaska Native 4 <input type="checkbox"/> Asian 5 <input type="checkbox"/> Native Hawaiian, Other Pacific Islander 0 <input type="checkbox"/> Other, multiracial U <input type="checkbox"/> Undetermined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E2 Gender 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female | | F2 Ethnicity 1 <input type="checkbox"/> Hispanic or Latino 2 <input type="checkbox"/> Non Hispanic or Latino | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G1 Human Factors Contributing to Injury <input type="checkbox"/> None | | G2 Other Factors <input type="checkbox"/> None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Check all applicable boxes 1 <input type="checkbox"/> Asleep 2 <input type="checkbox"/> Unconscious 3 <input type="checkbox"/> Possibly impaired by alcohol 4 <input type="checkbox"/> Possibly impaired by drug 5 <input type="checkbox"/> Possibly mentally disabled 6 <input type="checkbox"/> Physically disabled 7 <input type="checkbox"/> Physically restrained 8 <input type="checkbox"/> Unattended person | | If an illness, not an injury, skip G2 and go to H3 1 <input type="checkbox"/> Accidental 2 <input type="checkbox"/> Self-inflicted 3 <input type="checkbox"/> Inflicted, not self | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H1 Body Site of Injury List up to five body sites | | H2 Injury Type List one injury type for each body site listed under H1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H3 Cause of Illness/Injury <input type="text"/> Cause of illness/Injury | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I Procedures Used Check all applicable boxes <input type="checkbox"/> No treatment | | J Safety Equipment <input type="checkbox"/> None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 <input type="checkbox"/> Airway insertion 02 <input type="checkbox"/> Anti-shock trousers 03 <input type="checkbox"/> Assist ventilation 04 <input type="checkbox"/> Bleeding control 05 <input type="checkbox"/> Burn care 06 <input type="checkbox"/> Cardiac pacing 07 <input type="checkbox"/> Cardioversion (defib) manual 08 <input type="checkbox"/> Chest/Abdominal thrust 09 <input type="checkbox"/> CPR 10 <input type="checkbox"/> Cricothyroidotomy 11 <input type="checkbox"/> Defibrillation by AED 12 <input type="checkbox"/> EKG monitoring 13 <input type="checkbox"/> Extrication | | Used or deployed by patient. Check all applicable boxes. 1 <input type="checkbox"/> Safety/Seat belts 2 <input type="checkbox"/> Child safety seat 3 <input type="checkbox"/> Airbag 4 <input type="checkbox"/> Helmet 5 <input type="checkbox"/> Protective clothing 6 <input type="checkbox"/> Flotation device 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 <input type="checkbox"/> Intubation (EGTA) 15 <input type="checkbox"/> Intubation (ET) 16 <input type="checkbox"/> IO/IV therapy 17 <input type="checkbox"/> Medications therapy 18 <input type="checkbox"/> Oxygen therapy 19 <input type="checkbox"/> OB care/delivery 20 <input type="checkbox"/> Prerarrival instructions 21 <input type="checkbox"/> Restrain patient 22 <input type="checkbox"/> Spinal immobilization 23 <input type="checkbox"/> Splinted extremities 24 <input type="checkbox"/> Suction/Aspirate 00 <input type="checkbox"/> Other | | K Cardiac Arrest Check all applicable boxes 1 <input type="checkbox"/> Pre-arrival arrest? If pre-arrival arrest, was it: 1 <input type="checkbox"/> Witnessed? 2 <input type="checkbox"/> Bystander CPR? 2 <input type="checkbox"/> Post-arrival arrest? Initial Arrest Rhythm 1 <input type="checkbox"/> V-Fib/V-Tach 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L1 Initial Level of Provider | | L2 Highest Level of Care Provided On Scene <input type="checkbox"/> None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 <input type="checkbox"/> First Responder 2 <input type="checkbox"/> EMT-B (Basic) 3 <input type="checkbox"/> EMT-I (Intermediate) 4 <input type="checkbox"/> EMT-P (Paramedic) 0 <input type="checkbox"/> Other provider N <input type="checkbox"/> No Training | | 1 <input type="checkbox"/> First Responder 2 <input type="checkbox"/> EMT-B (Basic) 3 <input type="checkbox"/> EMT-I (Intermediate) 4 <input type="checkbox"/> EMT-P (Paramedic) 0 <input type="checkbox"/> Other provider | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M Patient Status | | N EMS Disposition <input type="checkbox"/> Not transported | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 <input type="checkbox"/> Improved 2 <input type="checkbox"/> Remained same 3 <input type="checkbox"/> Worsened Check if: 1 <input type="checkbox"/> Pulse on transfer 2 <input type="checkbox"/> No pulse on transfer | | 1 <input type="checkbox"/> FD transport to ECF 2 <input type="checkbox"/> Non-FD transport 3 <input type="checkbox"/> Non-FD trans/FD attend 4 <input type="checkbox"/> Non-emergency transfer 0 <input type="checkbox"/> Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NFIRS-6 Revision 01/01/04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CHAPTER 8 • EMS MODULE (NFIRS-6)

The EMS Module is an optional module. It should be used when that option has been chosen by your State or local authorities.

- ☛ This module is completed only if the fire department provides emergency medical service. If an independent provider performs EMS, do not use this module.

The purpose of the EMS Module is to gather basic data as it relates to the provision of emergency medical care to the community. It may be used by both responding EMS unit(s) and responding fire suppression unit(s) that provide emergency medical services. This module does not include patient care information. The data collected from this form are incident based not patient based.

The EMS Module is not intended to replace or otherwise interfere with State or local EMS patient care reporting requirements. Instead, it is the intent that the data elements contained in this module be viewed as “core elements” and be included in the design of upgrades or new EMS data collection systems.

The EMS Module may be completed when an Incident Type 100–243, 311, 321–323, 351–381, 400–431, 451, or 900 is reported in Section C of the Basic Module (NFIRS-1).

- ☛ If the EMS is a fire casualty, completion of a separate Fire Service Casualty Module (NFIRS-5) is required.

SECTION A

The guidance and directions for completing Section A of the EMS Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the EMS Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If the casualty resulted from an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous EMS Module or a deletion of all information regarding that patient.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this EMS patient and now want to have the data on this patient deleted from the database. If this box is marked, complete Section A, the Patient Number originally assigned (Section B), and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Number of Patients

Definition

Total number of patients who were treated by fire department emergency responders at the EMS incident.

Purpose

Fire departments can track the number of patients they treated at each EMS incident and identify how many EMS Modules should be completed for the incident (one per patient).

Entry

Enter the total number of patients.

- ☛ Complete a separate EMS Module for each patient treated.

Example

Two people were injured in a bicycle accident:

| | | |
|--------------------------------------|--------------------------------|-------------------------------|
| B | Number of Patients | Patient Number ☆ |
| | <input type="text" value="2"/> | <input type="text" value=""/> |
| Use a separate form for each patient | | |

Patient Number ☆

Definition

A unique number is assigned to each patient treated at a single EMS incident.

Purpose

The patient number identifies each EMS patient separately in the EMS file. Data and other information concerning the patient can be accessed using this number in conjunction with other unique field information.

Entry

Enter the identification number assigned to this patient. A separate Patient Number is assigned to each EMS patient. The first patient is always coded “001,” and each succeeding patient is numbered sequentially and incremented by 1 beginning with “002.” The three-character numeric field is zero filled, not right justified.

Example

Three patients needed medical attention in the wrecked automobile; this report is for patient number two:

| | | |
|--------------------------------------|--------------------------------|----------------------------------|
| B | Number of Patients | Patient Number ☆ |
| | <input type="text" value="3"/> | <input type="text" value="002"/> |
| Use a separate form for each patient | | |

SECTION C

C Date and Time Arrived at Patient and Time of Patient Transfer*Definitions*

Time arrived at patient. The time when the fire department's emergency personnel established direct contact with the patient.

Time of patient transfer. The time when the response unit physically left the scene to transport the patient to an emergency care facility or the time when the patient was transferred to another care provider.

Purpose

This information is needed to analyze time spent providing patient care on the scene of an incident. If the Apparatus/Personnel Module (NFIRS-9/-10) is also used, then this element can document situations when there is a significant delay between the time the response unit arrives on the scene and the time at which personnel can access the patient.

Entry

For each incident, enter the dates (mm/dd/yyyy) and times of day (using the 24-hour clock) when emergency personnel arrived at the patient and when the patient was transferred to another care provider. Midnight is 0000 and signifies the start of a new day.

- ☛ If the date(s) is the same as the Alarm date (Block E1, Basic Module), check the box(es) and enter only the time of day.

Example

The fire department BLS unit arrived at the patient at 0105 on July 2, 2002. The patient was transferred to the hospital 14 minutes later at 0199:

| | | | | | |
|---|---|---------------|-------------|------------------|----------------------|
| C Date/Time Check if same date as Alarm date → | <input type="checkbox"/> Time Arrived at Patient | Month 0 7 | Day 0 2 | Year 2 0 0 2 | Hour/Min 0 1 0 5 |
| | <input type="checkbox"/> Time of Patient Transfer | 0 7 | 0 2 | 2 0 0 2 | 0 1 1 9 |

SECTION D

D Provider Impression/Assessment ☆*Definition*

The emergency care provider's primary clinical assessment that led to the management (treatments, medications, procedures) given to the patient.

Purpose

This element identifies whether the treatments or medications provided were consistent with the protocols related to the clinical impression.

The ☆ denotes a required field.

Entry

Check or mark the box (one only) that best describes the emergency provider's impression/assessment. When more than one choice is applicable to the patient, choose the single most significant clinical assessment that drove the choice of treatment. Check or mark the None/No Patient or Refused Treatment box when there is no patient upon arrival or if the patient refused treatment.

Example

The patient suffered a traumatic injury as a result of a bicycle fall (38):

| D Provider Impression/Assessment ☆ Check one box only | | | | ☐ None/no patient or refused treatment | |
|---|--------------------------|---------------------|----|--|-----------------------|
| 10 | <input type="checkbox"/> | Abdominal pain | 18 | <input type="checkbox"/> | Chest pain |
| 11 | <input type="checkbox"/> | Airway obstruction | 19 | <input type="checkbox"/> | Diabetic symptom |
| 12 | <input type="checkbox"/> | Allergic reaction | 20 | <input type="checkbox"/> | Do not resuscitate |
| 13 | <input type="checkbox"/> | Altered LOC | 21 | <input type="checkbox"/> | Electrocution |
| 14 | <input type="checkbox"/> | Behavioral/psych | 22 | <input type="checkbox"/> | General illness |
| 15 | <input type="checkbox"/> | Burns | 23 | <input type="checkbox"/> | Hemorrhaging/bleeding |
| 16 | <input type="checkbox"/> | Cardiac arrest | 24 | <input type="checkbox"/> | Hyperthermia |
| 17 | <input type="checkbox"/> | Cardiac dysrhythmia | 25 | <input type="checkbox"/> | Hypothermia |
| | | | 26 | <input type="checkbox"/> | Hypovolemia |
| | | | 27 | <input type="checkbox"/> | Inhalation injury |
| | | | 28 | <input type="checkbox"/> | Obvious death |
| | | | 29 | <input type="checkbox"/> | OD/poisoning |
| | | | 30 | <input type="checkbox"/> | Pregnancy/OB |
| | | | 31 | <input type="checkbox"/> | Respiratory arrest |
| | | | 32 | <input type="checkbox"/> | Respiratory distress |
| | | | 33 | <input type="checkbox"/> | Seizure |
| | | | 34 | <input type="checkbox"/> | Sexual assault |
| | | | 35 | <input type="checkbox"/> | Sting/bite |
| | | | 36 | <input type="checkbox"/> | Stroke/CVA |
| | | | 37 | <input type="checkbox"/> | Syncope |
| | | | 38 | <input checked="" type="checkbox"/> | Trauma |
| | | | 00 | <input type="checkbox"/> | Other |

PROVIDER IMPRESSION/ASSESSMENT CODES

- 10 Abdominal pain. Includes an acute or painful abdomen and cramps. Excludes abdominal trauma (38).
- 11 Airway obstruction. Includes choking, swelling of the neck, croup, epiglottitis, and a foreign body in the air way.
- 12 Allergic reaction. Includes reaction to drugs, plants, and insects. Reactions include hives, urticaria, and wheezing. Excludes stings and venomous bites (35).
- 13 Altered level of consciousness. Includes patients who appear to be substance abusers or under the influence of drugs or alcohol.
- 14 Behavioral: mental status, psychiatric disorder. Includes all situations in which a behavioral or psychiatric problem is considered the major problem for the EMS provider.
- 15 Burns.
- 16 Cardiac arrest.
- 17 Cardiac dysrhythmia. Includes any rhythm disturbance that was noted on the physical examination or with a cardiac monitor when the rhythm was the major clinical reason for care rendered by the EMS responder.
- 18 Chest pain. Includes patients with chest pain related to heart disease, upset stomach, or muscle pain in the chest wall.
- 19 Diabetic symptom, related to history of diabetes. Includes hypoglycemia, ketoacidosis, and other complications of diabetes.
- 20 Do not resuscitate. Use when there is a legal requirement to prevent emergency medical personnel from initiating CPR.
- 21 Electrocution.
- 22 General illness.
- 23 Hemorrhaging/Bleeding. Includes vaginal bleeding, GI bleeding, and epistaxis. When pregnancy is involved, only use bleeding if this is the major concern to the EMS responder.
- 24 Hyperthermia.
- 25 Hypothermia. Usually relates to environmental hypothermia, such as following submersion in cold water, avalanches, or other environmental exposures.
- 26 Hypovolemia. Includes patients with clinical shock, usually felt to be hypovolemic.
- 27 Inhalation injury, toxic gases. Includes smoke inhalation. Excludes overdose and poisoning (29).

- 28 Obvious death. Patients who were dead upon arrival and no therapy was undertaken.
- 29 Overdose/Poisoning. Includes taking inappropriate drugs, overdosing, and poisoning from chemicals. Excludes inhalation of toxic gases (27).
- 30 Pregnancy/OB. Includes all aspects of obstetric care rendered in the pre-hospital setting.
- 31 Respiratory arrest. Includes incidents where the patient stops breathing and requires ventilatory support on at least a temporary basis.
- 32 Respiratory distress. Includes patients who have only spontaneous breathing.
- 33 Seizure. Includes major and minor seizures.
- 34 Apparent sexual assault or rape.
- 35 Sting/Bite. Includes poisonous snakes, insects, bees, wasps, ants, etc. If an allergic reaction occurs, use code 12.
- 36 Stroke, cerebrovascular accidents (CVA), or transient ischemic attack (TIA).
- 37 Syncope, fainting.
- 38 Trauma. Excludes abdominal pain (10).
- 00 Provider impression/assessment, other.
- NN None/No patient or refused treatment.

SECTION E

E¹ Age or Date of Birth

Enter either the patient's age or the patient's date of birth. Do not enter both.

Age*Definition*

The patient's age in years or, if the patient is an infant, the age in months.

Purpose

The age of the patient provides an indication of fire loss. Age can also be used to indicate type, severity, and cause of illness/injury to identify trends and patterns that might be helpful in planning injury prevention techniques.

Entry

Enter the age of the patient. Estimate the age if it cannot be determined. If the age is calculated in months, check or mark the Months (for Infants) box.

Example

The patient was 87 years old:

| | | |
|---|--------------------------|----------------------|
| E¹ Age or Date of Birth | | |
| 8 7 | <input type="checkbox"/> | Months (for infants) |
| Age | | |
| OR | | |
| | | |
| Month | Day | Year |

Date of Birth

Definition

The month, day, and year of birth of the patient.

Purpose

This data entry is an alternative entry to Age. It can provide an indication of fire loss, and can be used to indicate type, severity, and cause of illness/injury to identify trends and patterns that might be helpful in planning injury prevention techniques.

- ☛ This data element is used as an alternate method for calculating the patient's age. Age is collected in NFIRS but Date of Birth is not.

Entry

Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

Example

The patient was born on January 7, 1910:

| E1 Age or Date of Birth | | | |
|-------------------------|----------------------|--------------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="checkbox"/> | Months (for infants) |
| Age | | | |
| OR | | | |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Month | Day | Year | |

E² Gender

Definition

The identification of the patient as male or female.

Purpose

This entry assists in identifying the individual and for tracking trends and patterns.

Entry

Check or mark the box that indicates the patient's gender.

Example

The patient was a male (1):

| E2 Gender | |
|--|-----------------------------------|
| 1 <input checked="" type="checkbox"/> Male | 2 <input type="checkbox"/> Female |

GENDER CODES

- 1 Male.
- 2 Female.

SECTION F

F¹ Race*Definition*

The identification of the race of the patient, based on U.S. Office of Management and Budget (OMB) designations.

Purpose

This entry is useful for the study of diseases and important to data systems in order to obtain certain Federal or State funds that are directed toward specific racial groups.

Entry

Check or mark the appropriate box. If race cannot be determined, check or mark the Undetermined box.

☛ Hispanic is not considered a race, because a person can be black and Hispanic, white and Hispanic, etc.

Example

The patient was a white male (1):

| F ¹ Race | |
|---------------------|--|
| 1 | <input checked="" type="checkbox"/> White |
| 2 | <input type="checkbox"/> Black, African American |
| 3 | <input type="checkbox"/> American Indian, Alaska Native |
| 4 | <input type="checkbox"/> Asian |
| 5 | <input type="checkbox"/> Native Hawaiian, Other Pacific Islander |
| 0 | <input type="checkbox"/> Other, multiracial |
| U | <input type="checkbox"/> Undetermined |

RACE CODES

- 1 White.
- 2 Black or African American.
- 3 American Indian or Alaska Native.
- 4 Asian.
- 5 Native Hawaiian or other Pacific Islander.
- 0 Other. Includes multiracial.
- U Undetermined Ethnicity.

F² Ethnicity

Definition

Identifies the ethnicity of the patient. Ethnicity is an ethnic classification or affiliation. Ethnicity designates a population subgroup having a common cultural heritage, as distinguished by customs, characteristics, language, common history, etc. Currently, Hispanic/Latino is the only OMB designation for ethnicity.

Purpose

This entry permits an analysis of patients by ethnicity with type, severity, and cause of injury to identify trends and patterns that might be helpful in planning injury prevention techniques. It is also useful for studies of diseases and important to data systems in order to obtain certain Federal or State funds that are directed toward specific ethnic groups.

Entry

Check or mark the appropriate box.

Example

The patient was an Hispanic (1):

| | |
|----------------------|--|
| F₂ | Ethnicity |
| 1 | <input checked="" type="checkbox"/> Hispanic or Latino |
| 0 | <input type="checkbox"/> Non Hispanic or Latino |

ETHNICITY CODES

- | | |
|---|-------------------------|
| 1 | Hispanic or Latino. |
| 0 | Non Hispanic or Latino. |

SECTION G

Entries in this section collect information on the factors that contributed to the injury of the patient.

G Human Factors Contributing to Injury

☛ Human Factors Contributing to Injury was known as Condition Before Injury in NFIRS 4.1.

Definition

The physical or mental state of the person shortly before becoming a patient.

Purpose

This is an important data element for injury research used by public health researchers and policymakers. It is also useful for understanding the relationship between human factors and incident type, such as automobile accidents where the driver was “possibly impaired by alcohol.”

Entry

Check or mark all the applicable boxes describing the human factors that contributed to the patient's injury. If no human factor was involved, check or mark the None box.

Example

A cigarette burned the patient after she fell asleep (1):

| | | |
|----------------------------|---|-------------------------------|
| G1 | Human Factors Contributing to Injury | <input type="checkbox"/> None |
| Check all applicable boxes | | |
| 1 | <input checked="" type="checkbox"/> Asleep | |
| 2 | <input type="checkbox"/> Unconscious | |
| 3 | <input type="checkbox"/> Possibly impaired by alcohol | |
| 4 | <input type="checkbox"/> Possibly impaired by drug | |
| 5 | <input type="checkbox"/> Possibly mentally disabled | |
| 6 | <input type="checkbox"/> Physically disabled | |
| 7 | <input type="checkbox"/> Physically restrained | |
| 8 | <input type="checkbox"/> Unattended person | |

HUMAN FACTORS CONTRIBUTING TO INJURY CODES

| | |
|---|---|
| 1 | Asleep, no known impairment. |
| 2 | Unconscious. |
| 3 | Possibly impaired by alcohol. |
| 4 | Possibly impaired by other drug or chemical. |
| 5 | Possibly mentally disabled. |
| 6 | Physically disabled. Includes temporary conditions or overexertion. |
| 7 | Physically restrained. |
| 8 | Unattended or unsupervised person. Includes persons too young/old to act. |
| N | None. |

G² Other Factors

Definition

Factors contributing to the patient's injury other than those covered by Human Factors (Block G1).

☛ If the response was to an illness instead of an injury, skip to Block H3.

Purpose

This is an important data element for injury research used by public health researchers and policymakers. This information is useful in determining the need for special training and safety precautions. It also helps identify trends and patterns such as the trend of inflicted (hostile) injuries over an extended period of time.

Entry

Check or mark the appropriate box. If the three codes are not applicable, check or mark the None box.

Example

A dog attacked the patient (3):

| | | |
|--|---|-------------------------------|
| G2 | Other Factors | <input type="checkbox"/> None |
| <div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: fit-content;"> If an illness, not an injury, skip G2 and go to H3 </div> | | |
| 1 | <input type="checkbox"/> Accidental | |
| 2 | <input type="checkbox"/> Self-inflicted | |
| 3 | <input checked="" type="checkbox"/> Inflicted, not self | |

OTHER FACTORS CODES

- | | |
|---|---|
| 1 | Accidental. |
| 2 | Self-inflicted. |
| 3 | Inflicted, not self-inflicted. Includes attacks by animals and persons. |
| N | None. |

SECTION H

This section collects information cause, type and location of the patient's injury.

H¹ Body Site of Injury

☛ Body Site of Injury was known as Part of Body Injured in NFIRS 4.1

Definition

The area of the body that sustained the injury. This field is designed to be used in conjunction with Injury Type (Block H2).

Purpose

When combined with Injury Type and Cause of Injury, this entry provides useful data for EMS planners to track patient's injuries that required the use of the EMS system.

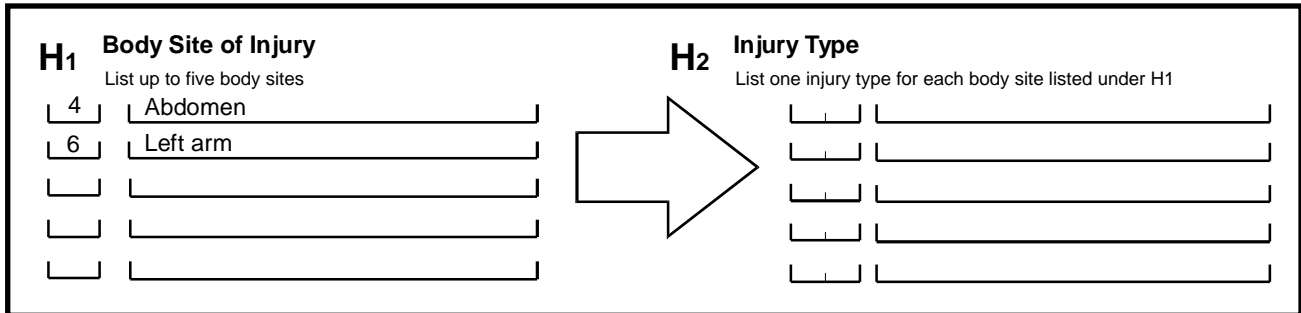
Entry

Enter up to five parts of the body where injuries occurred. List the body site with the most serious injury first. If the patient is suffering from an illness and not an injury, skip to Block H3.

- ☛ This data element should reflect the clinical impression of the injury by the EMS responder, not necessarily the final or correct diagnosis.
- ☛ Each Body Site entered should have an associated Injury Type (Block H2). There is a one-to-one correspondence between Body Site and Injury Type.

Example

The patient’s abdomen (4) and left arm (6) were injured in the accident:



BODY SITE OF INJURY CODES

- 1 Head.
- 2 Neck and shoulder.
- 3 Thorax. Includes chest and back. Excludes spine (5).
- 4 Abdomen.
- 5 Spine. Excludes back (3).
- 6 Upper extremities. Includes arms and hands.
- 7 Lower extremities. Includes legs and feet.
- 8 Internal.
- 9 Multiple body parts.

H² Injury Type

Definition

The clinical description of the injury received by the patient.

Purpose

When combined with Body Site and Cause of Injury, this element enables EMS planners to analyze the types of injuries treated by EMS responders. This entry can be correlated with other data collected in the Basic and EMS Modules to provide useful information for tracking trends and reducing injuries. When used in conjunction with follow-up patient information, this data element is valuable in assessing the correlation between injury assessment in the field and actual injuries as evaluated in medical facilities.

Entry

Enter a description of the primary injuries sustained by a patient for each part of the body listed in Block H1. The first Injury Type is associated with the first Body Site of Injury listed in Block H1, the second type with the second site, etc. Then select and record the appropriate code number for injury type recorded. If the patient is suffering from an illness and not an injury, skip to Block H3.

- Each Injury Type entered should have an associated Body Site (Block H2). There is a one-to-one correspondence between Injury Type and Body Site.

Example

The patient had a laceration on the abdomen (16) and a fracture of the upper left arm (14):

| H1 | Body Site of Injury | H2 | Injury Type |
|----|----------------------------|-----|---|
| | List up to five body sites | | List one injury type for each body site listed under H1 |
| 4 | Abdomen | 1 6 | Laceration |
| 6 | Left arm | 1 4 | Fracture |
| | | | |
| | | | |
| | | | |

INJURY TYPE CODES

- 10 Amputation.
- 11 Blunt injury.
- 12 Burn.
- 13 Crush.
- 14 Dislocation/Fracture.
- 15 Gunshot.
- 16 Laceration.
- 17 Pain without swelling.
- 18 Puncture/Stab.
- 19 Soft tissue swelling.
- 00 Injury type, other.

H³ Cause of Illness/Injury

Definition

The physical event that caused the injury or illness.

Purpose

When combined with Body Site and Type of Injury, this element permits an understanding of the conditions causing injury or illness and provides a means of developing strategies to reduce injuries and sudden illnesses.

Entry

Enter the two-digit code that indicates the immediate cause or condition responsible for the injury or illness.

Example

The cause of the patient's injuries was a fall from a bicycle (15):

| | |
|-------------------------|------------------------------------|
| H3 | Cause of Illness/Injury |
| 1 | 5 |
| Cause of illness/injury | |
| Bicycle related | |

CAUSE OF ILLNESS/INJURY CODES

- 10 Chemical exposure. Includes accidental poisoning by solid or liquid substances, gases, and vapors, which are not included under accidental drug poisoning (11).
- 11 Drug poisoning. Includes accidental poisoning by drugs, medicinal substances, or biological products.
- 12 Fall. Excludes falls that occur in the context of other external causes of injury, such as fires, falling off boats, or falling in accidents involving machinery in operation.
- 13 Aircraft-related accident. Includes spacecraft.
- 14 Bite. Includes animal bites, including non-venomous snakes and lizards. Excludes venomous stings (36).
- 15 Bicycle accident. Includes any pedal cycle accident. Pedal cycle is defined to include bicycles and tricycles. Excludes motor vehicle or motorbike accidents.
- 16 Building collapse/construction accident. Includes all accidents on construction sites. Not to be used for specific mechanism of injury (e.g., "Fall").
- 17 Drowning, not related to watercraft use. Includes swimming accidents, bathtubs, etc.
- 18 Electrical shock. Includes accidents related to electric current from exposed wires, faulty appliances, high-voltage cables, live rails, or open electric sockets. Excludes lightning (26).
- 19 Cold. Includes cold injuries due to weather exposure or cold produced by man, such as in a freezer.
- 20 Heat. Includes thermal injuries related to weather or heat produced by man, such as in a boiler room or factory. Excludes heat injury from conflagration (22).
- 21 Explosives. Includes all injuries related to explosives. Excludes fireworks (25).
- 22 Fire and flames. Includes burning by fire, asphyxia or poisoning from conflagration or ignition, and fires secondary to explosions.
- 23 Firearm. Includes accidental and purposeful firearm injuries.
- 25 Fireworks. Injuries caused by pyrotechnics designed for or used for display purposes. Includes consumer fire works.
- 26 Lightning. Excludes falling objects as a result of lightning and injuries from fires that are a result of lightning.
- 27 Machinery. Includes machinery accidents except when machinery is not in operation. Excludes electrocution (18).
- 28 Mechanical suffocation. Includes suffocation in bed or cradle (crib death), closed space suffocation, plastic bag asphyxia, and accidental hanging.
- 29 Motor vehicle accident. Includes any motor vehicle accident occurring on or off a public roadway or highway.
- 30 Motor vehicle accident, pedestrian. Motor vehicle accidents in which the patient was a pedestrian struck by a motor vehicle of any type. Includes individuals on skates, in baby carriages, in wheelchairs, on skateboards, and on skis.

- 31 Non-traffic vehicle accident. Includes any motor vehicle accident occurring entirely off public roadways or highways. For instance, an accident involving an all-terrain vehicle (ATV) in an off-road location would be a non-traffic accident.
- 32 Physical assault/abuse. Includes all forms of battering and non-accidental injury to patients.
- 33 Scalds/Other thermal. Includes all burn injuries resulting from hot liquids or steam.
- 34 Smoke inhalation. Includes smoke and fume inhalation from fire.
- 35 Stabbing assault. Includes cuts, punctures, or stabs of any part of the body.
- 36 Venomous sting. Includes bites and stings from venomous snakes, lizards, spiders, scorpions, insects, marine life, or plants. For animal bite, use 14.
- 37 Water transport. Includes all accidents related to watercraft. Excludes drowning and submersion accidents (17) unless they are related to watercraft use. Thus, if a person falls out of a boat and drowns, it should be coded within this category. If a person drowns in a swimming pool or bathtub, it should be coded as "Drowning."
- 00 Cause of illness/injury, other.
- UU Unknown. Includes situations when data cannot be accurately reconstructed from the run record.

SECTION I

I Procedures Used

Definition

The nature of the procedures attempted or performed on a patient by emergency personnel. The term procedures include anything done by way of assessment or treatment of the patient.

Purpose

Planners and educators use this information to determine which procedures are conducted in the field, by whom, and for what indications. This information can also help determine the equipment and supplies needed by emergency responders.

Entry

Check or mark all applicable boxes. If no treatment was provided, check only the No Treatment box.

Example

A laceration was bandaged to control bleeding (04), and a fractured arm was splinted (23):

| | Procedures Used | Check all applicable boxes | ☐ No treatment |
|----|---|----------------------------|--|
| 01 | <input type="checkbox"/> Airway insertion | 14 | <input type="checkbox"/> Intubation (EGTA) |
| 02 | <input type="checkbox"/> Anti-shock trousers | 15 | <input type="checkbox"/> Intubation (ET) |
| 03 | <input type="checkbox"/> Assist ventilation | 16 | <input type="checkbox"/> IO/IV therapy |
| 04 | <input checked="" type="checkbox"/> Bleeding control | 17 | <input type="checkbox"/> Medications therapy |
| 05 | <input type="checkbox"/> Burn care | 18 | <input type="checkbox"/> Oxygen therapy |
| 06 | <input type="checkbox"/> Cardiac pacing | 19 | <input type="checkbox"/> OB care/delivery |
| 07 | <input type="checkbox"/> Cardioversion (defib) manual | 20 | <input type="checkbox"/> Prearrival instructions |
| 08 | <input type="checkbox"/> Chest/abdominal thrust | 21 | <input type="checkbox"/> Restrain patient |
| 09 | <input type="checkbox"/> CPR | 22 | <input type="checkbox"/> Spinal immobilization |
| 10 | <input type="checkbox"/> Cricothyroidotomy | 23 | <input checked="" type="checkbox"/> Splinted extremities |
| 11 | <input type="checkbox"/> Defibrillation by AED | 24 | <input type="checkbox"/> Suction/aspirate |
| 12 | <input type="checkbox"/> EKG monitoring | 00 | <input type="checkbox"/> Other |
| 13 | <input type="checkbox"/> Extrication | | |

PROCEDURES USED CODES

| | |
|----|---|
| 01 | Airway insertion. |
| 02 | Anti-shock trousers. |
| 03 | Assist ventilation. |
| 04 | Bleeding control. |
| 05 | Burn care. |
| 06 | Cardiac pacing. |
| 07 | Cardioversion (defibrillation), manual. |
| 08 | Chest/Abdominal thrust. |
| 09 | CPR. |
| 10 | Cricothyroidotomy. |
| 11 | Defibrillation by AED. |
| 12 | EKG monitoring. |
| 13 | Extrication. |
| 14 | Intubation (EGTA). |
| 15 | Intubation (ET). |
| 16 | IO/IV therapy. |
| 17 | Medications therapy. |
| 18 | Oxygen therapy. |
| 19 | Obstetrical care/delivery. |
| 20 | Preadmission instructions. |
| 21 | Restrained patient. |
| 22 | Spinal immobilization. |
| 23 | Splinted extremities. |
| 24 | Suction/Aspirate. |
| 00 | Procedures used, other. |
| NN | No treatment. |

SECTION J**J Safety Equipment***Definition*

The types of safety equipment in use by the patient at time of injury.

Purpose

This element provides important information about safety devices used. The data can be used with police reports concerning collisions, tracking various trends and patterns, and determining the focus of public education campaigns.

Entry

Check or mark all applicable boxes to indicate the safety equipment that was in use. If no safety equipment was used, check or mark the None box.

Example

The patient was wearing a helmet when the bicycle accident occurred (4):

Example on next page

| | | |
|----------|---|-------------------------------|
| J | Safety Equipment | <input type="checkbox"/> None |
| | Used or deployed by patient. Check all applicable boxes. | |
| 1 | <input type="checkbox"/> Safety/seat belts | |
| 2 | <input type="checkbox"/> Child safety seat | |
| 3 | <input type="checkbox"/> Airbag | |
| 4 | <input checked="" type="checkbox"/> Helmet | |
| 5 | <input type="checkbox"/> Protective clothing | |
| 6 | <input type="checkbox"/> Flotation device | |
| 0 | <input type="checkbox"/> Other | |
| U | <input type="checkbox"/> Undetermined | |

SAFETY EQUIPMENT CODES

| | |
|---|--------------------------|
| 1 | Safety, seat belts. |
| 2 | Child safety seat. |
| 3 | Airbag. |
| 4 | Helmet. |
| 5 | Protective clothing. |
| 6 | Flotation device. |
| 0 | Safety equipment, other. |
| N | None. |
| U | Undetermined. |

SECTION K

This section is completed only if the patient went into or was found in cardiac arrest.

K Cardiac Arrest

When Cardiac Arrest Occurred

Definition

When the cardiac arrest occurred in relation to the arrival of fire department's EMS personnel and whether CPR was performed before EMS personnel arrived.

Purpose

The effectiveness of bystander CPR on morbidity (or patient outcome) on a cardiac arrest patient can be determined.

Entry

Check or mark all applicable boxes. The intent here is to determine whether it was a pre-arrival or post-arrival arrest. If it was a pre-arrival arrest, check whether it was witnessed or whether bystander CPR was performed.

Example

The patient went into cardiac arrest while eating dinner (1) and a bystander witnessed the incident and initiated CPR (2):

| | |
|----------|--|
| K | Cardiac Arrest |
| | Check all applicable boxes |
| 1 | <input checked="" type="checkbox"/> Pre-arrival arrest? |
| | If pre-arrival arrest, was it: |
| 1 | <input checked="" type="checkbox"/> Witnessed? |
| 2 | <input checked="" type="checkbox"/> Bystander CPR? |
| 2 | <input type="checkbox"/> Post-arrival arrest? |
| | Initial Arrest Rhythm |
| 1 | <input type="checkbox"/> V-Fib/V-Tach |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

CARDIAC ARREST CODES

- 1 Pre-arrival arrest.
- 2 Post-arrival arrest.

PRE-ARRIVAL DETAILS CODES

- 1 Witnessed.
- 2 Bystander CPR.

Initial Arrest Rhythm*Definition*

The patient's initial heart arrest rhythm as measured by the fire department's EMS personnel with an EKG monitor.

Purpose

This element tracks trends and patterns in the types and the survival of cardiac patients.

Entry

Check or mark the appropriate box.

Example

The patient's arrest rhythm was V-Tach (1):

Example on next page

| | |
|----------|---|
| K | Cardiac Arrest |
| | Check all applicable boxes |
| 1 | <input checked="" type="checkbox"/> Pre-arrival arrest? |
| | If pre-arrival arrest, was it: |
| 1 | <input checked="" type="checkbox"/> Witnessed? |
| 2 | <input checked="" type="checkbox"/> Bystander CPR? |
| 2 | <input type="checkbox"/> Post-arrival arrest? |
| | Initial Arrest Rhythm |
| 1 | <input checked="" type="checkbox"/> V-Fib/V-Tach |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Undetermined |

INITIAL ARREST RHYTHM CODES

| | |
|---|-------------------------------|
| 1 | V-Fib/V-Tach. |
| 0 | Initial arrest rhythm, other. |
| U | Undetermined. |

SECTION L

This section collects information on the level of training of the fire department responder who treated the patient and the level of care the responder provided.

L¹ Initial Level of Provider ☆

Definition

The certified training level of the first fire department responder(s) to treat the patient.

Purpose

This element aids researchers in identifying trends of pre-hospital care delivered by the fire service. This information may also aid researchers in evaluating the effect of pre-hospital CPR and cardiac care on morbidity (or patient outcomes).


Entry

Check or mark the box that best describes the level of care the first responder was trained to provide as certified by the fire department or State.

Example

The first fire department responder to arrive on the scene and treat the patient was a first responder (1):

Example on next page

| L1 Initial Level of Provider  | |
|--|---|
| 1 | <input checked="" type="checkbox"/> First Responder |
| 2 | <input type="checkbox"/> EMT-B (Basic) |
| 3 | <input type="checkbox"/> EMT-I (Intermediate) |
| 4 | <input type="checkbox"/> EMT-P (Paramedic) |
| 0 | <input type="checkbox"/> Other provider |
| N | <input type="checkbox"/> No training |

INITIAL LEVEL OF PROVIDER CODES

| | |
|---|---|
| 1 | First responder. |
| 2 | EMT-B (Basic). |
| 3 | EMT-I (Intermediate). |
| 4 | EMT-P (Paramedic). |
| 0 | Other health care provider. Includes doctor, nurses, etc. |
| N | No training. |

L² Highest Level of Care Provided on Scene

Definition

The highest level of fire department care that the patient received at the scene of the EMS incident.

Purpose

This element determines the personnel and equipment requirements for handling EMS incidents. This information may also aid researchers in evaluating the effect of pre-hospital care on morbidity (or patient outcome).

Entry

Check or mark the box that indicates the highest level of care provided at the scene by the fire department. If no care was provided, check or mark the None box.

Example

The fire department provided intermediate-level treatment at the scene (3):

| L2 Highest Level of Care Provided On Scene | | <input type="checkbox"/> None |
|--|--|-------------------------------|
| 1 | <input type="checkbox"/> First Responder | |
| 2 | <input type="checkbox"/> EMT-B (Basic) | |
| 3 | <input checked="" type="checkbox"/> EMT-I (Intermediate) | |
| 4 | <input type="checkbox"/> EMT-P (Paramedic) | |
| 0 | <input type="checkbox"/> Other provider | |

HIGHEST LEVEL OF CARE PROVIDED ON SCENE CODES

- 1 First responder.
- 2 EMT-B (Basic).
- 3 EMT-I (Intermediate).
- 4 EMT-P (Paramedic).
- 0 Other health care provider. Includes doctors, nurses, etc.
- N No care provided.

SECTION M**M Patient Status***Definition*

The overall change in the status of the patient as recorded at the time responsibility for the patient is transferred to another agency.

Purpose

This element is used to track trends and patterns in relation to the status of the patient at the time of transfer. This entry can also be correlated with other data collected in the EMS module to evaluate pre-hospital care and its influence on patient outcomes.

Entry

Check or mark the box that best describes the patient's status when he/she was transferred to another agency for care as compared to the patient's status when the fire department began treatment.

☛ Remember to check or mark the box indicating whether or not the patient had a Pulse on Transfer.

Example

The patient's status worsened as the incident progressed (3); by the time he was transferred to hospital care, he had no pulse (2):

| M Patient Status | |
|-------------------------|--|
| 1 | <input type="checkbox"/> Improved |
| 2 | <input type="checkbox"/> Remained same |
| 3 | <input checked="" type="checkbox"/> Worsened |
| Check if: | |
| 1 | <input type="checkbox"/> Pulse on transfer |
| 2 | <input checked="" type="checkbox"/> No pulse on transfer |

PATIENT STATUS CODES

- 1 Improved.
- 2 Remained same.
- 3 Worsened.

PULSE ON TRANSFER CODES

- 1 Pulse on transfer.
- 2 No pulse on transfer.

SECTION N**N EMS Disposition***Definition*

A description of whether or not the patient was transported from the scene and, if transported, who provided the transport.

Purpose

This element is used to correlate the initial call for service with the final actions in the field by providers. For instance, it may be valuable to know how often EMS is activated for patients who require no treatment or transport. Reports generated from this data element may be of use in coordinating the dispatch and responder functions.

Entry

Check or mark the box that describes the disposition of the patient. Check or mark the Not Transported box if the patient was not removed from the scene.

Example

The patient was transported to the hospital by the fire department (1):

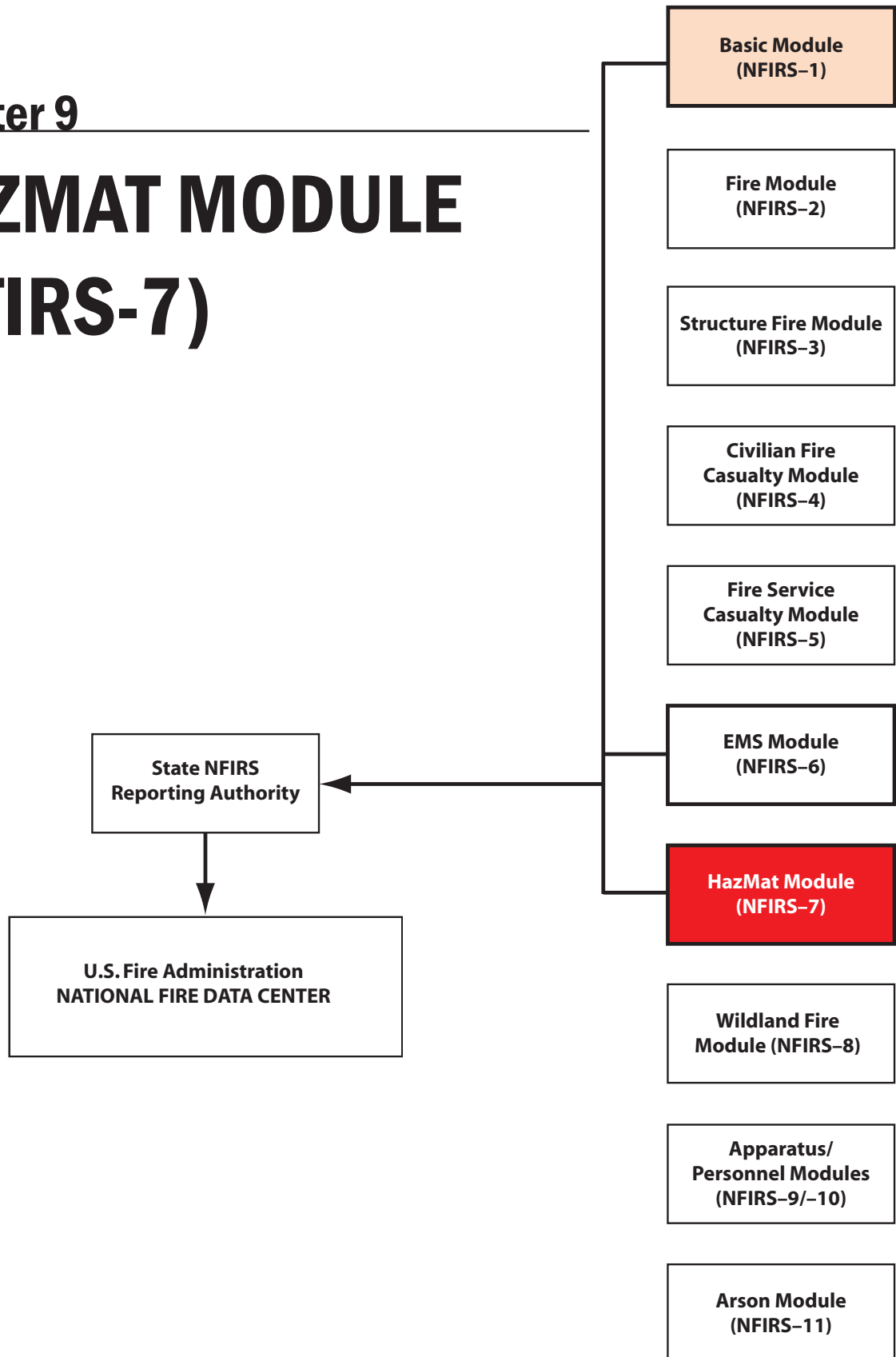
| | | |
|----------|--|--|
| N | EMS Disposition | <input type="checkbox"/> Not transported |
| 1 | <input checked="" type="checkbox"/> FD transport to ECF | |
| 2 | <input type="checkbox"/> Non-FD transport | |
| 3 | <input type="checkbox"/> Non-FD trans/FD attend | |
| 4 | <input type="checkbox"/> Non-emergency transfer | |
| 0 | <input type="checkbox"/> Other | |

EMS DISPOSITION CODES

- 1 Fire department transport to emergency care facility (ECF). Includes situations where the EMS responder transports a patient to a rendezvous point for transfer to another EMS responder.
- 2 Non-fire department transport. Fire department EMS responder provided treatment at the scene, but the patient was transferred to the care of another service (at the scene).
- 3 Non-fire department transport with fire department attendant. Fire department EMS responder provided treatment or came upon the scene of a private provider giving treatment and assisted, then rode with the non-fire department transport to the ECF.
- 4 Non-emergency transfer. Includes interfacility transfers under non-emergency conditions.
- 0 EMS disposition, other.
- N Not transported by EMS.

Chapter 9

HAZMAT MODULE (NFIRS-7)



CHAPTER 9 • HAZARDOUS MATERIALS MODULE (NFIRS-7)

The Hazardous Materials (HazMat) Module is an optional module. It should be used when that option has been chosen by your State or local authorities.

The HazMat Module is used when the Other box in Block H3 (“Hazardous Materials Release”) of the Basic Module (NFIRS-1) has been checked. Its purpose is to document reportable HazMat incidents. Generally speaking, a reportable HazMat incident is when either:

1. Specialized HazMat resources were dispatched or used, or should have been dispatched or used, for assessing, mitigating, or managing the situation.

OR

2. Releases or spills of hazardous materials that exceed 55 gallons occur.

Nothing in this definition is meant to alter compliance with State or local HazMat reporting requirements. In States with mandatory reporting, the State reporting authority determines which optional modules (EMS, HazMat, Wildland, etc.) are to be submitted to the State.

The HazMat Module permits hazardous materials incidents to be thoroughly profiled for incident management analysis and response strategy development. It collects relevant information on:

- Hazardous materials identification.
- Container information.
- Release amounts and location.
- Actions taken.
- Mitigating factors.

In addition, aggregated data on hazardous materials incidents will provide invaluable information that can be used by policymakers who develop regulations for the storage, use, and transportation of hazardous materials. It can also be used to develop recommended guidance for emergency personnel response to HazMat incidents.

- ☛ If more than one HazMat was involved, one form is completed for each HazMat released. (The term *release* is intended to include spill.)

SECTION A

The guidance and directions for completing Section A of the HazMat Module are essentially the same as for Section A in the Basic Module. One additional field is included in Section A of the HazMat Module (Haz No.). It is stressed that the entries in Section A of the HazMat Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆*Entry*

Enter the same FDID number found in Section A of the Basic Module.

State ☆*Entry*

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆*Entry*

Enter the same incident date found in Section A of the Basic Module.

Station Number*Entry*

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆*Entry*

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆*Entry*

If the HazMat release was in connection with a fire incident and the release was in an exposure property, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

HazMat Number (Haz No.) ☆*Definition*

A unique HazMat number is assigned to each hazardous material involved in the incident.

Purpose

Distinguishes among multiple hazardous materials involved in the incident. Data and information concerning the HazMat can be accessed using this number in conjunction with other unique field information.

Entry

Enter the HazMat number for the particular HazMat reported on this module. A separate Haz No. is assigned to each HazMat involved. The first material is always coded “01,” and each succeeding material is numbered sequentially and incremented by 1 beginning with “02.” The two-character numeric field is zero filled, not right justified.

Example

An incident involving a release from two drums, where the first drum is filled with a flammable liquid and the second drum contains a weak acid. Since two hazardous materials are involved, two separate HazMat Modules are completed. The Haz No. for the first drum would be “01” and the second would be “02”:

| | | | | | | | | | | | |
|---|------|-------|----|----|------|---------------|---------|-----------------|----------|------------|---------------------------------|
| A | FDID | State | MM | DD | YYYY | Incident Date | Station | Incident Number | Exposure | Haz No. 01 | <input type="checkbox"/> Delete |
| | ☆ | ☆ | | | | ☆ | | ☆ | ☆ | ☆ | <input type="checkbox"/> Change |

Delete/Change

Definition

Indicates a change to information submitted on a previous HazMat Module or a deletion of all information regarding that specific HazMat release.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this HazMat release and now want to have the data on this release deleted from the database. If this box is marked, complete Section A, including the HazMat number assigned to this HazMat, and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this HazMat release to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B HazMat ID

The purpose of Section B is to identify the hazardous materials involved in an incident as specifically as possible. Several identification systems exist that can aid fire department personnel in identifying hazardous materials:

- UN Number
- DOT Hazard Classification
- CAS Registration Number
- Chemical Name

Identification of specific hazardous materials involved in fire or rescue incidents is a priority for emergency response personnel.

UN Number

Definition

A four-digit number assigned to the hazardous material that conforms to United Nations (UN) standards for the identification of hazardous materials in international transportation. In some cases, a single UN number will be assigned to several materials with similar properties. Not all hazardous materials have been assigned a UN number.

Purpose

Aggregate information on the identities of hazardous materials being released can reveal trends or patterns for particular materials or classes of materials. These trends may provide direction for policymakers, prevention efforts, and training curricula.

Entry

Enter the four-digit UN number assigned to the hazardous material. Leave the entry blank if a UN number has not been assigned.

These numbers may be found in a variety of reference materials, including USFA's *Hazardous Materials Guide for First Responders* and the *North American Emergency Response Guidebook (NAERG)*, published by the Research and Special Programs Administration, U.S. Department of Transportation (DOT). A list of commonly encountered materials is included in Appendix D.

Example

Enter the UN Number "1203" for a hazardous materials release involving gasoline:

| | | | | | | | | | | | | | | | | | |
|----------|-----------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------|---|----------------------|
| B | HazMat ID | <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="0"/> | <input type="text" value="3"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | Chemical | ☆ | <input type="text"/> |
| | | UN Number | DOT Hazard Classification | CAS Registration Number | | | | | | | | | | Chemical Name | | | |

DOT Hazard Classification

Definition

The Department of Transportation hazard classification describes the primary hazard associated with various categories of hazardous materials. The DOT hazard classification is intended for use on placards or labels during the transportation of hazardous materials. Since many materials have multiple hazards, these placards or labels may not describe all of the potential hazards faced by emergency responders at a HazMat incident.

Purpose

Aggregate information on the identities of hazardous materials being released can reveal trends or patterns for particular materials or classes of materials. These trends may provide direction for policymakers, prevention efforts, and training curricula.

Entry

Enter the two-digit code that corresponds with the hazard classification and division code as found on a placard or label, in the NAERG, or from the list below.

- The DOT Hazard Classification consists of a single-digit hazard class code, followed by a decimal point and a single-digit code for the division. For NFIRS data collection, this two-part hazard class/division code has been converted into a two-digit code.

Example

The HazMat release was a flammable liquid (30):

| | | | | | | | | | | | | |
|----------|-----------|---------------|---------------------------|-------------------------|--|--|--|--|--|--|-----------------|--|
| B | HazMat ID | 1 2 0 3 | 3 0 | | | | | | | | Chemical Name ☆ | |
| | | UN Number | DOT Hazard Classification | CAS Registration Number | | | | | | | | |

DOT HAZARD CLASSIFICATION CODES

Class 1 – Explosives

- 11 Division 1.1 – Explosives with mass explosion hazard.
- 12 Division 1.2 – Explosives with projectile hazard.
- 13 Division 1.3 – Explosives with predominant fire hazard.
- 14 Division 1.4 – Explosives with no significant blast hazard.
- 15 Division 1.5 – Very insensitive explosives; blasting agents.
- 16 Division 1.6 – Extremely insensitive detonating articles.

Class 2 – Gases

- 21 Division 2.1 – Flammable gases.
- 22 Division 2.2 – Non-flammable, non-toxic compressed gases.
- 23 Division 2.3 – Gases toxic by inhalation.
- 24 Division 2.4 – Corrosive gases (Canada).

Class 3 – Flammable Liquids (and Combustible Liquids (U.S.))

- 30 Flammable and combustible liquids.

Class 4 – Flammable Solids, Spontaneously Combustible Materials, and Dangerous-When-Wet Materials

- 41 Division 4.1 – Flammable solids.
- 42 Division 4.2 – Spontaneously combustible materials.
- 43 Division 4.3 – Dangerous-when-wet materials.

Class 5 – Oxidizers and Organic Peroxides

- 51 Division 5.1 – Oxidizers.
- 52 Division 5.2 – Organic peroxides.

Class 6 – Toxic Materials and Infectious Substances

- 61 Division 6.1 – Toxic materials.
- 62 Division 6.2 – Infectious substances.

Class 7 – Radioactive Materials

- 70 Radioactive materials.

Class 8 – Corrosive Materials

- 80 Corrosive materials.

Class 9 – Miscellaneous Dangerous Goods

- 91 Division 9.1 – Miscellaneous dangerous goods (Canada).
- 92 Division 9.2 – Environmentally hazardous substances (Canada).
- 93 Division 9.3 – Dangerous wastes (Canada).
- UU Undetermined.

CAS Registration Number*Definition*

The identification number assigned to a chemical by the Chemical Abstract Service (CAS) of the Chemical Abstract Society. Not all hazardous materials have an assigned CAS number.

Purpose

Aggregate information on the identities of hazardous materials being released can reveal trends or patterns for particular materials or classes of materials. These trends may provide direction for policymakers, prevention efforts, and training curricula.

Entry

Enter the number assigned by the CAS to the chemical. This number may be found in reference materials, on Material Safety Data Sheets (MSDSs), and on some product labels. A list of CAS numbers for commonly encountered chemicals is included in Appendix D. Leave the entry blank if a CAS registration number has not been assigned.

☛ Enter the number as it appears, including dashes.

Example

For gasoline, enter the CAS number “8006–61–9”:

| | | | | | | |
|----------|------------------|-----------------------------------|---------------------------------|--|------------------------|----------------------|
| B | HazMat ID | <input type="text" value="1203"/> | <input type="text" value="30"/> | <input type="text" value="8006-61-9"/> | Chemical Name ☆ | <input type="text"/> |
| | | UN Number | DOT Hazard Classification | CAS Registration Number | | |

Chemical Name ☆*Definition*

A standard chemical or trade name by which the hazardous material is commonly known. Products from different manufacturers with similar active chemical ingredients may have different trade names.

Purpose

Aggregate information on the identities of hazardous materials being released can reveal trends or patterns for particular materials or classes of materials. These trends may provide direction for policymakers, prevention efforts, and training curricula.

Entry

Enter the chemical or trade name of the hazardous material as shown on the MSDS, product label, packaging, or container.

Example

A common herbicide used for household applications may be entered by the trade name “Weed-B-Gone™,” or by the chemical name “2,4-Dichlorophenoxyacetic acid”:

| | | | | | | |
|----------|------------------|-----------|------------------------------|-------------------------|--------------------|--------------|
| B | HazMat ID | _____ | _____ | _____ | Chemical Name ☆ | Weed-B-Gone™ |
| | | UN Number | DOT Hazard Classification | CAS Registration Number | | |

- Those chemicals listed in the *Hazardous Materials Guide for First Responders*, published by the USFA, are also cross-referenced in Appendix D.

SECTION C

This section collects information on the type and capacity of the container involved in the HazMat release.

C¹ Container Type

Definition

The type or configuration of the container, equipment, or facility used to transport or store the hazardous material.

Purpose

Aggregate information on the types of containers involved in HazMat incidents may provide (1) guidance to regulators that establish container design requirements and (2) direction to prevention and code development efforts, emergency response training, and policymaking.

Entry

Enter the two-digit code for the container type. If no container was involved, check or mark the None box and skip to Block D1.

Example

The release was from a drum (11):

| | | | |
|---|--|-------------------------------|---|
| C¹ | Container Type | <input type="checkbox"/> None | |
| | <table border="1"> <tr> <td>1</td> <td>1</td> </tr> </table> Container Type | 1 | 1 |
| 1 | 1 | | |
| <div style="border: 1px solid black; padding: 5px; text-align: center;"> More hazardous materials? Use additional sheets. </div> | | | |

CONTAINER TYPE CODES

Portable Container. A container designed to be transported to a location and left there until emptied, when it may be disposed of or returned to a vendor for refill and reuse.

- 11 Drum. Cylindrical container used to hold non-bulk quantities of product typically in the 55-gallon range. Drums can be of closed- or open-head design and can be constructed of a range of materials, including metal, plastic, or fiberboard. Drums can be used for liquid or solid materials, including flammable liquids or solvents, corrosives, poisons, and other hazardous materials.
- 12 Cylinder. Container used for storing pressurized, liquefied, and dissolved gases. The three types of cylinders include aerosol containers, uninsulated containers, and cryogenic/insulated containers. Cylinders are usually constructed of metal, but some aerosol containers may be plastic or glass. Cylinders have a wide range of service pressures from a few psi to several thousand psi. Some examples of materials stored in cylinders include acetylene, oxygen, carbon dioxide, nitrogen, and propane. Large cylinders known as “ton containers” are used to store chlorine.
- 13 Can or bottle. Container used to store quantities of liquids or solids often intended for household or laboratory use. Cans and bottles can be constructed of metal, glass, plastic, or ceramic. Flammable liquids, solvents, corrosives, and other hazardous materials can be stored in these containers.
- 14 Carboy. A glass or plastic container used to store moderate amounts (up to over 20 gallons) of liquids in industrial or laboratory settings. Carboys are usually shipped in an outer packaging of polystyrene or wood.
- 15 Box or carton. Rigid packages that completely enclose their contents; they can be constructed of metal, plastic, fiberboard, or wood. Boxes or cartons can be used to store liquids or solids and can contain a wide range of hazardous materials. They can also be used as exterior packaging around bottles or cans and can contain radioactive or infectious materials packaged for use in medical facilities or laboratories.
- 16 Bag or sack. Most commonly used for the storage of solid materials, but can also be used for liquids. Bags and sacks can be constructed of cloth, paper, plastic, or a combination of materials in sizes ranging from a few to 100 pounds of material. Flexible intermediate bulk containers (FIBCs), known as “supersacks,” can contain from 119 to 793 gallons of product.
- 17 Cask. Specially designed, tested, and certified containers designed to transport highly radioactive materials. They are constructed to withstand high impacts and have a very low potential of container failure.
- 18 Hose. A portable, flexible tube used to transfer liquid product from one location to another.
- 10 Portable container, other. A container that meets the definition of a portable container but is not specified below.

Fixed Container. A container designed and built in a fixed location that is not intended to be moved or transported from that location.

- 21 Tank or silo. These containers can hold a wide range of liquid or solid materials in quantities ranging from several pounds or gallons to bulk storage tanks that can hold thousands of gallons of product. They are usually constructed of metal and may or may not be pressurized.
- 22 Pipe or pipeline. Pipes are used to transport liquids or gases from one location to another. They can be constructed of metal, PVC, or plastic. Pipes can begin and end within a fixed facility, or they may travel some distance as part of a pipeline.
- 23 Bin. Used to store any quantity of solid or granular materials at a fixed facility. Bins can be open or closed and are often used for materials that are insensitive to moisture or minimally reactive.
- 24 Machinery or process equipment. Equipment used for the manufacture of chemical compounds at a fixed facility. Process equipment may include a variety of containers that are combined to facilitate the reaction of chemicals into different compounds.
- 28 Hose. A fixed, flexible hose that can be permanently attached to a storage vessel or can be used to transport materials from one location to another within a facility.
- 20 Fixed container, other. A container that meets the definition of a fixed container but is not specified below.

Natural Containment. Any feature that is part of the permanent topography of the area. Natural containment areas can be manmade (for example, a manmade lake or pond).

- 31 Sump or pit. A depression created in the ground that forms a containment area for the storage of liquid or solid materials. Includes sewage treatment or sludge pits.

- 32 Pond or surface impoundment. A natural containment feature used to hold liquid or solid materials, such as a manure pond at a farm or water storage areas at a wastewater treatment facility.
- 33 Well. A well is a deep hole in the ground that was originally intended to provide access to groundwater. Dry wells can be used for the storage of hazardous materials.
- 34 Dump site or landfill. A location where various articles of trash and rubbish are routinely deposited (legally or otherwise). Dump sites and landfills may contain a wide variety of hazardous substances.
- 30 Natural containment, other. A containment that meets the definition of a natural container but is not specified below.

Mobile Container. A container designed to be transported from one location to another, intended to store quantities of product that can be offloaded at intermediate locations, or provided for the use of the transporting vehicle itself.

- 41 Vehicle fuel tank and associated piping. Vehicle fuel tanks are mobile tanks that can hold from a few gallons to several thousand gallons of product. Vehicle fuel tanks provide fuel solely for the operation of the vehicle.
- 42 Product tank on or towed by vehicle. These mobile containers may be on the vehicle or towed behind it. They are usually intended to transport product from one location to another for offloading or storage. This includes semi-trailers, trailers, or vehicles specifically designed for the transport of a commodity such as home heating oil or propane.
- 43 Piping associated with mobile product tank loading or offloading. The piping and associated loading/offloading hardware attached to the mobile container.
- 48 Hose. A flexible hose used for loading or offloading mobile containers after it is attached to a discharge pipe or outlet.
- 40 Mobile container, other. Any container that fits the definition of a mobile container but is not classified below.

Other Containers

- 91 Rigid intermediate bulk containers (RIBCs). RIBCs can contain from 119 to 793 gallons of liquid or solid product. They are used for the transport and storage of a wide variety of materials and may be constructed of steel or aluminum, but are often formed from rigid polyethylene. RIBCs are transported to a fixed facility where they are used until they are emptied of product, after which they are returned to a vendor for refill and reuse.
- 00 Container type, other.
- NN None.
- UU Undetermined.

C² Estimated Container Capacity

Definition

The amount of material the container was designed to hold. The container capacity is reported as two data elements. One is a numeric entry and expresses quantity (Block C2); the other defines the unit of measure (Block C3).

- ☛ Both the quantity (Block C2) and the unit of measure (Block C3) must be reported for the data to be meaningful.

Purpose

Aggregate information on the size of containers involved in HazMat incidents may provide (1) guidance to regulators that establish container design requirements and (2) direction to prevention and code development efforts, emergency response training, and policymaking.

Entry

Enter the estimated amount of material that the container was designed to hold, by volume or weight, to the nearest whole unit of measure.

Example

Enter “55” for a 55-gallon drum:

C2 Estimated Container Capacity

, , 5 5

Capacity: by volume or weight

C3 Units: Capacity

Definition

The unit of measure that defines, by volume or weight, the capacity of the hazardous materials container.

- ☛ Both the quantity (Block C2) and the unit of measure (Block C3) must be reported for the data to be meaningful.

Entry

Check or mark the appropriate unit of measure.

Example

The unit of measure for the drum is gallons (12):

C3 Units: Capacity Check one box

| VOLUME | | WEIGHT | |
|--------|-------------------------------------|---------------------------------|--------------------------|
| 11 | <input type="checkbox"/> | 21 | <input type="checkbox"/> |
| | Ounces | | Ounces |
| 12 | <input checked="" type="checkbox"/> | 22 | <input type="checkbox"/> |
| | Gallons | | Pounds |
| 13 | <input type="checkbox"/> | 23 | <input type="checkbox"/> |
| | Barrels: 42 gal. | | Grams |
| 14 | <input type="checkbox"/> | 24 | <input type="checkbox"/> |
| | Liters | | Kilograms |
| 15 | <input type="checkbox"/> | MICRO UNITS | |
| | Cubic feet | <input type="text"/> Enter Code | |
| 16 | <input type="checkbox"/> | | |
| | Cubic meters | | |

UNITS: CAPACITY CODES

Volume Units

- 11 Ounces (liquid).
- 12 Gallons.
- 13 Barrels (42 gal).
- 14 Liters.
- 15 Cubic feet.
- 16 Cubic meters.

Weight Units

- 21 Ounces (weight).
- 22 Pounds.
- 23 Grams.
- 24 Kilograms.

Micro Units

| | |
|----|--------------------|
| 31 | Parts per billion. |
| 32 | Parts per million. |
| 33 | Micro Roentgen. |
| 34 | Milli Roentgen. |
| 35 | Roentgen. |
| 36 | RAD. |
| 37 | REM. |
| 38 | Curie. |

SECTION D**D¹ Estimated Amount Released ☆***Definition*

The amount of hazardous material released from a container expressed as a standard unit of measure. The quantity released is reported as two data elements. One is a numeric entry and expresses quantity (Block D1); the other defines the unit of measure (Block D2).

- ☛ Both the quantity (Block D1) and the unit of measure (Block D2) must be reported for the data to be meaningful.

Purpose

Aggregate information on the amount of HazMat released provides an important measure of the magnitude of the release problem.

Entry

Enter the estimated amount of material released from the container, by volume or weight, to the nearest whole unit of measure.

Example

The HazMat release was estimated at 100 gallons of material:

| | |
|--------------------------------------|------------------------------------|
| D₁ | Estimated Amount Released ☆ |
| <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> |
| Amount released: by volume or weight | |

D² Units: Released*Definition*

The unit of measure, by volume or weight, for the amount of the hazardous material released from the container.

- Both the quantity (Block D1) and the unit of measure (Block D2) must be reported for the data to be meaningful.

Entry

Check or mark the appropriate unit of measure.

Example

The unit of measure for the release is gallons (12):

| D ₂ Units: Released | | Check one box | |
|--------------------------------|---|--------------------|------------------------------------|
| VOLUME | | WEIGHT | |
| 11 | <input type="checkbox"/> Ounces | 21 | <input type="checkbox"/> Ounces |
| 12 | <input checked="" type="checkbox"/> Gallons | 22 | <input type="checkbox"/> Pounds |
| 13 | <input type="checkbox"/> Barrels: 42 gal. | 23 | <input type="checkbox"/> Grams |
| 14 | <input type="checkbox"/> Liters | 24 | <input type="checkbox"/> Kilograms |
| 15 | <input type="checkbox"/> Cubic feet | MICRO UNITS | |
| 16 | <input type="checkbox"/> Cubic meters | _ _ Enter Code | |

UNITS: RELEASED CODES

Volume Units

- 11 Ounces (liquid).
- 12 Gallons.
- 13 Barrels (42 gal).
- 14 Liters.
- 15 Cubic feet.
- 16 Cubic meters.

Weight Units

- 21 Ounces (weight).
- 22 Pounds.
- 23 Grams.
- 24 Kilograms.

Micro Units

- 31 Parts per billion.
- 32 Parts per million.
- 33 Micro Roentgen.
- 34 Milli Roentgen.
- 35 Roentgen.
- 36 RAD.
- 37 REM.
- 38 Curie.

SECTION E

This section deals with the physical state of the HazMat and the environment in which it was released.

E¹ Physical State When Released

Definition

The simple physical state of the material during release.

Purpose

Aggregate information on the physical state of hazardous materials being released can reveal trends or patterns for particular materials, classes of materials, and physical states. These trends may provide direction for policymakers, prevention efforts, and training curricula.

Entry

Check or mark the box best describing the physical state of the material when released.

Example

The release of hazardous material was in a liquid state (2).

| E ¹ Physical State When Released | |
|--|--|
| 1 | <input type="checkbox"/> Solid |
| 2 | <input checked="" type="checkbox"/> Liquid |
| 3 | <input type="checkbox"/> Gas |
| U | <input type="checkbox"/> Undetermined |

PHYSICAL STATE WHEN RELEASED CODES

| | |
|---|---------------|
| 1 | Solid. |
| 2 | Liquid. |
| 3 | Gas. |
| U | Undetermined. |

E² Released Into

Definition

The general environment contaminated by the hazardous material after release.

Purpose

Aggregate information on environmental contamination can provide insight on the extent and environmental impact of hazardous materials releases. This may provide important information to resource planners and policymakers who develop zoning ordinances and regulations for the use or transportation of hazardous materials.

Entry

Enter the code that best describes the environment contaminated by the hazardous material.

Example

A hazardous materials release spread down a street and into a river (4):

| | |
|-----------|---|
| E2 | Released Into |
| | <input type="text" value="4"/> Released into |

RELEASED INTO CODES

| | |
|---|---|
| 1 | Air. |
| 2 | Water. |
| 3 | Ground. |
| 4 | Water and ground. |
| 5 | Air and ground. |
| 6 | Water and air. |
| 7 | Air, water, and ground. |
| 8 | Confined, no environmental impact; not released into air, water, or ground. |

SECTION F

Information on the location of the release and the population density in the area of the release is captured in this section.

F¹ Released From

Definition

The physical location from which the hazardous material was released.

Purpose

Aggregate information on the physical location of hazardous material releases may reveal trends or patterns for particular materials, classes of materials, and physical states. These trends may provide direction for code enforcement or prevention efforts, policymakers, and training curricula.

Entry

If the location of the release was below grade, check or mark the Below Grade box. If the release was inside or on a structure, check or mark the Inside/On Structure box and enter the Story of Release directly below. If the release was outside a structure, check or mark the Outside of Structure box.

- ☛ For purposes of HazMat data collection, Below Grade also refers to underground releases.
- ☛ Checking or marking the Below Grade box has the effect of entering a negative number in NFIRS 5.0.

Example

The HazMat release came from an above-ground pipeline (2):

| | |
|----------------------|--|
| F₁ | Released From |
| | Check all applicable boxes |
| | <input type="checkbox"/> Below grade |
| 1 | <input type="checkbox"/> Inside/on structure |
| | <input type="checkbox"/> Story of release |
| 2 | <input checked="" type="checkbox"/> Outside of structure |

RELEASED FROM CODES

- 1 Inside or on structure.
- 2 Outside of structure.

F₂ Population Density

Definition

An estimate of the population density in the area of the hazardous materials release.

Purpose

Aggregate information on the population density of areas where hazardous materials are released can help define prevention, enforcement, training, and emergency response needs for different areas.

Entry

Check or mark the box best describing the area where the hazardous material was released.

Example

The HazMat release occurred in a busy city center (1):

| | |
|----------------------|---|
| F₂ | Population Density |
| 1 | <input checked="" type="checkbox"/> Urban |
| 2 | <input type="checkbox"/> Suburban |
| 3 | <input type="checkbox"/> Rural |

POPULATION DENSITY CODES

- 1 Urban center. Densely populated with extensive development.
- 2 Suburban. Predominantly single-family residential, within a short distance of an urban area. Suburban communities are less densely populated than urban areas but may contain areas of significant development.
- 3 Rural. Scattered small communities and isolated family dwellings. Rural areas may be sparsely populated with widely scattered homes or housing developments.

SECTION G

This section collects information on the size of the area affected by a HazMat release and whether an evacuation occurred.

G¹ Area Affected

Definition

The amount of area or space directly affected by the hazardous material release. This does not include the area evacuated, or the area contaminated. Evacuation information is recorded in Blocks G1 and G2.

- Both the Area Affected (Block G1) and the Area Evacuated (Block G2) must be reported for the data to be meaningful.

Purpose

Information on the area affected guides future planning and incident management efforts.

Entry

Check or mark the appropriate unit-of-measurement box and enter the numeric value for the measurement of the area affected.

Example

A HazMat release affected a 2,000-square-foot area (1):

| | |
|--|---|
| G₁ | Area Affected |
| 1 | <input checked="" type="checkbox"/> Square feet |
| 2 | <input type="checkbox"/> Blocks |
| 3 | <input type="checkbox"/> Square miles |
| <input type="text" value="2"/> , <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> Enter measurement | |

AREA AFFECTED CODES

- | | |
|---|---------------|
| 1 | Square feet. |
| 2 | Blocks. |
| 3 | Square miles. |

G² Area Evacuated

Definition

The amount of area or space evacuated as a result of the hazardous materials release or potential release. This includes the contaminated area (Block G1).

- Both the Area Affected (Block G1) and the Area Evacuated (Block G2) must be reported for the data to be meaningful.

Purpose

Information on the area evacuated can guide future training and incident management efforts. It is also an indirect measure of the amount of emergency resources needed to deal with the release.

Entry

Check or mark the appropriate unit-of-measurement box and enter the numeric value for the measurement (rounded to the nearest whole number) of the area evacuated. If there was no evacuation, check or mark the None box.

Example

A daytime chlorine release necessitated the evacuation of 2 square miles (3).

| | | |
|--------------------------|--|---|
| G2 Area Evacuated | | <input type="checkbox"/> None |
| 1 | <input type="checkbox"/> Square feet | <input type="text"/> , <input type="text"/> 2 |
| 2 | <input type="checkbox"/> Blocks | Enter measurement |
| 3 | <input checked="" type="checkbox"/> Square miles | |

AREA EVACUATED CODES

- | | |
|---|---------------|
| 1 | Square feet. |
| 2 | Blocks. |
| 3 | Square miles. |

G³ Estimated Number of People Evacuated

Definition

The estimated number of people evacuated due to the hazardous materials release or potential release.

Purpose

Information on the number of people evacuated can provide important information to resource planners and policymakers developing zoning ordinances or regulations for the use and transportation of hazardous materials. This information may also help direct future training and incident management efforts for emergency response personnel. It is also an indirect measure of the amount of emergency resources needed to deal with the release.

Entry

Enter the estimated number of people evacuated.

Example

An estimated 800 people were evacuated from a high school that was the site of a hazardous material release in a chemistry laboratory:

| | |
|----------------------|---|
| G₃ | Estimated Number of People Evacuated |
| | <input type="text"/> , <input type="text" value="8"/> <input type="text" value="0"/> <input type="text" value="0"/> |

G⁴ Estimated Number of Buildings Evacuated*Definition*

The estimated number of buildings evacuated due to the hazardous materials release or potential release.

Purpose

Information on the number of buildings evacuated can provide important information to resource planners and policymakers developing zoning ordinances or regulations for the use and transportation of hazardous materials. This information may also help direct future training and incident management efforts for emergency response personnel. It is also an indirect measure of the amount of emergency resources needed to deal with the release.

Entry

Enter the estimated number of buildings evacuated. Include buildings that were already empty in the evacuated area (e.g., houses during the day with no one home). If no buildings were evacuated, check or mark the None box.

Example

A two-story commercial structure with a hazardous materials release from a dry cleaning establishment on the first floor was evacuated:

| | |
|----------------------|---|
| G₄ | Estimated Number of Buildings Evacuated |
| | <input type="text"/> , <input type="text" value="1"/> <input type="checkbox"/> None |

SECTION H

H HazMat Actions Taken*Definition*

Specialized HazMat response actions taken at the scene of an incident by personnel specifically trained and equipped to mitigate hazards arising from hazardous materials releases. Other actions taken by fire service personnel should be entered in the Basic Module.

Purpose

Information on the actions taken by specialized hazardous materials response personnel can guide future training and incident management efforts.

Entry

Enter the two-digit code and description for up to three significant HazMat actions taken.

- ☛ Significant non-HazMat actions taken should be entered in the Actions Taken section (F) of the Basic Module.
- ☛ If more than three significant HazMat actions were taken, the additional actions can be documented on the Basic Module.

Example

Flammable liquid from a semi-trailer was released. HazMat personnel controlled the spill (13), isolated the area (22), and released a statement to the media (33):

| H HazMat Actions Taken | |
|---------------------------------|-------------------------------|
| Enter up to three actions taken | |
| 1 3 | Spill control & confinement |
| Primary action taken (1) | |
| 2 2 | Isolate, deny entry, zones |
| Additional action taken (2) | |
| 3 3 | Information to public & media |
| Additional action taken (3) | |

HAZMAT ACTIONS TAKEN CODES

Hazardous Condition

- | | |
|----|---|
| 11 | Identify, analyze hazardous materials. |
| 12 | HazMat detection, monitoring, sampling, and analysis. Actions taken to detect, monitor, and sample hazardous materials using a variety of detection instruments including combustible gas indicators (CGIs) or explosimeter, oxygen monitors, colorimetric tubes, specific chemical monitors, and others. Results from these devices must be analyzed to provide information about the hazardous nature of the material or environment. |
| 13 | HazMat spill control and confinement. These are actions taken to confine the product release to a limited area including the use of absorbents, damming/diking, diversion of liquid runoff, dispersion, retention, or vapor suppression. |
| 14 | HazMat leak control and containment. These are actions taken to keep a material within its container including plugging/patching operations, neutralization, pressure isolation/reduction, solidification, and vacuuming. |
| 15 | Remove hazard or hazardous materials. A broad range of actions taken to remove hazardous materials from a damaged container or contaminated area. Examples of actions to remove hazards include product offload/transfer, controlled burning or product flaring, venting, and overpacking. |
| 16 | Decontaminate persons or equipment. Actions taken to prevent the spread of contaminants from the “hot zone” to the “cold zone.” This includes gross, technical, or advanced personal decontamination of victims, emergency responders, and equipment. |

Isolation and Evacuation. Actions taken to isolate the contaminated area or evacuate those persons affected by a hazardous materials release or potential release.

- 21 Determine the materials released to be non-hazardous through product identification and environmental monitoring.
- 22 Isolate area and establish hazard control zones. Actions taken to isolate the affected area, deny entry to unprotected persons, and establish hazard control zones (hot, warm, cold).
- 23 Provide apparatus. Actions taken to provide apparatus to conduct evacuation and isolation efforts.
- 24 Provide equipment. Actions taken to provide equipment for evacuation and isolation efforts. Includes equipment provided to care for evacuees.
- 25 Provide water. Actions taken to provide water supply for exposure protection or fire control efforts.
- 26 Control crowd. Actions taken by fire department personnel to control crowds and onlookers.
- 27 Control traffic. Actions taken by fire department personnel to control traffic along evacuation routes.
- 28 Protect in-place operations. Actions taken to protect civilians in their homes, schools, or places of work, without evacuating them from a potentially hazardous area.

Information, Investigation, and Enforcement. Actions taken to disseminate information about a hazardous materials incident for the purposes of notifying the public; requesting mutual aid from local, State, or Federal agencies; and conducting investigation or enforcement operations.

- 31 Refer to proper authority. Actions taken to “hand off” the incident from emergency response personnel to cleanup crews or other agencies responsible for restoring the facility and environment to a pre-incident condition.
- 32 Notify other agencies. Actions taken to ensure that other agencies are involved or notified of the incident so that they may provide assistance or fulfill their legally mandated responsibilities.
- 33 Provide information to the public or media. Actions taken to provide information to the public through media resources or through alerting systems like the Emergency Broadcast System. Horns, klaxons, and other warning devices located at fixed facilities for evacuation purposes are included here.
- 34 Investigate. Actions taken to investigate the cause of a hazardous materials release, identify the financially responsible party, and enable cost-recovery efforts.
- 35 Standby. Actions taken to ensure that sufficient resources are on standby for possible use at a hazardous materials incident.
- 00 HazMat actions taken, other. Any other actions taken during the course of a hazardous materials incident that are not identified on the Basic or HazMat Modules.

SECTION I

I Release/Ignition Sequence

Definition

The indication of when a fire or explosion occurred in relation to the actual release of the hazardous material.

Purpose

Information on the causal relationship of the events occurring during a hazardous materials release can guide future training and incident management efforts.

Entry

Check or mark the Ignition box if a fire led to a release of hazardous materials. Check or mark the Release box if a hazardous material was spilled or released and then caught fire.

Example

An explosion and fire occurred following the spill of a flammable liquid (2):

| | | | |
|----------|-------------------------------------|---|---|
| I | | If fire or explosion is involved with a release, which occurred first? | |
| 1 | <input type="checkbox"/> | Ignition | U <input type="checkbox"/> Undetermined |
| 2 | <input checked="" type="checkbox"/> | Release | |

RELEASE/IGNITION SEQUENCE CODES

- | | |
|---|---------------|
| 1 | Ignition. |
| 2 | Release. |
| U | Undetermined. |

SECTION J

J Cause of Release ☆

Definition

The cause of the situation present at the time and location of the incident that caused the release or threatened release of a hazardous material.

Purpose

Information on the cause of release can guide prevention and enforcement efforts.

Entry

Check or mark the box that best describes the cause or reason for the release.

Example

The hazardous material was released from a rusted drum (3):

| | | | |
|----------|-------------------------------------|--|--|
| J | | Cause of Release ☆ | |
| 1 | <input type="checkbox"/> | Intentional | |
| 2 | <input type="checkbox"/> | Unintentional release | |
| 3 | <input checked="" type="checkbox"/> | Container/containment failure | |
| 4 | <input type="checkbox"/> | Act of nature | |
| 5 | <input type="checkbox"/> | Cause under investigation | |
| U | <input type="checkbox"/> | Cause undetermined after investigation | |

CAUSE OF RELEASE CODES

- 1 Intentional.
- 2 Unintentional release.
- 3 Container or containment failure.
- 4 Act of nature.
- 5 Cause under investigation.
- U Cause undetermined after investigation.

SECTION K**K Factors Contributing to Release***Definition*

Factors present at the time and location of the incident that contributed to the release or threatened release of a hazardous material.

Purpose

Information on factors contributing to the release can guide prevention and enforcement efforts.

Entry

Enter the two-digit codes and descriptions for up to three significant factors that contributed to the release or threatened release of the hazardous material.

Example

Hazardous materials were released from rusted drums (32) (45) at an illegal dump site (31):

| K Factors Contributing to Release | |
|---|---|
| Enter up to three contributing factors | |
| <input type="text" value="3"/> <input type="text" value="1"/> | <input type="text" value="Discarded HazMat"/> |
| Factor contributing to release (1) | |
| <input type="text" value="3"/> <input type="text" value="2"/> | <input type="text" value="Improper storage/temperature"/> |
| Factor contributing to release (2) | |
| <input type="text" value="4"/> <input type="text" value="5"/> | <input type="text" value="Improper container"/> |
| Factor contributing to release (3) | |

FACTORS CONTRIBUTING TO RELEASE CODES

Failure To Control Hazardous Material. Factors where human failure to control the hazardous material contributed to a release or potential release.

- 31 Abandoned or discarded hazardous material. Excludes falling asleep (33), impairment by drugs or alcohol (37), and other impairments (38).
- 32 Failure to maintain the hazardous material within the proper storage or use temperature range.

- 33 Failure to control the hazardous material due to a vehicle or process operator falling asleep.
- 34 Inadequate control of hazardous materials. Includes improper transfer or overfilling of a container. Excludes accidental release due to improper container (45).
- 37 Person possibly impaired by drugs or alcohol while controlling hazardous materials. Excludes people who simply fall asleep (33).
- 38 Person otherwise impaired or unconscious. Includes mental or physical impairment. Excludes people who simply fall asleep (33).
- 30 Failure to control hazardous materials, other. A human failure to control hazardous materials not classified below.

Misuse of Hazardous Materials

- 42 Improper mixing technique. Includes mixing and compounding of chemicals. Excludes hazardous materials spills (34).
- 43 Hazardous materials used improperly. Includes chemicals used for the wrong purpose.
- 45 Improper container. Includes containers not designed for the hazardous material contained.
- 46 Improper movement of hazardous materials containers.
- 47 Improper storage procedures. Includes storage near heating equipment and moving parts.
- 48 Children playing with hazardous materials and having no knowledge of the dangers of hazardous materials.
- 49 Criminal Activity.
- 40 Misuse of hazardous materials, other.

Mechanical Failure, Malfunction. (Where there is human failure to control, classify in division 3.)

- 51 Automatic control failure.
- 52 Manual control failure.
- 53 Short circuit, ground fault.
- 54 Other part failure, leak, or break.
- 55 Other electrical failure.
- 56 Lack of maintenance, worn out. Includes failures to maintain hazardous materials handling equipment. Excludes short circuits and ground faults (53) and failure to clean (75).
- 50 Mechanical failure, malfunction, other.

Design, Construction, Installation Deficiency

- 61 Design deficiency. Includes structures and containers improperly designed for the specific hazardous material.
- 62 Construction deficiency. Includes improperly built structures and containers.
- 64 Installation deficiency. Includes the improper installation of equipment for handling or processing hazardous materials.
- 60 Design, construction, installation deficiency, other.

Operational Deficiency. (Where equipment was misused, classify in division 7; misuse of hazardous materials should be classified in division 4.)

- 71 Collision, overturn, knockdown. Includes automobiles and other vehicles.
- 72 Accidentally turned on, not turned off.
- 73 Equipment unattended.
- 74 Equipment overload.
- 75 Failure to clean equipment.
- 76 Improper startup, shutdown procedures.
- 77 Equipment used for purpose not intended. Excludes overloaded equipment (74).
- 78 Equipment not being operated properly. Includes situations where safety or control devices are bypassed.
- 70 Operational deficiency, other.

Natural Condition. (For use where the natural condition changed a normally safe operation into an unsafe one.)

- 81 High wind. Includes tornadoes and hurricanes.
- 82 Earthquake.
- 83 High water, flood.
- 84 Lightning.
- 85 Low humidity.
- 86 High humidity.
- 87 Low temperature.
- 88 High temperature.
- 80 Natural condition, other.

Special Release Factors

| | |
|----|---|
| 91 | Animal. |
| 92 | Secondary release following previous release. |
| 93 | Reaction with other chemical. |
| 97 | Failure to use ordinary care under the circumstances, other than as classified above. |
| 00 | Factors contributing to release, other. |
| UU | Undetermined. |

SECTION L**L Factors Affecting Mitigation***Definition*

Factors present at the time and location of the incident that affected the fire department's mitigation of the release or threatened release of a hazardous material.

Purpose

Information on factors affecting or impeding the mitigation of a release can guide training efforts, resource planning, incident management, and prevention efforts.

Entry

Enter the two-digit codes and descriptions for up to three significant factors that impeded or affected the mitigation of the release or threatened release of the hazardous material. If no factors affected the mitigation of the release, check or mark the None box.

Example

Flammable liquid was released from an overturned semi-trailer on an interstate highway (18) during rush hour (34) in a severe thunderstorm (42):

| | | |
|----------|---|-------------------------------|
| L | Factors Affecting Mitigation | <input type="checkbox"/> None |
| | Enter up to three factors or impediments that affected the mitigation of the incident | |
| | 4 2 | Storm |
| | Factor or impediment (1) | |
| | 3 4 | Traffic delay |
| | Factor or impediment (2) | |
| | 1 8 | Released on major roadway |
| | Factor or impediment (3) | |

FACTORS AFFECTING MITIGATION CODES**Site Factors**

| | |
|----|--------------------------------------|
| 11 | Released into water table. |
| 12 | Released into sewer system. |
| 13 | Released into wildland/wetland area. |
| 14 | Released in residential area. |

- 15 Released in occupied building.
- 16 Air release in confined area.
- 17 Released, slick on waterway.
- 18 Released on major roadway.
- 10 Site factors, other.

Release Factors

- 21 Release of extremely dangerous agent. Includes chemical or biohazard agent; population at risk.
- 22 Threatened release of extremely dangerous agent. Includes chemical or biohazard agent; population at risk.
- 23 Combination of release and fire impeded mitigation of HazMat incident.
- 24 Multiple chemicals released, unknown potential effects.
- 25 Release of unidentified chemicals, unknown potential effects.
- 20 Release factors, other.

Impediment or Delay Factors

- 31 Access to release area.
- 32 HazMat apparatus unavailable.
- 33 HazMat apparatus failure.
- 34 Traffic delay.
- 35 Trouble finding location.
- 36 Communications delay.
- 37 HazMat-trained crew unavailable or delayed.
- 30 Impediment or delay factors, other.

Natural Conditions

- 41 High wind.
- 42 Storm.
- 43 High water. Includes floods.
- 44 Earthquake.
- 45 Extreme high temperature.
- 46 Extreme low temperature.
- 47 Ice or snow conditions.
- 48 Lightning.
- 49 Animal.
- 40 Natural conditions, other.
- 00 Factors affecting mitigation, other.
- NN None.

SECTION M**M Equipment Involved in Release**

☛ Most of the *Equipment Involved in Release* codes were included in *Equipment Involved in Ignition* in NFIRS 4.1.

Equipment Type*Definition*

The piece of equipment that either malfunctioned or, while working properly, allowed the release or threatened release of hazardous materials.

Purpose

Analysis of the equipment involved in a HazMat release is useful for improving product safety and preventive maintenance. It is just as important to know the kind of equipment that was used improperly as it is to know the kind of equipment that malfunctioned. Misuse can be the direct result of the way the equipment is designed and constructed. When involved in release, equipment information provides an important part of the causal data. Equipment involved in release can be compared to other causal data to determine if the equipment was (or was not) operating properly.

Entry

Enter the three-digit code and description that best describes the equipment involved in the release. If no equipment was involved, check or mark the None box.

- ☛ If a vehicle was involved in the release, use Section N.

Example

Refrigerant from a large commercial air conditioning unit was released (111):

| M Equipment Involved in Release | | <input type="checkbox"/> None |
|---------------------------------|----------------------------|-------------------------------|
| 1 1 1 | Industrial air conditioner | |
| Equipment involved in release | | |
| Brand | | |
| Model | | |
| Serial # | | |
| Year | | |

- ☛ An alphabetized synonym list for the following Equipment Involved in Release codes is presented in Appendix B.

EQUIPMENT INVOLVED IN RELEASE CODES

Heating, Ventilation, and Air Conditioning

- 111 Air conditioner.
- 112 Heat pump.
- 113 Fan.
- 114 Humidifier, non-heat producing. Excludes heaters with built-in humidifiers (131, 132).
- 115 Ionizer.
- 116 Dehumidifier, portable.
- 117 Evaporative cooler, cooling tower.
- 121 Fireplace, masonry.
- 122 Fireplace, factory-built.
- 123 Fireplace, insert/stove.
- 124 Stove, heating.
- 125 Chimney connector, vent connector.
- 126 Chimney: brick, stone, masonry.
- 127 Chimney: metal. Includes stovepipes and flues.
- 120 Fireplace, chimney, other.
- 131 Furnace, local heating unit, built-in. Includes built-in humidifiers. Excludes process furnaces, kilns (353).
- 132 Furnace, central heating unit. Includes built-in humidifiers. Excludes process furnaces, kilns. (353)
- 133 Boiler (power, process, heating).
- 141 Heater. Includes floor furnaces, wall heaters, and baseboard heaters. Excludes catalytic heaters (142), oil-filled heaters (143), hot water heaters (152).

- 142 Heater, catalytic.
- 143 Heater, oil-filled. Excludes kerosene heaters (141).
- 144 Heat lamp.
- 145 Heat tape.
- 151 Water heater. Includes sink-mounted instant hot water heaters and waterbed heaters.
- 152 Steam line, heat pipe, hot air duct. Includes radiators and hot water baseboard heaters.
- 100 Heating, ventilation, and air conditioning, other.

Electrical Distribution, Lighting, and Power Transfer

- 211 Electrical power (utility) line. Excludes wires from the utility pole to the structure.
- 212 Electrical service supply wires; wires from utility pole to meter box.
- 213 Electric meter, meter box.
- 214 Electrical wiring from meter box to circuit breaker board, fuse box, or panel board.
- 215 Panel board (fuse); switchboard, circuit breaker board with or without ground-fault interrupter
- 216 Electrical branch circuit. Includes armored (metallic) cable, nonmetallic sheathing, or wire in conduit.
- 217 Outlet, receptacle. Includes wall-type receptacles, electric dryer and stove receptacles.
- 218 Wall-type switch. Includes light switches.
- 219 Ground-fault interrupter (GFI), portable, plug-in.
- 210 Electrical wiring, other.
- 221 Transformer, distribution-type.
- 222 Overcurrent, disconnect equipment. Excludes panel boards.
- 223 Transformer, low-voltage (not more than 50 volts).
- 224 Generator.
- 225 Inverter.
- 226 Uninterrupted power supply (UPS).
- 227 Surge protector.
- 228 Battery charger, rectifier.
- 229 Battery. Includes all battery types.
- 231 Lamp: tabletop, floor, desk. Excludes halogen fixtures (235) and light bulbs (238).
- 232 Lantern, flashlight.
- 233 Incandescent lighting fixture.
- 234 Fluorescent lighting fixture, ballast.
- 235 Halogen lighting fixture or lamp.
- 236 Sodium, mercury vapor lighting fixture or lamp.
- 237 Portable or movable work light, trouble light.
- 238 Light bulb.
- 230 Lamp, lighting, other.
- 241 Night light.
- 242 Decorative lights, line voltage. Includes holiday lighting, Christmas lights.
- 243 Decorative or landscape lighting, low voltage.
- 244 Sign. Includes neon signs.
- 251 Fence, electric.
- 252 Traffic control device
- 253 Lightning rod, arrester/grounding device.
- 261 Power cord, plug; detachable from appliance.
- 262 Power cord, plug; permanently attached to appliance.
- 263 Extension cord.
- 260 Cord, plug, other.
- 200 Electrical distribution, lighting, and power transfer, other.

Shop Tools and Industrial Equipment

- 311 Power saw.
- 312 Power lathe.
- 313 Power shaper, router, jointer, planer.
- 314 Power cutting tool.
- 315 Power drill, screwdriver.
- 316 Power sander, grinder, buffer, polisher.
- 317 Power hammer, jackhammer.
- 318 Power nail gun, stud driver, stapler.
- 310 Power tools, other.
- 321 Paint dipper.
- 322 Paint flow coating machine.
- 323 Paint mixing machine.
- 324 Paint sprayer.
- 325 Coating machine. Includes asphalt-saturating and rubber-spreading machines.
- 320 Painting tools, other.
- 331 Welding torch. Excludes cutting torches (332).
- 332 Cutting torch. Excludes welding torches (331).
- 333 Burners. Includes Bunsen burners, plumber furnaces, and blowtorches. Excludes weed burners (523).
- 334 Soldering equipment.
- 341 Air compressor.
- 342 Gas compressor.
- 343 Atomizing equipment. Excludes paint spraying equipment (324).
- 344 Pump. Excludes pumps integrated with other types of equipment.
- 345 Wet/Dry vacuum (shop vacuum).
- 346 Hoist, lift, crane.
- 347 Powered jacking equipment. Includes hydraulic rescue tools.
- 348 Drilling machinery or equipment. Includes water or gas drilling equipment.
- 340 Hydraulic equipment, other.
- 351 Heat-treating equipment.
- 352 Incinerator.
- 353 Industrial furnace, oven, kiln. Excludes ovens for cooking (646).
- 354 Tarpot, tar kettle.
- 355 Casting, molding, forging equipment.
- 356 Distilling equipment.
- 357 Digester, reactor.
- 358 Extractor, waste recovery machine. Includes solvent extractors such as used in dry-cleaning operations and garnetting equipment.
- 361 Conveyor. Excludes agricultural conveyors (513).
- 362 Power transfer equipment: ropes, cables, blocks, belts.
- 363 Power takeoff.
- 364 Powered valves.
- 365 Bearing or brake.
- 371 Picking, carding, weaving machine. Includes cotton gins.
- 372 Testing equipment.
- 373 Gas regulator. Includes propane, butane, LP, or natural gas regulators and flexible hose connectors to gas appliances.
- 374 Motor, separate. Includes bench motors. Excludes internal combustion motors (375).
- 375 Internal combustion engine (nonvehicular).
- 376 Printing press.
- 377 Car washing equipment.
- 300 Shop tools and industrial equipment, other.

Commercial and Medical Equipment

- 411 Dental, medical, or other powered bed or chair. Includes powered wheelchairs.
- 412 Dental equipment, other.
- 413 Dialysis equipment.
- 414 Medical imaging equipment. Includes MRI, CAT scan, and ultrasound.
- 415 Medical monitoring equipment.
- 416 Oxygen administration equipment.
- 417 Radiological equipment, x-ray, radiation therapy.
- 418 Sterilizer, medical.
- 419 Therapeutic equipment.
- 410 Medical equipment, other.
- 421 Transmitter.
- 422 Telephone switching gear, including PBX.
- 423 TV monitor array. Includes control panels with multiple TV monitors and security monitoring stations. Excludes single TV monitor configurations (753).
- 424 Studio-type TV camera. Includes professional studio television cameras. Excludes home camcorders and video equipment (756).
- 425 Studio-type sound recording/modulating equipment.
- 426 Radar equipment.
- 431 Amusement ride equipment.
- 432 Ski lift.
- 433 Elevator or lift.
- 434 Escalator.
- 441 Microfilm, microfiche viewing equipment.
- 442 Photo processing equipment. Includes microfilm processing equipment.
- 443 Vending machine.
- 444 Nonvideo arcade game. Includes pinball machines and the like. Excludes electronic video games (755).
- 445 Water fountain, water cooler.
- 446 Telescope. Includes radio telescopes.
- 451 Electron microscope.
- 450 Laboratory equipment, other.
- 400 Commercial and medical equipment, other.

Garden Tools and Agricultural Equipment

- 511 Combine, threshing machine.
- 512 Hay processing equipment.
- 513 Farm elevator or conveyor.
- 514 Silo loader, unloader, screw/sweep auger.
- 515 Feed grinder, mixer, blender.
- 516 Milking machine.
- 517 Pasteurizer. Includes milk pasteurizers.
- 518 Cream separator.
- 521 Sprayer, farm or garden.
- 522 Chain saw.
- 523 Weed burner.
- 524 Lawn mower.
- 525 Lawn, landscape trimmer, edger.
- 531 Lawn vacuum.
- 532 Leaf blower.
- 533 Mulcher, grinder, chipper. Includes leaf mulchers.
- 534 Snow blower, thrower.
- 535 Log splitter.
- 536 Post hole auger.

- 537 Post driver, pile driver.
- 538 Tiller, cultivator.
- 500 Garden tools and agricultural equipment, other.

Kitchen and Cooking Equipment

- 611 Blender, juicer, food processor, mixer.
- 612 Coffee grinder.
- 621 Can opener.
- 622 Knife.
- 623 Knife sharpener.
- 631 Coffee maker or teapot.
- 632 Food warmer, hot plate.
- 633 Kettle.
- 634 Popcorn popper.
- 635 Pressure cooker or canner.
- 636 Slow cooker.
- 637 Toaster, toaster oven, countertop broiler.
- 638 Waffle iron, griddle.
- 639 Wok, frying pan, skillet.
- 641 Bread-making machine.
- 642 Deep fryer.
- 643 Grill, hibachi, barbecue.
- 644 Microwave oven.
- 645 Oven, rotisserie.
- 646 Range with or without an oven or cooking surface. Includes counter-mounted stoves.
- 647 Steam table, warming drawer/table.
- 651 Dishwasher.
- 652 Freezer when separate from refrigerator.
- 653 Garbage disposer.
- 654 Grease hood/duct exhaust fan.
- 655 Ice maker (separate from refrigerator).
- 656 Refrigerator, refrigerator/freezer.
- 600 Kitchen and cooking equipment, other.

Electronic and Other Electrical Equipment

- 711 Computer. Includes devices such as hard drives and modems installed inside the computer casing. Excludes external storage devices (712).
- 712 Computer storage device, external. Includes CD-ROM devices, tape drives, and disk drives. Excludes such devices when they are installed within a computer (711).
- 713 Computer modem, external. Includes digital, ISDN modems, cable modems, and modem racks. Excludes modems installed within a computer (711).
- 714 Computer monitor. Includes LCD or flat-screen monitors.
- 715 Computer printer. Includes multifunctional devices such as copier, fax, and scanner.
- 716 Computer projection device, LCD panel, projector.
- 710 Computer device, other.
- 721 Adding machine, calculator.
- 722 Telephone or answering machine.
- 723 Cash register.
- 724 Copier. Includes large standalone copiers. Excludes small copiers and multifunctional devices (715).
- 725 Fax machine.
- 726 Paper shredder.
- 727 Postage, shipping meter equipment.
- 728 Typewriter.

| | |
|-----|--|
| 720 | Office equipment, other. |
| 731 | Guitar. |
| 732 | Piano, organ. Includes player pianos. Excludes synthesizers and musical keyboards (733). |
| 733 | Musical synthesizer or keyboard. Excludes pianos, organs (732). |
| 730 | Musical instrument, other. |
| 741 | CD player (audio). Excludes computer CD, DVD players (712). |
| 742 | Laser disk player. Includes DVD players and recorders. |
| 743 | Radio. Excludes two-way radios (744). |
| 744 | Radio, two-way. |
| 745 | Record player, phonograph, turntable. |
| 747 | Speakers, audio; separate components. |
| 748 | Stereo equipment. Includes receivers, amplifiers, equalizers. Excludes speakers (747). |
| 749 | Tape recorder or player. |
| 740 | Sound recording or receiving equipment, other. |
| 751 | Cable converter box. |
| 752 | Projector: film, slide, overhead. |
| 753 | Television. |
| 754 | VCR or VCR-TV combination. |
| 755 | Video game, electronic. |
| 756 | Camcorder, video camera. |
| 757 | Photographic camera and equipment. Includes digital cameras. |
| 750 | Video equipment, other. |
| 700 | Electronic equipment, other. |

Personal and Household Equipment

| | |
|-----|--|
| 811 | Clothes dryer. |
| 812 | Trash compactor. |
| 813 | Washer/Dryer combination (within one frame). |
| 814 | Washing machine, clothes. |
| 821 | Hot tub, whirlpool, spa. |
| 822 | Swimming pool equipment. |
| 830 | Floor care equipment, other. |
| 831 | Broom, electric. |
| 832 | Carpet cleaning equipment. Includes rug shampooers. |
| 833 | Floor buffer, waxer, cleaner. |
| 834 | Vacuum cleaner. |
| 841 | Comb, hair brush. |
| 842 | Curling iron. |
| 843 | Electrolysis equipment. |
| 844 | Hair curler warmer. |
| 845 | Hair dryer. |
| 846 | Makeup mirror, lighted. |
| 847 | Razor, shaver (electric). |
| 848 | Suntan equipment, sunlamp. |
| 849 | Toothbrush (electric). |
| 850 | Portable appliance designed to produce heat, other. |
| 851 | Baby bottle warmer. |
| 852 | Blanket, electric. |
| 853 | Heating pad. |
| 854 | Clothes steamer. |
| 855 | Clothes iron. |
| 861 | Automatic door opener. Excludes garage door openers (863). |
| 862 | Burglar alarm. |
| 863 | Garage door opener. |

| | |
|-----|--|
| 864 | Gas detector. |
| 865 | Intercom. |
| 866 | Smoke or heat detector, fire alarm. Includes control equipment. |
| 868 | Thermostat. |
| 871 | Ashtray. |
| 872 | Charcoal lighter, utility lighter. |
| 873 | Cigarette lighter, pipe lighter. |
| 874 | Fire-extinguishing equipment. Includes electronic controls. |
| 875 | Insect trap. Includes bug zappers. |
| 876 | Timer. |
| 881 | Model vehicles. Includes model airplanes, boats, rockets, and powered vehicles used for hobby and recreational purposes. |
| 882 | Toy, powered. |
| 883 | Woodburning kit. |
| 891 | Clock. |
| 892 | Gun. |
| 893 | Jewelry-cleaning machine. |
| 894 | Scissors. |
| 895 | Sewing machine. |
| 896 | Shoe polisher. |
| 897 | Sterilizer, non-medical. |
| 800 | Personal and household equipment, other. |

Other Equipment Involved in Release

| | |
|-----|---------------------------------------|
| 000 | Equipment involved in release, other. |
| NNN | None. |
| UUU | Undetermined |

Equipment Brand, Model, Serial Number, and Year

Definition

The information in this block precisely identifies the equipment that was involved in the HazMat release. As possible, the following information should be recorded:

Brand: The name by which the equipment is most commonly known.

Model: The model name or number assigned to the equipment by the manufacturer. If there is no specific model name or number, use the common physical description of the equipment.

Serial Number: The manufacturer's serial number that is generally stamped on an identification plate on the equipment.

Year: The year that the equipment was built.

Purpose

This element identifies specific types of equipment that failed or contributed to the release. This information can be used to determine whether particular brands or models cause problems more frequently than others; and to identify equipment for product recalls or in the development of new product safety codes.

Entry

Enter the brand, model, serial number, and year of the equipment involved in the release.

Example

The commercial air conditioner was a 1997 Freezidaire Model Z2000, serial number 1267-45-0078:

| | | |
|-------------------------------|--------------------------------------|-------------------------------|
| M | Equipment Involved in Release | <input type="checkbox"/> None |
| 1 1 1 | Industrial air conditioner | |
| Equipment involved in release | | |
| Brand | Freezidaire | |
| Model | Z2000 | |
| Serial # | 1267-45-0078 | |
| Year | 1 9 9 7 | |

SECTION N

N Mobile Property Involved in Release

Property Type

Definition

Property designed and constructed to be mobile, movable under its own power, or towed, such as an airplane, automobile, boat, cargo trailer, farm vehicle, motorcycle, or recreational vehicle, that either failed or, while working properly, allowed the release or threatened release of hazardous materials.

Purpose

This information can guide prevention, enforcement, and product design efforts. Depending on State and local laws, specific documentation on mobile property involved in the release of a hazardous material may assist the fire department in collecting reimbursement from the responsible party for the expenses incurred in mitigating the hazardous materials incident.

Entry

Enter the two-digit code and description of the type of mobile property. If no mobile property was involved, check or mark the None box.

Example

Flammable gas was released from a propane delivery truck (26):

Example on next page

| | | |
|--|--|-------------------------------|
| N Mobile Property Involved in Release | | <input type="checkbox"/> None |
| 2 6 LP Gas Tank Truck | | |
| Mobile property type | | |
| | | |
| Mobile property make | | |
| | | |
| Model | | Year |
| | | |
| License plate number | | State |
| | | |
| DOT number/ICC number | | |

Make, Model, Year, License Number, State, DOT/ICC Number

Definitions

The information in this block precisely identifies the mobile property involved in a HazMat release. As possible, the following information should be recorded:

Make: The name of the manufacturer of the property.

Model: The manufacturer's model name. If one does not exist, use the physical description of the property that is commonly used to describe it, such as an "8,500-gallon tank truck."

Year: The year the property was manufactured.

License Plate Number (if any): The number on the license plates affixed to the vehicle; plates are generally issued by the State agency of motor vehicles. License numbers may also be available for boats, airplanes, and farm vehicles.

State: The State where the vehicle is licensed.

- ☛ If a commercial vehicle that is involved in the incident is licensed in multiple States, record the State license where the release occurred. If no license exists for the State where the release occurred, use the State license of the vehicle's home origin.

DOT/ICC Number: The identification number assigned to the commercial carrier by either the Interstate Commerce Commission (ICC) or the Department of Transportation (DOT). It is generally stenciled on the vehicle or trailer.

Purpose

This element provides detailed information that identifies the specific types of mobile property involved in a hazardous materials release, which can be used to determine whether particular brands or models are more often a problem than others. Data on make, model, year, and other information are useful for determining compliance to standards of mobile properties and analyzing the effectiveness of these codes, standards, and regulations. The data also can be used to identify any special hazards.

Entry

Enter the two-digit code and description of the property type. Enter the two-character code (from the list at the end of this section) and description of the property make. Enter the remaining information as appropriate. Be as specific as possible in making these entries.

☛ Both the License Plate Number and DOT Number/ICC Number are left-justified in their fields.

Example

A release of LP gas from a 1967 Mack (MK) Bobtail tank truck occurred. The truck was licensed in Virginia (plate 12345) and was stenciled with a DOT number of 189267:

| | | | | |
|-----------------------|-------------------|--|---------------|-------------------------------|
| N | | Mobile Property Involved in Release | | <input type="checkbox"/> None |
| 2 6 | LP Gas Tank Truck | | | |
| Mobile property type | | | | |
| M K | Mack | | | |
| Mobile property make | | | | |
| Bobtail | | | 1 9 6 7 | |
| Model | | | Year | |
| 1 2 3 4 5 | | | | V A |
| License plate number | | | | State |
| 1 8 9 2 6 7 | | | | |
| DOT number/ICC number | | | | |

MOBILE PROPERTY TYPE CODES

Passenger Road Vehicles

- 11 Automobile, passenger car, ambulance, limousine, race car, taxicab.
- 12 Bus, school bus. Includes “trackless” trolley buses.
- 13 Off-road recreational vehicle. Includes dune buggies, golf carts, go-carts, snowmobiles. Excludes sport utility vehicles (11) and motorcycles (18).
- 14 Motor home (has own engine), camper mounted on pickup, bookmobile.
- 15 Trailer, travel; designed to be towed.
- 16 Trailer, camping; collapsible, designed to be towed.
- 17 Mobile home, bank, classroom, or office (all designed to be towed), whether mounted on a chassis or on blocks for semipermanent use.
- 18 Motorcycle, trail bike. Includes motor scooters and mopeds.
- 10 Passenger road vehicles, other.

Freight Road Transport Vehicles

- 21 General use truck, dump truck, fire apparatus.
- 22 Hauling rig (non-motorized), pickup truck.
- 23 Trailer, semi; designed for freight (with or without tractor).
- 24 Tank truck, nonflammable cargo. Includes milk and water tankers, liquid nitrogen tankers.
- 25 Tank truck, flammable or combustible liquid, chemical cargo.
- 26 Tank truck, compressed gas or LP gas.
- 27 Garbage, waste, refuse truck. Includes recyclable material collection trucks. Excludes roll-on-type trash containers (73).
- 20 Freight road transport vehicles, other.

Rail Transport Vehicles

- 31 Diner car, passenger car.
- 32 Box, freight, or hopper car.
- 33 Tank car.
- 34 Container or piggyback car (see 73 for container).
- 35 Engine/locomotive.
- 36 Rapid transit car, trolley (self-powered for use on track). Includes self-powered rail passenger vehicles.
- 37 Maintenance equipment car. Includes cabooses and cranes.
- 30 Rail transport vehicles, other.

Water Vessels

- 41 Boat less than 65 ft (20 m) in length overall. Excludes commercial fishing vessels (48).
- 42 Boat or ship equal to or greater than 65 ft (20 m) in length but less than 1,000 tons.
- 43 Cruise liner or passenger ship equal to or greater than 1,000 tons.
- 44 Tank ship.
- 45 Personal water craft. Includes one- or two-person recreational water craft.
- 46 Cargo or military ship equal to or greater than 1,000 tons. Includes vessels not classified in 44 and 47.
- 47 Non-self-propelled vessel. Includes all vessels without their own motive power, such as towed petroleum balloons, barges, and other towed or towable vessels. Excludes sailboats (49).
- 48 Commercial fishing or processing vessel. Includes shell fishing vessels.
- 49 Sailboats. Includes those with auxiliary power.
- 40 Water vessels, other.

Aircraft

- 51 Personal, business, utility aircraft less than 12,500 lb (5,670 kg) gross weight. Includes gliders.
- 52 Personal, business, utility aircraft equal to or greater than 12,500 lb (5,670 kg) gross weight.
- 53 Commercial aircraft: propeller-driven, fixed-wing. Includes turbo props.
- 54 Commercial aircraft: jet and other turbine-powered, fixed-wing.
- 55 Helicopters, nonmilitary. Includes gyrocopters.
- 56 Military fixed-wing aircraft. Includes bomber, fighter, patrol, vertical takeoff and landing (fixed-wing vertical stall) aircraft.
- 57 Military non-fixed-wing aircraft. Includes helicopters.
- 58 Balloon vehicles. Includes hot air balloons and blimps.
- 50 Air, other.

Industrial, Agricultural, Construction Vehicles

- 61 Construction vehicle. Includes bulldozers, shovels, graders, scrapers, trenchers, plows, tunneling equipment, and road pavers.
- 63 Loader, industrial. Includes fork lifts, industrial tow motors, loaders, and stackers.
- 64 Crane.
- 65 Agricultural vehicle, baler, chopper (farm use).
- 67 Timber harvest vehicle. Includes skycars, loaders.
- 60 Industrial, construction, or agricultural vehicles, other.

Mobile Property, Miscellaneous

| | |
|----|--|
| 71 | Home, garden vehicle. Includes riding lawnmowers, snow removal vehicles, riding tractors. Excludes equipment where operator does not ride. See Equipment Involved in Ignition. |
| 73 | Shipping container, mechanically moved. Includes haulable trash containers, intermodal shipping containers. |
| 74 | Armored vehicle. Includes armored cars and military vehicles. Excludes armored aircraft and ships. |
| 75 | Missile, rocket, and space vehicles. |
| 76 | Aerial tramway vehicle. |
| 00 | Mobile property, other. |
| NN | No mobile property. |

| MOBILE PROPERTY MAKE CODES | | | | | |
|----------------------------|----------------------|----|---------------|----|----------------|
| AC | Acura | IF | Infiniti | PT | Peterbilt |
| AR | Alfa Romeo | IN | International | PU | Peugeot |
| AN | Antique Vehicle | IS | Isuzu | PI | Pierce |
| AM | Aston Martin | IT | Italjet | PL | Plymouth |
| AT | ATK | IV | Iveco | PN | Pontiac |
| AU | Audi | JA | Jaguar | PR | Porsche |
| BE | Beta | JE | Jeep | RG | Range Rover |
| BM | BMW | KA | Kawasaki | RN | Rogue (Ottawa) |
| BL | Buell | KE | Kenworth | RR | Rolls Royce |
| BU | Buick | KI | Kia | SB | Saab |
| CD | Cadillac | KT | KTM | SA | Saturn |
| CP | Caterpillar | LR | Land Rover | SC | Scania |
| CH | Chevrolet | LE | Lexus | SD | Simon Duplex |
| CR | Chrysler | LI | Lincoln | ST | Sterling |
| CV | Classic Vehicle | LO | Lotus | SU | Subaru |
| CC | Crane Carrier (CCC) | MK | Mack | SZ | Suzuki |
| DA | Daihatsu | ML | Maely | TO | Toyota |
| DR | Diamond Reo | MA | Maico | TR | Triumph |
| DO | Dodge | MH | Marmon | UD | UD |
| DU | Ducati | MS | Maserati | UT | Utlmaster |
| EA | Eagle | MZ | Mazda | VE | Vespa |
| FE | Ferrari | MB | Mercedes Benz | VO | Volkswagen |
| FO | Ford | MC | Mercury | VL | Volvo |
| FR | Freightliner | MR | Merkur | VG | Volvo GMC |
| FW | FWD | MT | Mitsubishi | WK | Walker |
| GE | Geo | MO | Montesa | WL | Walter |
| GM | GMC (General Motors) | MG | Moto Guzzi | WS | Western Star |
| HD | Harley Davidson | MM | Moto Morini | WG | White GMC |
| HI | Hino | NA | Navistar | YA | Yamaha |
| HO | Honda | NI | Nissan | YU | Yugo |
| HU | Husqvarna | OL | Oldsmobile | OO | Other Make |
| HY | Hyundai | OS | Oshkosh | | |

SECTION 0

0 HazMat Disposition ☆*Definition*

The fire department either completed the handling of the hazardous materials incident or the incident was released to another agency or to the property owner for completion.

Purpose

This element assists in understanding the extent to which the fire department is involved in resolving the incident and the frequency in which other agencies or contractors are used for incident mitigation.

Entry

Check or mark the box that best describes the final disposition of the incident by the fire department.

Example

The scene was released to a qualified cleanup contractor (7):

| 0 HazMat Disposition ☆ | |
|------------------------|--|
| 1 | <input type="checkbox"/> Completed by fire service only |
| 2 | <input type="checkbox"/> Completed w/fire service present |
| 3 | <input type="checkbox"/> Released to local agency |
| 4 | <input type="checkbox"/> Released to county agency |
| 5 | <input type="checkbox"/> Released to state agency |
| 6 | <input type="checkbox"/> Released to federal agency |
| 7 | <input checked="" type="checkbox"/> Released to private agency |
| 8 | <input type="checkbox"/> Released to property owner or manager |

HAZMAT DISPOSITION CODES

- | | |
|---|--|
| 1 | Completed by fire service only. |
| 2 | Completed with fire service present. |
| 3 | Released to local agency. |
| 4 | Released to county agency. |
| 5 | Released to State agency. |
| 6 | Released to Federal agency. |
| 7 | Released to private agency. |
| 8 | Released to property owner or manager. |

SECTION P

P HazMat Civilian Casualties*Definition*

The number of civilians injured or killed, either as a result of a HazMat incident or the action of handling the HazMat incident. The term *injury* refers to physical damage to a person that requires either:

- ☛ Treatment within 1 year of the incident by a practitioner of medicine,

OR

- ☛ At least 1 day of restricted activity immediately following the incident. An injured person is a casualty.

Purpose

The collection of information on the number of persons injured or killed as a result of their contact or exposure to hazardous materials that have been spilled or released can provide a concise measure of the scope of the human cost associated with hazardous materials incidents. This information can also be correlated with container types, transport conditions, actions taken, and other data to help understand how to reduce future HazMat injuries.

Entry

Identify and record separately the number of civilians injured and the number of civilians killed as a result of a HazMat incident.

- ☛ The optional EMS Module may be completed for all non-fire service persons injured or killed as a result of their contact or exposure to hazardous materials. The Civilian Fire Casualty Module should not be used for this purpose unless the release resulted in a fire and the civilians were injured as a result of the fire. The Fire Service Casualty Module should be completed for all fire service personnel injured or killed as a result of their contact or exposure to hazardous materials.
- ☛ HazMat civilian casualties should not be entered in Block H1 of the Basic Module.

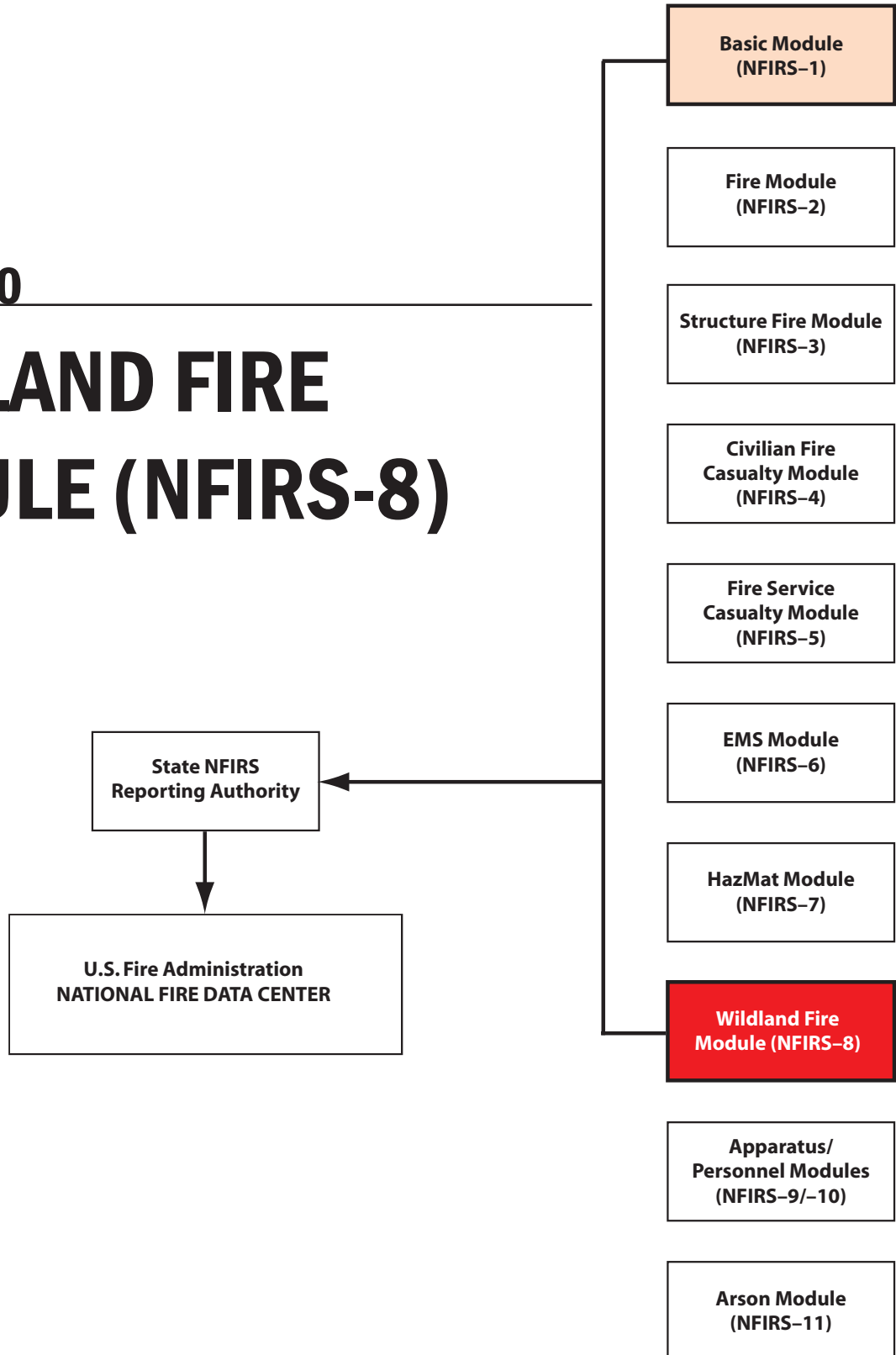
Example

One hundred civilians had varying degrees of nausea and dizziness as a result of the HazMat release:

| P HazMat Civilian Casualties | |
|---|---|
| Deaths | Injuries |
| <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |

Chapter 10

WILDLAND FIRE MODULE (NFIRS-8)



A

FDID ☆ State ☆ Incident Date ☆ Station Incident Number ☆ Exposure ☆

MM DD YYYY

Delete Change

B Alternate Location Specification

Enter Latitude/Longitude OR Township/Range/Section/Subsection Meridian if Section B on the Basic Module is not completed.

Latitude Longitude

OR

Township Range East West

Section Subsection Meridian

C Area Type ☆

1 Rural, farms >50 acres
 2 Urban (heavily populated)
 3 Rural/Urban or suburban
 4 Urban-wildland interface area

D1 Wildland Fire Cause ☆

1 Natural source 8 Misuse of fire
 2 Equipment 0 Other
 3 Smoking U Undetermined
 4 Open/Outdoor fire
 5 Debris/Vegetation burn
 6 Structure (exposure)
 7 Incendiary

D2 Human Factors Contributing to Ignition ☆

Check as many boxes as are applicable. None

1 Asleep
 2 Possibly impaired by alcohol or drugs
 3 Unattended person
 4 Possibly mentally disabled
 5 Physically disabled
 6 Multiple persons involved
 7 Age was a factor

D3 Factors Contributing to Ignition ☆ None

#1 #2

D4 Fire Suppression Factors None

Enter up to three factors

#1 #2 #3

E Heat Source ☆

F Mobile Property Type None

G Equipment Involved in Ignition None

H Weather Information

NFDRS Weather Station ID

Weather Type Wind Direction

Wind Speed (mph) Air Temperature F° Check if negative

Relative Humidity % Fuel Moisture % Fire Danger Rating

I1 Number of Buildings Ignited None

Number of buildings that were ignited in Wildland fire.

I2 Number of Buildings Threatened None

Number of buildings that were threatened by Wildland fire but were not involved.

I3 Total Acres Burned ☆

 , , .

I4 Primary Crops Burned

Identify up to 3 crops if any crops were burned.

Crop 1

Crop 2

Crop 3

J Property Management

Indicate the percent of the total acres burned for each ownership type then check the ONE box to identify the property ownership at the origin of the fire. If the ownership at origin is Federal, enter the Federal Agency Code.

Ownership % Total Acres Burned

U Undetermined %

Private

1 Tax paying %
 2 Non-tax paying %

Public

3 City, town, village, local %
 4 County or parish %
 5 State or province %
 6 Federal %
 Federal Agency Code

7 Foreign %
 8 Military %
 0 Other %

K NFDRS Fuel Model at Origin

Enter the code and the descriptor corresponding to the NFDRS Fuel Model at Origin.

L1 Person Responsible for Fire

1 Identified person caused fire
 2 Unidentified person caused fire
 3 Fire not caused by person

If person identified, complete the rest of Section L.

L2 Gender of Person Involved

1 Male
 2 Female

L3 Age or Date of Birth

Age in Years Date of Birth

 OR Month Day Year

L4 Activity of Person Involved

Activity of Person Involved

M Type of Right-of-Way None

Required if less than 100 feet.

 Feet Type of right-of-way

Horizontal distance from right-of-way

N Fire Behavior

These optional descriptors refer to observations made at the point of initial attack.

 Feet

Elevation

Relative position on slope

Aspect

 Feet

Flame length

 Chains per Hour

Rate of spread

CHAPTER 10

WILDLAND FIRE MODULE (NFIRS-8)

Historically, NFIRS data have not proven useful in understanding the nature and magnitude of the wildland fire problem. The optional Wildland Fire Module, in conjunction with the Basic Module and other optional modules, attempts to rectify this problem by capturing data about the number of acres burned, the type of materials involved, the conditions that contributed to the ignition and spread of wildland fires, and the resources needed to control or extinguish them.

The purpose of the Wildland Fire Module is to document reportable wildland fires:

Reportable Wildland Fire: Any fire involving vegetative fuels, including a prescribed fire, that occurs in the wildland or urban-wildland interface areas, including those fires that threaten or consume structures.

Prescribed fires are included in this definition of reportable fires to better understand the role of fire in the wildland ecosystem.

In accordance with your State or local policy, the Wildland Fire Module may be used in place of the Fire Module (NFIRS-2) for the following Incident Type recorded on the Basic Module (Section C).

- 140 – Natural Vegetation Fire, Other.
- 141 – Forest, Woods, or Wildland Fire.
- 142 – Brush, or Brush-and-Grass Mixture Fire.
- 143 – Grass Fire.
- 160 – Special Outside Fire, Other.
- 170 – Cultivated Vegetation, Crop Fire, Other.
- 171 – Cultivated Grain or Crop Fire.
- 172 – Cultivated Orchard or Vineyard Fire.
- 173 – Cultivated Trees or Nursery Stock Fire.
- 561 – Unauthorized Burning.
- 631 – Authorized Controlled Burning.
- 632 – Prescribed Fire.

- ☛ A prescribed fire that escapes management is a hostile fire (Incident Type 141). A hostile fire cannot become a prescribed fire, but the management strategy (actions taken) may change.

Definitions

For the purpose of wildland fire reporting, the following definitions are used:

Prescribed Fire: Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist prior to ignition.

Urban-Wildland Interface Area: The geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

Urban-Wildland Interface Fire: Any fire, other than a prescribed fire, where fire suppression tactics were influenced by a geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

Wildland Fire: Any fire involving vegetative fuels, other than a prescribed fire, that occurs in the wildland. A wildland fire may expose and possibly consume structures (Incident Type 141).

Wildland: An area where development is essentially nonexistent, except for roads, railroads, power lines, and similar facilities.

The Wildland Fire Module permits wildland fires to be profiled in detail for resource allocation, incident management, and fire impact analysis.

SECTION A

The guidance and directions for completing Section A of the Wildland Fire Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Wildland Fire Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If this report is for an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous Wildland Fire Module or a deletion of all information regarding the incident.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this wildland incident and now want to have the data on this incident deleted from the database. If this box is marked, complete Section A and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Alternate Location Specification

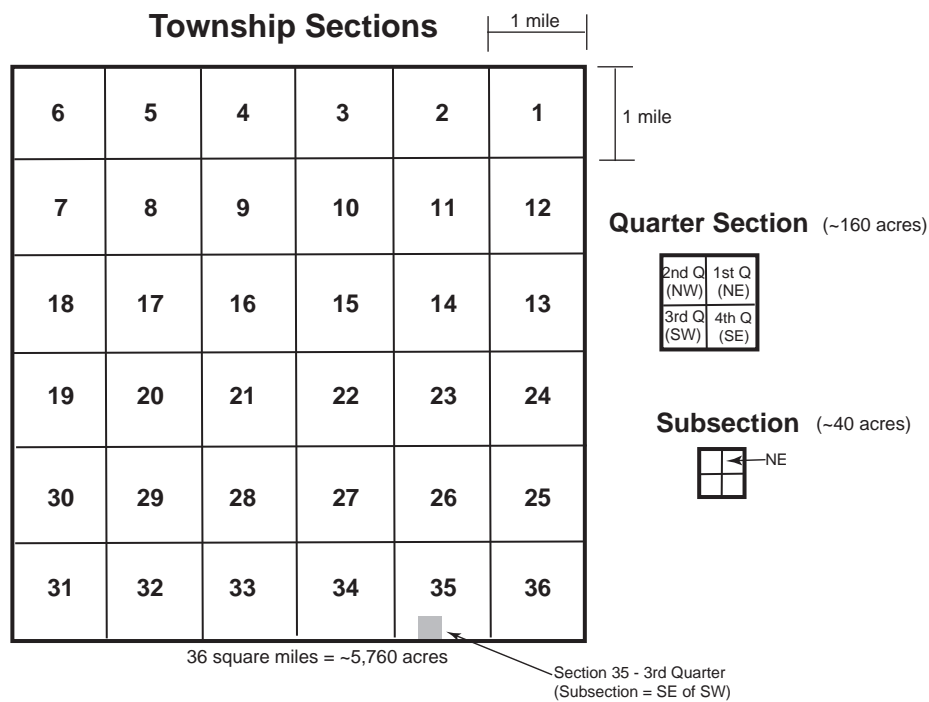
- ☛ Enter either latitude/longitude or section/township/range/subsection/meridian location information. Do not enter both.
- ☛ To use this addressing feature, the alternate address box on the Basic Module (Section B) must be checked or marked.

Definition

The location of the wildland fire. This block documents the geographical location of the wildland fire and is used in place of Section B of the Basic Module when traditional addressing methods are not suitable.

Latitude and Longitude: Angular coordinates measured with respect to the center of the Earth. The value is expressed in degrees and minutes. Valid inputs for Latitude are in the range -90 to 90 (north is positive). Valid inputs for Longitude are in the range -180 to 180 (east is positive).

Township: Consists of 36 sections arranged in a six-by-six array, measuring 6 miles by 6 miles. Sections are numbered beginning with the northeast-most section, proceeding west to 6, then south along the west edge of the township and to the east. This array is depicted below:



The last digit (decimal point) in this field denotes quarter Townships represented by the following coding:

- | | | | |
|---|-------------|---|-------------|
| 3 | 1st Quarter | 7 | 3rd Quarter |
| 5 | 2nd Quarter | 0 | 4th Quarter |

Range: Assigned to a township by measuring east or west of a principal meridian.

Section: Basic unit of the system, a square tract of line 1 mile by 1 mile containing 640 acres.

Subsection: Within each section, the land is referred to as half and quarter sections. A one-sixteenth division is called a subsection (sometimes referred to as a quarter of a quarter). A valid entry is one of the following 16 possibilities:

| SUBSECTION CODES | | | |
|------------------|------------------------|------|------------------------|
| NENE | Northeast of northeast | NWNE | Northwest of northeast |
| NENW | Northeast of northwest | NWNW | Northwest of northwest |
| NESE | Northeast of southeast | NWSE | Northwest of southeast |
| NESW | Northeast of southwest | NWSW | Northwest of southwest |
| SENE | Southeast of northeast | SWNE | Southwest of northeast |
| SENW | Southeast of northwest | SWNW | Southwest of northwest |
| SESE | Southeast of southeast | SWSE | Southwest of southeast |
| SESW | Southeast of southwest | SWSW | Southwest of southwest |

☛ In some regions, the term subsection is not used. Thus, it is permissible to leave this field blank.

Principal Meridian: Reference or beginning point for measuring east or west ranges.

| MERIDIAN CODES | | | |
|----------------|---------------------|----|---------------------|
| 01 | First Principal | 17 | Indian |
| 02 | Second Principal | 18 | Louisiana |
| 03 | Third Principal | 19 | Michigan |
| 04 | Fourth Principal | 20 | Principal |
| 05 | Fifth Principal | 21 | Mt. Diablo |
| 06 | Sixth Principal | 22 | Navajo |
| 07 | Black Hills | 23 | New Mexico |
| 08 | Boise | 24 | St. Helena |
| 09 | Chickasaw | 25 | St. Stephens |
| 10 | Choctaw | 26 | Salt Lake |
| 11 | Cimarron | 27 | San Bernardino |
| 12 | Copper River | 28 | Seward |
| 13 | Fairbanks | 29 | Tallahassee |
| 14 | Gila and Salt River | 30 | Uintah |
| 15 | Humboldt | 31 | Ute |
| 16 | Huntsville | 32 | Washington |
| | | 33 | Willamette |
| | | 34 | Wind River |
| | | 35 | Ohio |
| | | 36 | Great Miami River |
| | | 37 | Muskingum River |
| | | 38 | Ohio River |
| | | 39 | First Scioto River |
| | | 40 | Second Scioto River |
| | | 41 | Third Scioto River |
| | | 42 | Ellicotts Line |
| | | 43 | 12 Mile Square |
| | | 44 | Kateel River |
| | | 45 | Umat |
| | | UU | Undetermined |

Purpose

This information may be of value to local authorities for contacting the owner in connection with the fire and in making a long-term analysis of wildland fires in similar areas or on property under the same ownership.

Entry

Enter the alternate location information using the specific Latitude and Longitude where the fire started or, alternatively, enter the Section, Township, Range, and Meridian.

Example

The wildland fire (1) occurred in Fort Collins, Colorado, at a latitude of 40°45' N and longitude of 105°5' W; or (2) was located on John Wayne's boyhood family farm in California located at Section 34, Township 7N, Range 12W, San Bernardino (27) Meridian:

B Alternate Location Specification
 Enter Latitude/Longitude OR Township/Range/Section/Subsection/
 Meridian if Section B on the Basic Module is not completed.

.
 Latitude Longitude

OR

.
 Township Range

North East
 South West

Section Subsection Meridian

OR

B Alternate Location Specification
 Enter Latitude/Longitude OR Township/Range/Section/Subsection/
 Meridian if Section B on the Basic Module is not completed.

.
 Latitude Longitude

OR

North East
 South West

.
 Township Range

Section Subsection Meridian

SECTION C

C Area Type ☆

Definition

A general description of the area where the wildland fire occurred.

Purpose

Aggregate information on the areas where wildland fires occur helps determine the level of risk from fires in densely populated areas versus those in rural areas. This field also documents fires occurring in urban-wildland interface areas.

Entry

Check or mark the box that best describes the area type where the wildland fire occurred.

Example

The wildland fire occurred on a 100-acre farm in a rural area (1):

C Area Type ☆

1 Rural, farms >50 acres
 2 Urban (heavily populated)
 3 Rural/urban or suburban
 4 Urban-wildland interface area

AREA TYPE CODES

- 1 Rural, open fields, forests, or cultivated land greater than 50 acres that is located away from any concentrated housing areas.
- 2 Urban, cities, or heavily populated areas.
- 3 Rural/Urban or suburban. Includes a predominantly residential area outlying an urban area. May include small open fields, forests, and cultivated land.
- 4 Urban-wildland interface area. Includes geographical area where structures and other human development meets or intermingles with wildland/vegetative fuels.

SECTION D

This section collects information on the factors and causes of the fire's ignition, and what conditions may have affected fire suppression efforts.

D¹ Wildland Fire Cause ☆

Definition

This block provides for the broadest classification of ignition causes consistent with the “General Fire Causes” adopted by the National Wildfire Coordinating Group (NWCG).

Purpose

The primary use of this information is to distinguish between human- and nature-caused wildland fires.

Entry

Check or mark the box that best describes the cause of the wildland fire.

- ☛ Wildland Fire Cause is a critical data element, and it is important to complete the additional blocks in this module to provide a better understanding of how and why the fire started.

Example

A discarded cigarette (3) started the wildland fire:

| D ¹ Wildland Fire Cause ☆ | | | |
|--------------------------------------|--|---|---|
| 1 | <input type="checkbox"/> Natural source | 8 | <input type="checkbox"/> Misuse of fire |
| 2 | <input type="checkbox"/> Equipment | 0 | <input type="checkbox"/> Other |
| 3 | <input checked="" type="checkbox"/> Smoking | U | <input type="checkbox"/> Undetermined |
| 4 | <input type="checkbox"/> Open/Outdoor fire | | |
| 5 | <input type="checkbox"/> Debris, vegetation burn | | |
| 6 | <input type="checkbox"/> Structure (exposure) | | |
| 7 | <input type="checkbox"/> Incendiary | | |

WILDLAND FIRE CAUSE CODES

- 1 Natural source.
- 2 Equipment.
- 3 Smoking.
- 4 Open/Outdoor fire.
- 5 Debris, vegetation burn.
- 6 Structure (exposure).
- 7 Incendiary.
- 8 Misuse of fire.
- 0 Wildland fire cause, other.
- U Undetermined.

D² Human Factors Contributing to Ignition ☆*Definition*

The human condition or situation that allowed the heat source and combustible material to combine to ignite the fire.

Purpose

Combined with Wildland Fire Cause and Factors Contributing to Ignition, this element explains how and why the fire started. The data element Age Was a Factor is particularly useful in tracking juvenile firesetter trends when used in combination with Gender of Person Involved (Block L2) and Age or Date of Birth (Block L3). It can also indicate whether a fire is potentially preventable through public education or other strategies.

Entry

Check or mark the boxes that best describe any human factors that contributed to the ignition of the wildland fire. Multiple factors can be selected. If human factors were not involved or cannot be determined, check or mark the None box only.

Example

The camper fell asleep (1) after starting a campfire that went out of control:

| | | |
|---------------------------------------|--|-------------------------------|
| D² | Human Factors Contributing to Ignition ☆ | <input type="checkbox"/> None |
| Check as many boxes as are applicable | | |
| 1 | <input checked="" type="checkbox"/> Asleep | |
| 2 | <input type="checkbox"/> Possibly impaired by alcohol or drugs | |
| 3 | <input type="checkbox"/> Unattended person | |
| 4 | <input type="checkbox"/> Possibly mentally disabled | |
| 5 | <input type="checkbox"/> Physically disabled | |
| 6 | <input type="checkbox"/> Multiple persons involved | |
| 7 | <input type="checkbox"/> Age was a factor | |

HUMAN FACTORS CONTRIBUTING TO IGNITION CODES

- 1 Asleep. Includes fires that result from a person falling asleep while smoking.
- 2 Possibly impaired by alcohol or drugs. Includes people who fall asleep or act recklessly or carelessly as a result of drugs or alcohol. Excludes people who simply fall asleep (1).
- 3 Unattended or unsupervised person. Includes “latch key” situations whether the person involved is young or old and situations where the person involved lacked supervision or care.
- 4 Possibly mentally disabled. Excludes impairments of a temporary nature such as those caused by drugs or alcohol (2).
- 5 Physically disabled.
- 6 Multiple persons involved. Includes gang activity.
- 7 Age was a factor.
- N None.

D³ Factors Contributing to Ignition ☆

☛ Factors Contributing to Ignition was known as Ignition Factors in NFIRS 4.1.

Definition

The contributing factors that allowed the heat source and combustible material to combine to ignite the fire.

Purpose

When used in conjunction with other elements such as Wildland Fire Cause, Equipment Involved in Ignition, Heat Source, and Human Factors, this element explains how and why the fire started. The analysis of how these elements interact provides valuable information to guide and direct fire prevention and fire safety education programs.

Entry

Enter the two-digit code and description for up to two factors that contributed to the ignition of the wildland fire. The primary factor should be entered first. If it is known that no factors contributed to ignition, check or mark the None box only; if uncertain, leave the block blank.

Example

The campers placed their trash bag too close to the cooking fire (12 and 74):

| | | | |
|----------------------|---|-------------------------------|-----------------|
| D₃ | Factors Contributing to Ignition ☆ | <input type="checkbox"/> None | |
| #1 | 1 2 Too close | #2 | 7 4 Open fire |

FACTORS CONTRIBUTING TO IGNITION CODES

Misuse of Material or Product

- 11 Abandoned or discarded materials or products. Includes discarded cigarettes, cigars, tobacco embers, hot ashes, or other burning matter. Excludes outside fires left unattended.
- 12 Heat source too close to combustibles.
- 13 Cutting, welding too close to combustibles.

- 14 Flammable liquid or gas spilled. Excludes improper fueling technique (15) and release due to improper container (18).
- 15 Improper fueling technique. Includes overfueling, failure to ground. Excludes fuel spills (14) and using the improper fuel (27).
- 16 Flammable liquid used to kindle fire.
- 17 Washing part or material, painting with flammable liquid.
- 18 Improper container or storage procedure. Includes gasoline in unimproved containers, gas containers stored at excessive temperature, and storage conditions that lead to spontaneous ignition.
- 19 Playing with heat source. Includes playing with matches, candles, and lighters and bringing combustibles into a heat source.
- 10 Misuse of material or product, other.

Mechanical Failure, Malfunction

- 21 Automatic control failure.
- 22 Manual control failure.
- 23 Leak or break. Includes leaks or breaks of containers or pipes. Excludes operational deficiencies and spill mishaps.
- 25 Worn out.
- 26 Backfire. Excludes fires originating as a result of hot catalytic converters (41).
- 27 Improper fuel used. Includes the use of gasoline in a kerosene heater and the like.
- 20 Mechanical failure, malfunction, other.

Electrical Failure, Malfunction

- 31 Water-caused short-circuit arc.
- 32 Short-circuit arc from mechanical damage.
- 33 Short-circuit arc from defective, worn insulation.
- 34 Unspecified short-circuit arc.
- 35 Arc from faulty contact, broken conductor. Includes broken power lines and loose connections.
- 36 Arc, spark from operating equipment, switch, or electric fence.
- 37 Fluorescent light ballast.
- 30 Electrical failure, malfunction, other.

Design, Manufacturing, Installation Deficiency

- 41 Design deficiency.
- 42 Construction deficiency.
- 43 Installation deficiency.
- 44 Manufacturing deficiency.
- 40 Design, manufacturing, installation deficiency, other.

Operational Deficiency

- 51 Collision, knock down, run over, turn over. Includes automobiles and other vehicles.
- 52 Accidentally turned on, not turned off.
- 53 Equipment unattended.
- 54 Equipment overloaded.
- 55 Failure to clean. Includes lint and grease buildups in chimneys, stove pipes.
- 56 Improper startup/shutdown procedure.
- 57 Equipment not used for purpose intended. Excludes overloaded equipment (54).
- 58 Equipment not operated properly.
- 50 Operational deficiency, other.

Natural Condition

- 61 High wind.
- 62 Storm.

- 63 High water, including floods.
- 64 Earthquake.
- 65 Volcanic action.
- 66 Animal.
- 60 Natural condition, other.

Fire Spread or Control

- 71 Exposure fire.
- 72 Rekindle.
- 73 Outside/Open fire for debris or waste disposal.
- 74 Outside/Open fire for warming or cooking.
- 75 Agriculture or land management burns. Includes prescribed burns.
- 70 Fire spread or control, other.

Other Human Factors Contributing to Ignition

- 00 Human factors contributing to ignition, other.
- NN None.
- UU Undetermined.

D⁴ Fire Suppression Factors

Definition

Factors that contributed to the growth, spread, or suppression of the fire. This is used to report incident information that directly impacted the ignition, spread of fire, incident complexity, or presence of hazardous conditions.

Purpose

Fire suppression factors provide essential guides for planning strategic and tactical procedures for future incidents, as well as for identifying fire training and equipment needs.

Entry

Enter the three-digit code and description for up to three fire suppression factors or conditions that constituted a significant fire suppression problem or affected how the fire was managed. If no factors were involved in the fire suppression effort, check or mark the None box.

Example

A large brush fire was burning on a military installation (462) in an area where unexploded munitions (327) could be encountered. The incident commander decided the best course of action was to allow the fire to burn but to establish a control line outside the perimeter of the installation:

| D ⁴ Fire Suppression Factors | | <input type="checkbox"/> None |
|---|-----------|-------------------------------|
| #1 | 4 6 2 | Military activity |
| #2 | 3 2 7 | Explosive hazard |
| #3 | | |

Enter up to three factors

FIRE SUPPRESSION FACTORS CODES**Building Construction or Design**

- 112 Roof collapse.
- 113 Roof assembly combustible.
- 121 Ceiling collapse.
- 125 Holes or openings in walls or ceilings.
- 131 Wall collapse.
- 132 Difficult to ventilate.
- 134 Combustible interior finish.
- 137 Balloon construction.
- 138 Internal arrangement of partitions.
- 139 Internal arrangement of stock or contents.
- 141 Floor collapse.
- 151 Lack of fire barrier walls or doors.
- 153 Transoms.
- 161 Attic undivided.
- 166 Insulation combustible.
- 173 Stairwell not enclosed.
- 174 Elevator shaft.
- 175 Dumbwaiter.
- 176 Duct, vertical.
- 177 Chute: rubbish, garbage, laundry.
- 181 Supports unprotected.
- 182 Composite plywood I-beam construction.
- 183 Composite roof/floor sheathing construction.
- 185 Wood truss construction.
- 186 Metal truss construction.
- 187 Fixed burglar protection assemblies (bars, grills on windows or doors).
- 188 Quick release failure of bars on windows or doors.
- 192 Previously damaged by fire.
- 100 Building construction or design, other.

Act or Omission

- 213 Doors left open or outside door unsecured.
- 214 Fire doors blocked or did not close properly.
- 218 Violation of applicable or locally adopted fire, building, or life safety code.
- 222 Illegal and clandestine drug operation.
- 232 Intoxication, drugs or alcohol.
- 253 Riot or civil disturbance. Includes hostile acts.
- 254 Person(s) interfered with operations.
- 283 Accelerant used.
- 200 Act or omission, other.

On-Site Materials

- 311 Aisles blocked or improper width.
- 312 Significant and unusual fuel load from structure components.
- 313 Significant and unusual fuel load from contents of structure.
- 314 Significant and unusual fuel load outside from natural environment conditions.
- 315 Significant and unusual fuel load from man-made condition.
- 316 Storage, improper.
- 321 Radiological hazard onsite.
- 322 Biological hazard onsite.

- 323 Cryogenic hazard onsite.
- 324 Hazardous chemical, corrosive material, or oxidizer.
- 325 Flammable/Combustible liquid hazard.
- 327 Explosives hazard present.
- 331 Decorations. Includes crepe paper, garland.
- 341 Natural or other lighter-than-air gas present.
- 342 Liquefied petroleum (LPG) or other heavier-than-air gas present.
- 361 Combustible storage >12 ft to top of storage. Excludes rack storage (362).
- 362 High rack storage.
- 300 On-site materials, other.

Delays

- 411 Delayed detection of fire.
- 412 Delayed reporting of fire. Includes occupants investigating the source of the alarm or smoke before calling the fire department.
- 413 Alarm system malfunction.
- 414 Alarm system shut off for valid reason. Includes systems being maintained or repaired.
- 415 Alarm system inappropriately shut off.
- 421 Unable to contact fire department. Includes use of wrong phone number and cellular mobile phone problems.
- 424 Information incomplete or incorrect.
- 425 Communications problem; system failure of local, public, or other telephone network.
- 431 Blocked or obstructed roadway. Includes blockages due to construction or illegal parking.
- 434 Poor or no access for fire department apparatus.
- 435 Traffic delay.
- 436 Trouble finding location.
- 437 Size, height, or other building characteristic delayed access to fire.
- 438 Power lines down/arcing.
- 443 Poor access for firefighters.
- 444 Secured area.
- 445 Guard dogs.
- 446 Aggressive animals. Excludes guard dogs (445).
- 447 Suppression delayed due to evaluation of hazardous or unknown materials at incident scene.
- 448 Locked or jammed doors.
- 451 Apparatus failure before arrival at incident.
- 452 Hydrants inoperative.
- 461 Airspace restriction.
- 462 Military activity.
- 481 Closest apparatus unavailable.
- 400 Delays, other.

Protective Equipment

- 510 Automatic fire suppression system problem. Includes system failures, shutoffs, inadequate protection to cover hazard, and the like.
- 520 Automatic sprinkler or standpipe/fire department connection problem. Includes damage, blockage, failure, improper installation.
- 531 Water supply inadequate: private.
- 532 Water supply inadequate: public.
- 543 Electrical power outage.
- 561 Failure of rated fire protection assembly. Includes fire doors, fire walls, floor/ceiling assemblies, and the like.
- 562 Protective equipment negated illegally or irresponsibly. Includes fire doors, dampers, sprinklers, and the like.
- 500 Protective equipment, other.

Egress/Exit Problems

- 611 Occupancy load above legal limit.
- 612 Evacuation activity impeded fire department access.
- 613 Window type impeded egress. Includes windows too small.
- 614 Windowless wall.
- 621 Young occupants.
- 622 Elderly occupants
- 623 Physically disabled occupants.
- 624 Mentally disabled occupants.
- 625 Physically restrained/confined occupants.
- 626 Medically disabled occupants.
- 641 Special event.
- 642 Public gathering.
- 600 Egress/Exit problems, other.

Natural Conditions

- 711 Drought or low fuel moisture.
- 712 Humidity, low.
- 713 Humidity, high.
- 714 Temperature, low.
- 715 Temperature, high.
- 721 Fog.
- 722 Flooding.
- 723 Ice.
- 724 Rain.
- 725 Snow.
- 732 Wind. Includes hurricanes and tornados.
- 741 Earthquake.
- 760 Unusual vegetation fuel loading
- 771 Threatened or endangered species.
- 772 Timber sale activity.
- 773 Fire restriction.
- 774 Historic disturbance (past fire history can dictate fire behavior).
- 775 Urban-wildland interface area.
- 700 Natural conditions, other.

Other Fire Suppression Factors

- 000 Fire suppression factors, other.
- NNN None.

SECTION E**E Heat Source ☆**

☛ Heat Source was known as Form of Heat of Ignition in NFIRS 4.1.

Definition

The specific source of the heat energy that started the fire.

Purpose

This information, combined with other factors in the ignition sequence, permits analysis of how fires start. Also, some heat sources (e.g., cigarettes, lighters) are objects whose frequency of involvement in fires is of direct interest for fire prevention efforts.

Entry

Enter the two-digit code and description that best describes the heat source that ignited the fire.

Example

A discarded cigarette (61) ignited the brush, resulting in a wildland fire:

| | |
|---|----------------|
| E | Heat Source ☆ |
| | 61 Cigarette |

HEAT SOURCE CODES

Operating Equipment

- 11 Spark, ember, or flame from operating equipment.
- 12 Radiated or conducted heat from operating equipment.
- 13 Electrical arcing.
- 10 Heat from operating equipment, other.

Hot or Smoldering Object

- 41 Heat, spark from friction. Includes overheated tires.
- 42 Molten, hot material. Includes molten metal, hot forging, hot glass, hot metal fragment, brake shoe, hot box, and slag from arc welding operations.
- 43 Hot ember or ash. Includes hot coals, coke, and charcoal; and sparks or embers from a chimney that ignite the roof of the same structure. Excludes flying brand, embers, and sparks (83); and embers accidentally escaping from operating equipment (11).
- 40 Hot or smoldering object, other.

Explosives, Fireworks

- 51 Munitions. Includes bombs, ammunition, and military rockets.
- 53 Blasting agent, primer cord, black powder fuse. Includes fertilizing agents, ammonium nitrate, and sodium, potassium, or other chemical agents.
- 54 Fireworks. Includes sparklers, paper caps, party poppers, and firecrackers.
- 55 Model and amateur rockets.
- 56 Incendiary device. Includes Molotov cocktails and arson sets.
- 50 Explosive, fireworks, other.

Other Open Flame or Smoking Materials

- 61 Cigarette.
- 62 Pipe or cigar.
- 63 Heat from undetermined smoking material.
- 64 Match.
- 65 Lighter: cigarette lighter, cigar lighter.
- 66 Candle.
- 67 Warning or road flare; fusee.
- 68 Backfire from internal combustion engine. Excludes flames and sparks from an exhaust system (11).
- 69 Flame/Torch used for lighting. Includes gas light and gas-/liquid-fueled lantern.
- 60 Heat from open flame or smoking materials, other.

Chemical, Natural Heat Sources

- 71 Sunlight. Usually magnified through glass, bottles, etc.
- 72 Spontaneous combustion, chemical reaction.
- 73 Lightning discharge.
- 74 Other static discharge. Excludes electrical arcs (13) or sparks (11).
- 70 Chemical, natural heat sources, other.

Heat Spread From Another Fire. Excludes operating equipment.

- 81 Heat from direct flame, convection currents spreading from another fire.
- 82 Radiated heat from another fire. Excludes heat from exhaust systems of fuel-fired, fuel-powered equipment (12).
- 83 Flying brand, ember, spark. Excludes embers, sparks from a chimney igniting the roof of the same structure (43).
- 84 Conducted heat from another fire.
- 80 Heat spread from another fire, other.

Other Heat Sources

- 97 Multiple heat sources, including multiple ignitions. If one type of heat source was primarily involved, use that classification.
- 00 Heat sources, other.
- UU Undetermined.

SECTION F

F Mobile Property Type*Definition*

Property that is designed and constructed to be mobile, movable under its own power, or towed, such as an airplane, automobile, boat, cargo trailer, farm vehicle, motorcycle, or recreation vehicle.

Purpose

This data element provides detailed information to identify the specific types of mobile property involved in an incident. The data also can be used to see if the public needs to be alerted to special hazards.

Entry

If the mobile property type started the fire, but did not burn itself, enter the two-digit code and description that best describes the mobile property type. If no mobile property started the fire, check or mark the None box.

Example

A camping trailer (16) caught fire and spread to the surrounding brush:

| | | |
|----------|-----------------------------|-------------------------------|
| F | Mobile Property Type | <input type="checkbox"/> None |
| | 1, 6 | Camping trailer |

MOBILE PROPERTY TYPE CODES**Passenger Road Vehicles**

- 11 Automobile, passenger car, ambulance, limousine, race car, taxicab.
- 12 Bus, school bus. Includes “trackless” trolley buses.
- 13 Off-road recreational vehicle. Includes dune buggies, golf carts, go-carts, snowmobiles. Excludes sport utility vehicles (11) and motorcycles (18).
- 14 Motor home (has own engine), camper mounted on pickup, bookmobile.
- 15 Trailer, travel; designed to be towed.
- 16 Trailer, camping; collapsible, designed to be towed.
- 17 Mobile home, bank, classroom, or office (all designed to be towed), whether mounted on a chassis or on blocks for semipermanent use.
- 18 Motorcycle, trail bike. Includes motor scooters and mopeds.
- 10 Passenger road vehicles, other.

Freight Road Vehicles

- 21 General use truck, dump truck, fire apparatus.
- 22 Hauling rig (non-motorized), pickup truck.
- 23 Trailer, semi; designed for freight (with or without tractor).
- 24 Tank truck, nonflammable cargo. Includes milk and water tankers, liquid nitrogen tankers.
- 25 Tank truck, flammable or combustible liquid, chemical cargo.
- 26 Tank truck, compressed gas or LP gas.
- 27 Garbage, waste, refuse truck. Includes recyclable material collection trucks. Excludes roll-on-type trash containers (73).
- 20 Freight road transport vehicles, other.

Rail Transport Vehicles

- 31 Diner car, passenger car.
- 32 Box, freight, or hopper car.
- 33 Tank car.
- 34 Container or piggyback car (see 73 for container).
- 35 Engine/locomotive.
- 36 Rapid transit car, trolley (self-powered for use on track). Includes self-powered rail passenger vehicles.
- 37 Maintenance equipment car. Includes cabooses and cranes.
- 30 Rail transport vehicles, other.

Water Vessels

- 41 Boat less than 65 ft (20 m) in length overall. Excludes commercial fishing vessels (48).
- 42 Boat or ship equal to or greater than 65 ft (20 m) in length but less than 1,000 tons.
- 43 Cruise liner or passenger ship equal to or greater than 1,000 tons.
- 44 Tank ship.
- 45 Personal water craft. Includes one- or two-person recreational water craft.
- 46 Cargo or military ship equal to or greater than 1,000 tons. Includes vessels not classified in 44 and 47.
- 47 Non-self-propelled vessel. Includes all vessels without their own motive power, such as towed petroleum balloons, barges, and other towed or towable vessels. Excludes sailboats (49).
- 48 Commercial fishing or processing vessel. Includes shell fishing vessels.
- 49 Sailboats. Includes those with auxiliary power.
- 40 Water transport vessels, other.

Aircraft

- 51 Personal, business, utility aircraft less than 12,500 lb (5,670 kg) gross weight. Includes gliders.
- 52 Personal, business, utility aircraft equal to or greater than 12,500 lb (5,670 kg) gross weight.

- 53 Commercial aircraft: propeller-driven, fixed-wing. Includes turbo props.
- 54 Commercial aircraft: jet and other turbine-powered, fixed-wing.
- 55 Helicopters, nonmilitary. Includes gyrocopters.
- 56 Military fixed-wing aircraft. Includes bomber, fighter, patrol, vertical takeoff and landing (fixed-wing vertical stall) aircraft.
- 57 Military non-fixed-wing aircraft. Includes helicopters.
- 58 Balloon vehicles. Includes hot air balloons and blimps.
- 50 Air transport vehicles, other.

Industrial, Agricultural, Construction Vehicles

- 61 Construction vehicle. Includes bulldozers, shovels, graders, scrapers, trenchers, plows, tunneling equipment, and road pavers.
- 63 Loader, industrial. Includes fork lifts, industrial tow motors, loaders, and stackers.
- 64 Crane.
- 65 Agricultural vehicle, baler, chopper (farm use).
- 67 Timber harvest vehicle. Includes skycars, loaders.
- 60 Industrial, construction, or agricultural vehicles, other.

Mobile Property, Miscellaneous

- 71 Home, garden vehicle. Includes riding lawnmowers, snow removal vehicles, riding tractors. Excludes equipment where operator does not ride. See Equipment Involved in Ignition.
- 73 Shipping container, mechanically moved. Includes haulable trash containers, intermodal shipping containers.
- 74 Armored vehicle. Includes armored cars and military vehicles. Excludes armored aircraft and ships.
- 75 Missile, rocket, and space vehicles.
- 76 Aerial tramway vehicle.
- 00 Mobile property, other.
- NN No mobile property.

SECTION G

G Equipment Involved in Ignition

Definition

The piece of equipment that provided the principal heat source to cause the ignition if the equipment malfunctioned or was used improperly.

Purpose

Analysis of the equipment involved in ignition is useful for improving product safety and preventive maintenance. It is just as important to know the kind of equipment that was used improperly as it is to know the kind of equipment that malfunctioned. Misuse can be the direct result of the way the equipment is designed and constructed. When involved in ignition, equipment information provides an important part of the causal data. Equipment involved in ignition can be compared to other casual data to determine if the equipment was (or was not) operating properly.

Entry

Enter the three-digit code and description that best describes the equipment involved in ignition. If no equipment was involved in ignition, check or mark the None box.

Example

The fire was started by an overturned hibachi grill (643):

| | | |
|----------|---------------------------------------|-------------------------------|
| G | Equipment Involved in Ignition | <input type="checkbox"/> None |
| | 643 Hibachi grill | |

- ☛ An alphabetized synonym list for the following Equipment Involved in Ignition codes is presented in Appendix B.

EQUIPMENT INVOLVED IN IGNITION CODES**Heating, Ventilation, and Air Conditioning**

- 111 Air conditioner.
- 112 Heat pump.
- 113 Fan.
- 114 Humidifier, non-heat producing. Excludes heaters with built-in humidifiers (131, 132).
- 115 Ionizer.
- 116 Dehumidifier, portable.
- 117 Evaporative cooler, cooling tower.
- 121 Fireplace, masonry.
- 122 Fireplace, factory-built.
- 123 Fireplace, insert/stove.
- 124 Stove, heating.
- 125 Chimney connector, vent connector.
- 126 Chimney: brick, stone, masonry.
- 127 Chimney: metal. Includes stovepipes and flues.
- 120 Fireplace, chimney, other.
- 131 Furnace, local heating unit, built-in. Includes built-in humidifiers. Excludes process furnaces, kilns (353).
- 132 Furnace, central heating unit. Includes built-in humidifiers. Excludes process furnaces, kilns. (353)
- 133 Boiler (power, process, heating).
- 141 Heater. Includes floor furnaces, wall heaters, and baseboard heaters. Excludes catalytic heaters (142), oil-filled heaters (143), hot water heaters (152).
- 142 Heater, catalytic.
- 143 Heater, oil-filled. Excludes kerosene heaters (141).
- 144 Heat lamp.
- 145 Heat tape.
- 151 Water heater. Includes sink-mounted instant hot water heaters and waterbed heaters.
- 152 Steam line, heat pipe, hot air duct. Includes radiators and hot water baseboard heaters.
- 100 Heating, ventilation, and air conditioning, other.

Electrical Distribution, Lighting, and Power Transfer

- 211 Electrical power (utility) line. Excludes wires from the utility pole to the structure.
- 212 Electrical service supply wires; wires from utility pole to meter box.
- 213 Electric meter, meter box.
- 214 Electrical wiring from meter box to circuit breaker board, fuse box, or panel board.
- 215 Panel board (fuse); switchboard, circuit breaker board with or without ground-fault interrupter.
- 216 Electrical branch circuit. Includes armored (metallic) cable, nonmetallic sheathing, or wire in conduit.
- 217 Outlet, receptacle. Includes wall-type receptacles, electric dryer and stove receptacles.
- 218 Wall-type switch. Includes light switches.

- 219 Ground-fault interrupter (GFI), portable, plug-in.
- 210 Electrical wiring, other.
- 221 Transformer, distribution-type.
- 222 Overcurrent, disconnect equipment. Excludes panel boards.
- 223 Transformer, low-voltage (not more than 50 volts).
- 224 Generator.
- 225 Inverter.
- 226 Uninterrupted power supply (UPS).
- 227 Surge protector.
- 228 Battery charger, rectifier.
- 229 Battery. Includes all battery types.
- 231 Lamp: tabletop, floor, desk. Excludes halogen fixtures (235) and light bulbs (238).
- 232 Lantern, flashlight.
- 233 Incandescent lighting fixture.
- 234 Fluorescent lighting fixture, ballast.
- 235 Halogen lighting fixture or lamp.
- 236 Sodium, mercury vapor lighting fixture or lamp.
- 237 Portable or movable work light, trouble light.
- 238 Light bulb.
- 230 Lamp, lighting, other.
- 241 Night light.
- 242 Decorative lights, line voltage. Includes holiday lighting, Christmas lights.
- 243 Decorative or landscape lighting, low voltage.
- 244 Sign. Includes neon signs.
- 251 Fence, electric.
- 252 Traffic control device.
- 253 Lightning rod, arrester/grounding device.
- 261 Power cord, plug; detachable from appliance.
- 262 Power cord, plug; permanently attached to appliance.
- 263 Extension cord.
- 260 Cord, plug, other.
- 200 Electrical distribution, lighting, and power transfer, other.

Shop Tools and Industrial Equipment

- 311 Power saw.
- 312 Power lathe.
- 313 Power shaper, router, jointer, planer.
- 314 Power cutting tool.
- 315 Power drill, screwdriver.
- 316 Power sander, grinder, buffer, polisher.
- 317 Power hammer, jackhammer.
- 318 Power nail gun, stud driver, stapler.
- 310 Power tools, other.
- 321 Paint dipper.
- 322 Paint flow coating machine.
- 323 Paint mixing machine.
- 324 Paint sprayer.
- 325 Coating machine. Includes asphalt-saturating and rubber-spreading machines.
- 320 Painting tools, other.
- 331 Welding torch. Excludes cutting torches (332).
- 332 Cutting torch. Excludes welding torches (331).
- 333 Burners. Includes Bunsen burners, plumber furnaces, and blowtorches. Excludes weed burners (523).
- 334 Soldering equipment.
- 341 Air compressor.

- 342 Gas compressor.
- 343 Atomizing equipment. Excludes paint spraying equipment (324).
- 344 Pump. Excludes pumps integrated with other types of equipment.
- 345 Wet/Dry vacuum (shop vacuum).
- 346 Hoist, lift, crane.
- 347 Powered jacking equipment. Includes hydraulic rescue tools.
- 348 Drilling machinery or equipment. Includes water or gas drilling equipment.
- 340 Hydraulic equipment, other.
- 351 Heat-treating equipment.
- 352 Incinerator.
- 353 Industrial furnace, oven, kiln. Excludes ovens for cooking (646).
- 354 Tarpot, tar kettle.
- 355 Casting, molding, forging equipment.
- 356 Distilling equipment.
- 357 Digester, reactor.
- 358 Extractor, waste recovery machine. Includes solvent extractors such as used in dry-cleaning operations and garnetting equipment.
- 361 Conveyor. Excludes agricultural conveyors (513).
- 362 Power transfer equipment: ropes, cables, blocks, belts.
- 363 Power takeoff.
- 364 Powered valves.
- 365 Bearing or brake.
- 371 Picking, carding, weaving machine. Includes cotton gins.
- 372 Testing equipment.
- 373 Gas regulator. Includes propane, butane, LP, or natural gas regulators and flexible hose connectors to gas appliances.
- 374 Motor, separate. Includes bench motors. Excludes internal combustion motors (375).
- 375 Internal combustion engine (nonvehicular).
- 376 Printing press.
- 377 Car washing equipment.
- 300 Shop tools and industrial equipment, other.

Commercial and Medical Equipment

- 411 Dental, medical, or other powered bed or chair. Includes powered wheelchairs.
- 412 Dental equipment, other.
- 413 Dialysis equipment.
- 414 Medical imaging equipment. Includes MRI, CAT scan, and ultrasound.
- 415 Medical monitoring equipment.
- 416 Oxygen administration equipment.
- 417 Radiological equipment, x-ray, radiation therapy.
- 418 Sterilizer, medical.
- 419 Therapeutic equipment.
- 410 Medical equipment, other.
- 421 Transmitter.
- 422 Telephone switching gear, including PBX.
- 423 TV monitor array. Includes control panels with multiple TV monitors and security monitoring stations. Excludes single TV monitor configurations (753).
- 424 Studio-type TV camera. Includes professional studio television cameras. Excludes home camcorders and video equipment (756).
- 425 Studio-type sound recording/modulating equipment.
- 426 Radar equipment.
- 431 Amusement ride equipment.
- 432 Ski lift.
- 433 Elevator or lift.

- 434 Escalator.
- 441 Microfilm, microfiche viewing equipment.
- 442 Photo processing equipment. Includes microfilm processing equipment.
- 443 Vending machine.
- 444 Nonvideo arcade game. Includes pinball machines and the like. Excludes electronic video games (755).
- 445 Water fountain, water cooler.
- 446 Telescope. Includes radio telescopes.
- 451 Electron microscope.
- 450 Laboratory equipment, other.
- 400 Commercial and medical equipment, other.

Garden Tools and Agricultural Equipment

- 511 Combine, threshing machine.
- 512 Hay processing equipment.
- 513 Farm elevator or conveyor.
- 514 Silo loader, unloader, screw/sweep auger.
- 515 Feed grinder, mixer, blender.
- 516 Milking machine.
- 517 Pasteurizer. Includes milk pasteurizers.
- 518 Cream separator.
- 521 Sprayer, farm or garden.
- 522 Chain saw.
- 523 Weed burner.
- 524 Lawn mower.
- 525 Lawn, landscape trimmer, edger.
- 531 Lawn vacuum.
- 532 Leaf blower.
- 533 Mulcher, grinder, chipper. Includes leaf mulchers.
- 534 Snow blower, thrower.
- 535 Log splitter.
- 536 Post hole auger.
- 537 Post driver, pile driver.
- 538 Tiller, cultivator.
- 500 Garden tools and agricultural equipment, other.

Kitchen and Cooking Equipment

- 611 Blender, juicer, food processor, mixer.
- 612 Coffee grinder.
- 621 Can opener.
- 622 Knife.
- 623 Knife sharpener.
- 631 Coffee maker or teapot.
- 632 Food warmer, hot plate.
- 633 Kettle.
- 634 Popcorn popper.
- 635 Pressure cooker or canner.
- 636 Slow cooker.
- 637 Toaster, toaster oven, countertop broiler.
- 638 Waffle iron, griddle.
- 639 Wok, frying pan, skillet.
- 641 Bread-making machine.
- 642 Deep fryer.
- 643 Grill, hibachi, barbecue.

| | |
|-----|--|
| 644 | Microwave oven. |
| 645 | Oven, rotisserie. |
| 646 | Range with or without an oven or cooking surface. Includes counter-mounted stoves. |
| 647 | Steam table, warming drawer/table. |
| 651 | Dishwasher. |
| 652 | Freezer when separate from refrigerator. |
| 653 | Garbage disposer. |
| 654 | Grease hood/duct exhaust fan. |
| 655 | Ice maker (separate from refrigerator). |
| 656 | Refrigerator, refrigerator/freezer. |
| 600 | Kitchen and cooking equipment, other. |

Electronic and Other Electrical Equipment

| | |
|-----|--|
| 711 | Computer. Includes devices such as hard drives and modems installed inside the computer casing. Excludes external storage devices (712). |
| 712 | Computer storage device, external. Includes CD-ROM devices, tape drives, and disk drives. Excludes such devices when they are installed within a computer (711). |
| 713 | Computer modem, external. Includes digital, ISDN modems, cable modems, and modem racks. Excludes modems installed within a computer (711). |
| 714 | Computer monitor. Includes LCD or flat-screen monitors. |
| 715 | Computer printer. Includes multifunctional devices such as copier, fax, and scanner. |
| 716 | Computer projection device, LCD panel, projector. |
| 710 | Computer device, other. |
| 721 | Adding machine, calculator. |
| 722 | Telephone or answering machine. |
| 723 | Cash register. |
| 724 | Copier. Includes large standalone copiers. Excludes small copiers and multifunctional devices (715). |
| 725 | Fax machine. |
| 726 | Paper shredder. |
| 727 | Postage, shipping meter equipment. |
| 728 | Typewriter. |
| 720 | Office equipment, other. |
| 731 | Guitar. |
| 732 | Piano, organ. Includes player pianos. Excludes synthesizers and musical keyboards (733). |
| 733 | Musical synthesizer or keyboard. Excludes pianos, organs (732). |
| 730 | Musical instrument, other. |
| 741 | CD player (audio). Excludes computer CD, DVD players (712). |
| 742 | Laser disk player. Includes DVD players and recorders. |
| 743 | Radio. Excludes two-way radios (744). |
| 744 | Radio, two-way. |
| 745 | Record player, phonograph, turntable. |
| 747 | Speakers, audio; separate components. |
| 748 | Stereo equipment. Includes receivers, amplifiers, equalizers. Excludes speakers (747). |
| 749 | Tape recorder or player. |
| 740 | Sound recording or receiving equipment, other. |
| 751 | Cable converter box. |
| 752 | Projector: film, slide, overhead. |
| 753 | Television. |
| 754 | VCR or VCR-TV combination. |
| 755 | Video game, electronic. |
| 756 | Camcorder, video camera. |
| 757 | Photographic camera and equipment. Includes digital cameras. |
| 750 | Video equipment, other. |
| 700 | Electronic equipment, other. |

Personal and Household Equipment

| | |
|-----|--|
| 811 | Clothes dryer. |
| 812 | Trash compactor. |
| 813 | Washer/Dryer combination (within one frame). |
| 814 | Washing machine, clothes. |
| 821 | Hot tub, whirlpool, spa. |
| 822 | Swimming pool equipment. |
| 830 | Floor care equipment, other. |
| 831 | Broom, electric. |
| 832 | Carpet cleaning equipment. Includes rug shampoos. |
| 833 | Floor buffer, waxer, cleaner. |
| 834 | Vacuum cleaner. |
| 841 | Comb, hair brush. |
| 842 | Curling iron. |
| 843 | Electrolysis equipment. |
| 844 | Hair curler warmer. |
| 845 | Hair dryer. |
| 846 | Makeup mirror, lighted. |
| 847 | Razor, shaver (electric). |
| 848 | Suntan equipment, sunlamp. |
| 849 | Toothbrush (electric). |
| 850 | Portable appliance designed to produce heat, other. |
| 851 | Baby bottle warmer. |
| 852 | Blanket, electric. |
| 853 | Heating pad. |
| 854 | Clothes steamer. |
| 855 | Clothes iron. |
| 861 | Automatic door opener. Excludes garage door openers (863). |
| 862 | Burglar alarm. |
| 863 | Garage door opener. |
| 864 | Gas detector. |
| 865 | Intercom. |
| 866 | Smoke or heat detector, fire alarm. Includes control equipment. |
| 868 | Thermostat. |
| 871 | Ashtray. |
| 872 | Charcoal lighter, utility lighter. |
| 873 | Cigarette lighter, pipe lighter. |
| 874 | Fire-extinguishing equipment. Includes electronic controls. |
| 875 | Insect trap. Includes bug zappers. |
| 876 | Timer. |
| 881 | Model vehicles. Includes model airplanes, boats, rockets, and powered vehicles used for hobby and recreational purposes. |
| 882 | Toy, powered. |
| 883 | Woodburning kit. |
| 891 | Clock. |
| 892 | Gun. |
| 893 | Jewelry-cleaning machine. |
| 894 | Scissors. |
| 895 | Sewing machine. |
| 896 | Shoe polisher. |
| 897 | Sterilizer, non-medical. |
| 800 | Personal and household equipment, other. |

Other Equipment Involved in Ignition

| | |
|-----|--|
| 000 | Equipment involved in ignition, other. |
| NNN | None. |
| UUU | Undetermined. |

SECTION H**H Weather Information**

Descriptive information regarding weather conditions that existed at the time and location of the fire origin helps identify conditions that may have contributed to the fire cause or spread.

NFDRS Weather Station ID*Definition*

Space is provided to record the six-character identification number for the National Fire Danger Rating System (NFDRS) Weather Station that monitors weather conditions at the location of fire origin.

Purpose

Researchers can obtain specific weather data for the time and location of the fire origin. Specific weather data permits analysis of those conditions that may have contributed to the fire cause or spread.

Entry

Enter the six-digit NFDRS Weather Station ID number. See the completed example at the end of Section H.

- ☛ If the descriptive weather information is not provided, it will be necessary for the local fire department to access the NFDRS database to perform later analysis of wildland fires using weather data. Because this may not always be feasible, fire departments should always complete this section themselves whenever possible.

Weather Type*Definition*

The general description of weather conditions at the time and location of fire origin.

Purpose

A description of weather conditions at the time and location of fire origin helps to understand the conditions that may have contributed to the fire cause or spread.

Entry

Enter the two-digit code and description for the weather conditions at the time and location of fire origin. See the completed example at the end of Section H.

WEATHER TYPE CODES

| | |
|----|--|
| 10 | Clear (less than 1/10 cloud cover). |
| 11 | Scattered clouds (1/10 to 5/10 cloud cover). |
| 12 | Broken clouds (6/10 to 9/10 cloud cover). |
| 13 | Overcast (more than 9/10 cloud cover). |
| 14 | Foggy. |
| 15 | Drizzle or mist. |
| 16 | Rain. |
| 17 | Snow or sleet. |
| 18 | Shower. |
| 19 | Thunderstorm in progress. |
| 00 | Weather type, other. |

Wind Direction**Definition**

The direction that the wind was blowing from at ground level. For instance, a north wind blows out of the north and would push a fire to the south.

Purpose

This information helps determine fire causes, rate of spread, and direction of a fire.

Entry

Enter the code and description for the direction that the ground-level wind is coming from. If Wind Speed (next) is zero, enter “N” for Wind Direction. See the completed example at the end of Section H.

WIND DIRECTION CODES

| | |
|---|-----------------|
| 1 | North. |
| 2 | Northeast. |
| 3 | East. |
| 4 | Southeast. |
| 5 | South. |
| 6 | Southwest. |
| 7 | West. |
| 8 | Northwest. |
| 9 | Shifting winds. |
| N | None/Calm. |
| U | Undetermined. |

Wind Speed**Definition**

The speed of the wind at the fire origin upon arrival of the fire suppression forces.

Purpose

Wind speed is possibly the most important factor affecting the rate of fire spread at an incident. This information is used to understand and predict fire behavior as well as to evaluate fire protection strategies.

Entry

Enter the average wind speed, to the nearest mile per hour, at the origin of the fire. Wind speed may be measured using an anemometer. Calm conditions are recorded as “0.” See the completed example at the end of Section H.

Temperature and Relative Humidity

Definitions

Air temperature is measured in degrees Fahrenheit at the location of the fire origin when the fire started. Relative humidity is the ratio expressed as a percent of the amount of water vapor to the greatest amount possible at the same temperature.

Purpose

Temperature and humidity information is used to assess the potential for ignition in various weather conditions and to understand problems associated with suppressing fires in different ambient temperatures and humidity levels.

Entries

Enter the actual or estimated air temperature in degrees Fahrenheit at the time the incident started. If the temperature is below zero, check or mark the box that indicates a negative temperature.

Enter the percent humidity at the time the incident started. See the completed example at the end of Section H.

Fuel Moisture

Definition

The 10-hour reading of the moisture content of a fuel stick taken in the general area of fire origin. Fuel moisture is expressed as a percentage of the weight (generally ranging from 0 to 25 percent).

Purpose

Information about fuel moisture is used in fire modeling to assess the potential for ignition and rate of spread for different fuels under various weather conditions.

Entry

Enter the fuel moisture percentage level. See the completed example at the end of Section H.

Fire Danger Rating

Definition

Fire danger rating refers to one method of describing the wildfire threat in a particular area, based on the NFDRS. It is derived from both constant and variable fire danger factors that affect the ignition, spread, and difficulty of control of fires and the damage they cause. Factors considered when estimating the fire danger are temperature, relative humidity, wind speed, fuel type, and fuel moisture.

Purpose

This information is used in fire prevention activities to determine when fires are most likely to occur and their severity. Burning bans and park or forest closures or restrictions may be invoked based on the fire danger rating. It is also useful in pre-suppression planning to determine staffing levels and critical initial attack times.

Entry

Enter the code and description that best describes the fire danger.

FIRE DANGER RATING CODES

- 1 Low fire danger.
- 2 Moderate fire danger.
- 3 High fire danger.
- 4 Very high fire danger.
- 5 Extreme fire danger.
- U Undetermined.

Example

NFDRS number: BLM's Storm King Station, ID number 199065.

The fire started during a thunderstorm (19).

The winds came from the northwest (8).

The Weather Service reported that the local weather station registered winds of 15–20 miles per hour with occasional gusts up to 25 miles per hour.

95°F, humidity at 20 percent, fuel moisture level at 10 percent.

The danger rating in the fire area was moderate (2).

| | | |
|---|-----------------|--|
| H Weather Information | | |
| 1 9 9 0 6 5 NFDRS Weather Station ID | | |
| 1 9 | Thunderstorm | 8 NW |
| Weather Type | | Wind Direction |
| 1 5 | 9 5 °F | <input type="checkbox"/> Check if negative |
| Wind Speed (mph) | Air Temperature | |
| 2 0 % | 1 0 % | 2 Moderate |
| Relative Humidity | Fuel Moisture | Fire Danger Rating |

SECTION I

This section collects information on the types of properties threatened or destroyed in a wildland fire and the magnitude of the loss.

I Number of Buildings Ignited

Definition

The number of buildings, if any, that were ignited by the wildland fire.

Purpose

This information provides important information to resource planners and policymakers developing zoning ordinances and regulations regarding wildland and rural areas. This information may also help direct future training and incident management efforts.

Entry

Enter the number of buildings ignited by the wildland fire. If no buildings were ignited, check or mark the None box.

- ☛ A separate exposure report should be filled out for each building ignited.

Example

One building was ignited in a wildland fire:

| Number of Buildings Ignited | |
|--|-------------------------------|
| I1 | <input type="checkbox"/> None |
| Number of buildings that were ignited in Wildland fire | |

I² Number of Buildings Threatened

Definition

The number of buildings, if any, that were threatened, but not ignited by the wildland fire. This field implies that these buildings were “saved” by the efforts of fire suppression resources.

- ☛ This field is completed only when the fire management tactics employed were for the specific purpose of protecting threatened structures.

Purpose

The number of buildings threatened provides important information to resource planners and policymakers developing zoning ordinances and regulations regarding wildland and rural areas. This information may also help direct future training and incident management efforts.

Entry

Enter the number of buildings threatened but not ignited by the wildland fire. Check or mark the None box if no buildings were threatened.

Example

Two farm buildings were threatened in the wildland fire:

| Number of Buildings Threatened | |
|---|-------------------------------|
| I2 | <input type="checkbox"/> None |
| Number of buildings that were threatened by Wildland fire but were not involved | |

I³ Total Acres Burned ☆

Definition

This data element captures the total acres burned by a wildland fire.

Purpose

Recording the estimated number of acres burned indicates the magnitude of each fire and of the wildland fire problem overall. This can be used to evaluate progress in wildland fire prevention. This information can also help determine the magnitude of resources that should be devoted to fire protection and the cost effectiveness of various programs. An estimate of the number of acres burned represents a vital component of the overall fire loss picture.

Entry

Enter the total number of acres burned. If less than one acre was burned, the decimal point field should be used to denote tenths of an acre.

- ☛ This entry should be the most accurate estimate of acres burned that is practical to obtain (one acre equals 43,560 square feet). Estimates based on the use of accurately scaled maps, dot grids, planimeters, or other accurate measuring methods are preferred.

Example

A fire destroys 1,671 acres:

| I ³ Total Acres Burned ☆ | |
|-------------------------------------|-----------------------|
| _ _ | _ _ 1 , 6 7 1 • _ |

I⁴ Primary Crops Burned

Definition

This data element identifies up to three types of crops that burned.

Purpose

Information about what type of crops burned is useful as a measure of loss and in tracking trends and patterns in wildland fires as well as planning prevention strategies.

Entry

Enter up to three primary crops that burned in the fire. Enter the crop with the most burned acres first. If no crops were burned, leave this block blank.

Example

The fire burned 100 acres of wheat and 150 acres of corn:

| 4 Primary Crops Burned | |
|---|--|
| Identify up to 3 crops if any crops were burned | |
| Corn | |
| Crop 1 | |
| Wheat | |
| Crop 2 | |
| | |
| Crop 3 | |

SECTION J

J Property Management

Definition

The name of the principle entity having responsibility for the maintenance or control of the property where the fire originated. It also allows for the reporting of the percent of the total acres burned for each type of ownership involved.

Purpose

The number of acres burned by property ownership is of significant value to local fire departments as well as to State and Federal wildland agencies. It provides a means to determine the frequency and impact of fire on property managers, especially major holders of land, such as ranchers, lumber and paper companies, agricultural producers, and Federal and State governments. This information also can help target fire protection programs at entities having the greatest risk or loss potential.

Entry

Indicate the percent of the total acres burned for each type of ownership involved, then check or mark the box that best describes the principle entity responsible for the property where the fire originated. If responsibility cannot be determined or is unknown, check or mark the Undetermined box.

- ☛ Check or mark only one owner/management entity.
- ☛ If the Federal (6) box was checked or marked, enter the Federal Agency Code.

Example

The fire started on a privately owned and operated farm (private tax paying) (1) and spread to Montana's Big Horn Canyon (Federal Agency Code MTBIP). Thirty percent of the total acres burned was on the farm and 70 percent was owned by the Federal government:

J Property Management

Indicate the percent of the total acres burned for *each* ownership type then check the ONE box to identify the property ownership at the origin of the fire. If the ownership at origin is Federal, enter the Federal Agency Code.

| Ownership | % Total Acres Burned |
|--|----------------------|
| ↓ | ↓ |
| U <input type="checkbox"/> Undetermined | _____ % |
| Private | |
| 1 <input checked="" type="checkbox"/> Tax paying | _ 3 _ 0 % |
| 2 <input type="checkbox"/> Non-tax paying | _____ % |
| Public | |
| 3 <input type="checkbox"/> City, town, village, local | _____ % |
| 4 <input type="checkbox"/> County or parish | _____ % |
| 5 <input type="checkbox"/> State or province | _____ % |
| 6 <input checked="" type="checkbox"/> Federal <u>M, T, B, I, P</u> | _ 7 _ 0 % |
| Federal Agency Code | |
| 7 <input type="checkbox"/> Foreign | _____ % |
| 8 <input type="checkbox"/> Military | _____ % |
| 0 <input type="checkbox"/> Other | _____ % |

PROPERTY MANAGEMENT CODES

Private

- 1 Tax paying.
- 2 Non-tax paying.

Public

- 3 City, town, village, or other locality.
- 4 County or parish.
- 5 State or province.
- 6 Federal.
- 7 Foreign.
- 8 Military.
- 0 Other.
- U Undetermined.

| WILDLAND FEDERAL AGENCY CODES - (WILDLAND NIFC STANDARD CODESET) | | | |
|---|--|-------|--|
| DEPARTMENT OF AGRICULTURE, FOREST SERVICE | | | |
| PAALF | Allegheny National Forest | UTFIF | Fishlake National Forest |
| CAANF | Angeles National Forest | MTFNF | Flathead National Forest |
| AZASF | Apache-Sitgreaves National Forest | SCFMF | Francis Marion & Sumter National Forests |
| COARF | Arapaho & Roosevelt National Forests/ Pawnee National Grassland | ORFRF | Fremont National Forest |
| UTASF | Ashley National Forest | MTGNF | Gallatin National Forest |
| MTBDF | Beaverhead/Deerlodge National Forest | VAVAF | George Washington & Jefferson National Forests |
| WYBHF | Bighorn National Forest | WAGPF | Gifford Pinchot National Forest |
| MTBRF | Bitterroot National Forest | NMGNF | Gila National Forest |
| SDBKF | Black Hills National Forest | COGMF | Grand Mesa/Uncompahgre/Gunnison National Forest |
| IDBOF | Boise National Forest | VTGMF | Green Mountain National Forest |
| WYBTF | Bridger-Teton National Forest | MTHNF | Helena National Forest |
| PRCAF | Caribbean National Forest | MIHIF | Hiawatha National Forest |
| IDCTF | Caribou-Targhee National Forest | INHOF | Hoosier National Forest |
| NMCAF | Carson National Forest | NVHTF | Humboldt-Toiyabe National Forest |
| NMCHP | Chaco Culture National Monument | MIHMF | Huron-Manistee National Forest |
| GACHF | Chattahoochee-Oconee National Forest | IDIPF | Idaho Panhandle National Forest |
| WICNF | Chequamegon-Nicolet National Forest | CAINF | Inyo National Forest |
| TNCNF | Cherokee National Forest | AZKNF | Kaibab National Forest |
| MNCPF | Chippewa National Forest | LAKIF | Kisatchie National Forest |
| AKCGF | Chugach National Forest | CAKNF | Klamath National Forest |
| NMCIF | Cibola National Forest | MTKNF | Kootenai National Forest |
| IDCWF | Clearwater National Forest | KYLBF | Land Between the Lakes National Recreation Area |
| CACNF | Cleveland National Forest | CALNF | Lassen National Forest |
| AZCOF | Coconino National Forest | MTLCF | Lewis & Clark National Forest |
| ORCGF | Columbia River Gorge National Scenic Area | NMLNF | Lincoln National Forest |
| WACOF | Colville National Forest | MTLNF | Lolo National Forest |
| AZCNF | Coronado National Forest | CALPF | Los Padres National Forest |
| MTCNF | Custer National Forest | ORMAF | Malheur National Forest |
| NDDPF | Dakota Prairie National Grasslands | UTMLF | Manti-Lasal National Forest |
| KYDBF | Daniel Boone National Forest | MOMTF | Mark Twain National Forest |
| ORDEF | Deschutes National Forest | WYMBF | Medicine Bow National Forest |
| UTDIF | Dixie National Forest | CAMNF | Mendocino National Forest |
| CAENF | Eldorado National Forest | ILMPF | Midewin National Tall Grass Prairie |

DEPARTMENT OF AGRICULTURE, FOREST SERVICE (CONT'D)

| | | | |
|-------|--|-------|---------------------------------|
| CAMDF | Modoc National Forest | COSJF | San Juan National Forest |
| WVMOF | Monongahela National Forest | NMSNF | Santa Fe National Forest |
| WAMSF | Mt. Baker-Snoqualmie National Forest | SCSRF | Savannah River Forest |
| ORMHF | Mt. Hood National Forest | IDSTF | Sawtooth National Forest |
| TXTXF | National Forests and Grasslands In Texas | CASQF | Sequoia National Forest |
| ALALF | National Forests in Alabama | CASHF | Shasta-Trinity National Forest |
| FLNF | National Forests in Florida | ILSHF | Shawnee National Forest |
| MSMNF | National Forests in Mississippi | WYSHF | Shoshone National Forest |
| NCNCF | National Forests in North Carolina | CASNF | Sierra National Forest |
| NENBF | Nebraska National Forest | ORSIF | Siskiyou National Forest |
| IDNPF | Nez Perce National Forest | ORSUF | Siuslaw National Forest |
| OROCF | Ochoco National Forest | CASRF | Six Rivers National Forest |
| WAOWF | Okanogan/Wenatchee National Forest | CASTF | Stanislaus National Forest |
| WAOLF | Olympic National Forest | MNSUF | Superior National Forest |
| MIOTF | Ottawa National Forest | CATNF | Tahoe National Forest |
| AROUF | Ouachita National Forest | AKTNF | Tongass National Forest |
| AROZF | Ozark & St. Francis National Forests | AZTNF | Tonto National Forest |
| IDPAF | Payette National Forest | UTUIF | Uinta National Forest |
| COPSF | Pike & San Isabel National Forest | ORUMF | Umatilla National Forest |
| CAPNF | Plumas National Forest | ORUPF | Umpqua National Forest |
| AZPNF | Prescott National Forest | ORWWF | Wallowa-Whitman National Forest |
| CORGF | Rio Grande National Forest | UTWCF | Wasatch-Cache National Forest |
| ORRRF | Rogue River National Forest | OHWAF | Wayne National Forest |
| CORTF | Routt National Forest | NHWMF | White Mountain National Forest |
| IDSCF | Salmon-Challis National Forest | COWRF | White River National Forest |
| CABDF | San Bernardino National Forest | ORWIF | Willamette National Forest |
| | | ORWNF | Winema National Forest |

DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE

| | | | |
|-------|-----------------------------|-------|-----------------------------|
| MTBLW | Billings Weather Service | MTGFW | Great Falls Weather Service |
| NDBMW | Bismark Weather Service | MTMSW | Missoula Weather Service |
| MTGGW | Glasgow Weather Service | CANWS | National Weather Service |
| NDGFW | Grand Forks Weather Service | | |

DEPARTMENT OF DEFENSE

| | | | |
|-------|--------------------------|-------|----------------------------------|
| MDABQ | Aberdeen Proving Grounds | NCCLQ | Camp Lejeune |
| KYBGQ | Blue Grass Army Depot | CAMCP | Camp Pendleton Marine Corps Base |

DEPARTMENT OF DEFENSE (CONT'D)

| | | | |
|-------|-----------------------------------|-------|-------------------------------------|
| NCCPQ | Cherry Point | CAFHL | Hunter Liggett Military Reservation |
| FLEAQ | Eglin Air Force Base | NVNAF | Nellis Air Force Base |
| NVFNA | Fallon Naval Air Station | NVNTE | Nevada Test Site |
| NCFBQ | Fort Bragg | NHNBQ | New Boston Air Force Station |
| KYFCQ | Fort Campbell | SCSHQ | Shaw Air Force Base |
| NYFDQ | Fort Drum Military Reservation | CASAD | Sierra Army Depot |
| SCFJQ | Fort Jackson Army Training Center | CAAFV | Vandenburg Air Force Base |
| KYFKQ | Fort Knox | NYWPQ | West Point Military Reservation |
| GAFSQ | Fort Stewart | CTWEQ | Westover Air Force Base |

DEPARTMENT OF ENERGY

WAHNE Hanford Site

DEPARTMENT OF INTERIOR

| | | | |
|-------|----------------------------|-------|----------------------------|
| OKACA | Alabama-Coushatta Agency | NDFTA | Fort Totten Agency |
| AKANA | Anchorage Agency | AZFYA | Fort Yuma Agency |
| AKBEA | Bethel Agency | WIGLA | Great Lakes Agency |
| MTBFA | Blackfeet Agency | CAHIA | Hoopa Agency |
| CACCA | Central Calif Agency | AZHOA | Hopi Agency |
| SDCRA | Cheyenne River Reservation | KSHTA | Horton Reservation |
| OKCHA | Chickasaw Agency | NMJIA | Jicarilla Agency |
| MSCHA | Choctaw Agency | NMLAA | Laguna Agency |
| AKCIA | Chugachmiut Agency | SDLBA | Lower Brule Reservation |
| AZCRA | Colorado River Agency | WIMEA | Menominee Agency |
| WACOA | Colville Agency | NMMEA | Mescalero Agency |
| MTCRA | Crow Agency | AKMEA | Metlakatla Agency |
| SDCCA | Crow Creek Reservation | OKMIA | Miami Agency |
| NCECA | Eastern Cherokee Agency | MIMIA | Michigan Agency |
| NVENA | Eastern Nevada Agency | MNMNA | Minnesota Agency |
| AKFAA | Fairbanks Agency | AKNOA | Nome Agency |
| MTFHA | Flathead Agency | IDNIA | North Idaho Agency |
| AZFTA | Fort Apache Agency | CANCA | Northern California Agency |
| MTFBA | Fort Belknap Agency | MTNCA | Northern Cheyenne Agency |
| NDFBA | Fort Berthold Agency | NMNPA | Northern Pueblos Agency |
| CAFBA | Fort Bidwell Agency | WAOPA | Olympic Peninsula Agency |
| IDFHA | Fort Hall Agency | OKOSA | Osage Agency |
| MTFPA | Fort Peck Agency | AZPPA | Papago Agency |

DEPARTMENT OF INTERIOR (CONT'D)

| | | | |
|-------|-------------------------------|-------|--------------------------------|
| MEPAA | Passamaquoddy Agency | COSUA | Southern Ute Reservation |
| OKPAA | Pawnee Agency | WASPA | Spokane Agency |
| MEPEA | Penobscot Agency | NDSRA | Standing Rock Reservation |
| AZPMA | Pima Agency | CASYC | Sycuan Agency |
| SDPRA | Pine Ridge Reservation | NMTAA | Taos NPA Agency |
| WAPSA | Puget Sound Agency | AZTCA | Truxton Canon Agency |
| NMRNA | Ramah Navajo Agency | CATIA | Tule River Agency |
| MNRLA | Red Lake Agency | NDTMA | Turtle Mountain Agency |
| MTRBA | Rocky Boys Agency | UTUOA | Uintah and Ouray Agency |
| MTRNA | Ronan Agency | ORUMA | Umatilla Agency |
| SDRBA | Rosebud Reservation | COUMA | Ute Mountain Reservation |
| IASFA | Sac & Fox Agency | ORWSA | Warm Springs Agency |
| AZSCA | San Carlos Agency | NVWNA | Western Nevada Agency |
| FLSEA | Seminole Agency | OKWEA | Wewoka Agency |
| ORSIA | Siletz Agency | UTUMA | White Mesa/Ute Mountain Agency |
| SDSWA | Sisseton–Wahpeton Reservation | WYWRA | Wind River Reservation |
| CASCA | Southern California Agency | NEWBA | Winnebago Reservation |
| UTPIA | Southern Piute Agency | WAYAA | Yakima Agency |
| SCAAA | Southern Plains Agency | SDYAA | Yankton Reservation |
| OKAAA | Southern Plains Agency | NMZUA | Zuni Agency |
| NMSPA | Southern Pueblos Agency | | |

DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT

| | | | |
|-------|--------------------------------|-------|------------------------------|
| CABBD | Bakersfield District | CACDD | California Desert District |
| NVBAC | Battle Mountain Airtanker Base | CANOD | Northern California District |

DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION

| | | | |
|--------|---|--------|---|
| NDAWR | Arrowwood National Wildlife Refuge | MTLMR | Lee Metcalf National Wildlife Refuge |
| NDADR | Audubon National Wildlife Refuge | NDLLR | Long Lake National Wildlife Refuge |
| MTBLR | Benton Lake National Wildlife Refuge | NDLWR | Lostwood Lake National Wildlife Refuge |
| MTBWR | Bowdoin National Wildlife Refuge | MTMLR | Medicine Lake National Wildlife Refuge |
| MTCMR | Charles M. Russell National Wildlife Refuge | CABRL | Mid-Pacific Region |
| NDCLR | Chase Lake National Wildlife Refuge | MTNBR | National Bison Range |
| NDCRR | Crosby Wetland Management District | MTRLR | Red Rock Lakes National Wildlife Refuge |
| NDDLRL | Des Lacs National Wildlife Refuge | NDSLRL | Spirit Lake Wetland Management District |
| NDJCR | J. Clark Salyer National Wildlife Refuge | NDSHR | Sullys Hill National Game Preserve |
| IDKOR | Kootenai National Wildlife Refuge | NDTWR | Tewaukon National Wildlife Refuge |
| NDKMR | Kulm Wetland Management District | NDUSR | Upper Souris National Wildlife Refuge |
| NDLIR | Lake Ilo National Wildlife Refuge | NDVCR | Valley City Wetland Management District |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE | | | |
|--|---|-------|--|
| SCACR | Ace Basin National Wildlife Refuge | MNBGR | Big Stone National Wildlife Refuge |
| MNAGR | Agassiz National Wildlife Refuge | AZBWR | Bill Williams National Wildlife Refuge |
| COALR | Alamosa National Wildlife Refuge | NMBTR | Bitter Lake National Wildlife Refuge |
| AKAMR | Alaska Maritime National Wildlife Refuge | GABLR | Blackbeard Island National Wildlife Refuge |
| AKAPR | Alaska Peninsula National Wildlife Refuge | ALBWR | Blowing Wind Cave National Wildlife Refuge |
| NCALR | Alligator River National Wildlife Refuge | DEBHR | Bombay Hook National Wildlife Refuge |
| NVAIR | Anaho Island National Wildlife Refuge | ALBOR | Bon Secour National Wildlife Refuge |
| TXAHR | Anahuac National Wildlife Refuge | GABSR | Bond Swamp National Wildlife Refuge |
| ORAKR | Ankeny National Wildlife Refuge | NMBDR | Bosque del Apache National Wildlife Refuge |
| CAADR | Antioch Dunes National Wildlife Refuge | LABCR | Bouge Chitto National Wildlife Refuge |
| TXARR | Aransas National Wildlife Refuge | TXBRR | Brazoria National Wildlife Refuge |
| COARR | Arapaho National Wildlife Refuge | LABTR | Breton National Wildlife Refuge |
| FLACR | Archie Carr National Wildlife Refuge | COBPR | Brown's Park National Wildlife Refuge |
| AKARR | Arctic National Wildlife Refuge | VIBIR | Buck Island National Wildlife Refuge |
| MEARR | Arrostook National Wildlife Refuge | AZBAR | Buenos Aires National Wildlife Refuge |
| FLLXR | Arthur R. Marshall/Loxahatchee National Wildlife Refuge | TXBFR | Buffalo Lake National Wildlife Refuge |
| NVAMR | Ash Meadows National Wildlife Refuge | AZCPR | Cabeza National Wildlife Refuge |
| LAATR | Atchafalaya National Wildlife Refuge | PRCBR | Cabo Rojo National Wildlife Refuge |
| TXATR | Attwater Prairie Chicken National Wildlife Refuge | ARCRR | Cache River National Wildlife Refuge |
| COBAR | Baca National Wildlife Refuge | TXCLR | Caddo Lake National Wildlife Refuge |
| VABBR | Back Bay National Wildlife Refuge | FLCAR | Caloosahatchee National Wildlife Refuge |
| TXBAR | Balcones Canyon National Wildlife Refuge | IDCSR | Camas National Wildlife Refuge |
| ORBMR | Bandon Marsh National Wildlife Refuge | LACPR | Cameron Prairie National Wildlife Refuge |
| GABNR | Banks Lake National Wildlife Refuge | WVCVR | Canaan Valley National Wildlife Refuge |
| ORBKR | Baskett Slough National Wildlife Refuge | NJCMR | Cape May National Wildlife Refuge |
| LABAR | Bayou Cocodrie National Wildlife Refuge | ORCPR | Cape Meares National Wildlife Refuge |
| LABSR | Bayou Sauvage National Wildlife Refuge | SCCMR | Cape Romain National Wildlife Refuge |
| IDBLR | Bear Lake National Wildlife Refuge | SCCRR | Carolina Sandhills National Wildlife Refuge |
| UTBBR | Bear River Migratory Bird Refuge | CACAR | Castle Rock National Wildlife Refuge |
| ORBVR | Bear Valley National Wildlife Refuge | LACTR | Catahoula National Wildlife Refuge |
| AKBCR | Becharof National Wildlife Refuge | NCCDR | Cedar Island National Wildlife Refuge |
| XBBR | Big Boggy National Wildlife Refuge | FLCKR | Cedar Keys National Wildlife Refuge |
| LABBR | Big Branch Marsh National Wildlife Refuge | FLCHR | Chassahowitzka National Wildlife Refuge |
| ARBGR | Big Lake National Wildlife Refuge | ILCTR | Chautauqua National Wildlife Refuge |
| MOBMR | Big Muddy National Wildlife Refuge | MDBWR | Chesapeake Marshlands National Wildlife Refuge Complex |
| INBOR | Big Oaks National Wildlife Refuge | TNCHR | Chicksaw National Wildlife Refuge |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE (CONT'D) | | | |
|--|---|-------|--|
| VACHR | Chincoteague National Wildlife Refuge | MAEMR | Eastern Massachusetts National Wildlife Refuge Complex |
| ALCHR | Choctaw National Wildlife Refuge | MDENR | Eastern Neck National Wildlife Refuge |
| CACBR | Cibola National Wildlife Refuge | VAESR | Eastern Shore of Virginia |
| AZCBR | Cibola National Wildlife Refuge | VAEVR | Eastern Virginia Rivers Refuges |
| KYCLR | Clark's River National Wildlife Refuge | NJERR | Edwin B. Forsythe National Wildlife Refuge |
| CACLR | Clear Lake National Wildlife Refuge | FLEGR | Egmont Key National Wildlife Refuge |
| ORCOR | Cold Springs National Wildlife Refuge | PAERR | Erie National Wildlife Refuge |
| WACBR | Columbia National Wildlife Refuge | ALEFR | Eufaula National Wildlife Refuge |
| TXCOR | Columbia Lakes National Wildlife Refuge | NVFLR | Fallon National Wildlife Refuge |
| CACUR | Colusa National Wildlife Refuge | ARFSR | Felsenthal National Wildlife Refuge |
| WACNR | Conboy Lake National Wildlife Refuge | MNFFR | Fergus Falls Wetland Management District |
| WACOR | Copalis National Wildlife Refuge | ALFER | Fern Cave National Wildlife Refuge |
| ILCOR | Crab Orchard National Wildlife Refuge | UTFSR | Fish Springs National Wildlife Refuge |
| MNCMR | Crane Meadows National Wildlife Refuge | WAFLR | Flattery Rocks National Wildlife Refuge |
| NECLR | Crescent Lake National Wildlife Refuge | KSFLR | Flint Hills National Wildlife Refuge |
| FLCLR | Crocodile Lake National Wildlife Refuge | FLFPR | Florida Panther National Wildlife Refuge |
| TNCRR | Cross Creeks National Wildlife Refuge | NEFNR | Fort Niobrara |
| FLCRR | Crystal River National Wildlife Refuge | WIGNR | Genoa National Fish Hatchery |
| PRCUR | Culebra National Wildlife Refuge | MSGBR | Grand Bay National Wildlife Refuge |
| NCCRR | Currituck National Wildlife Refuge | LAGCR | Grand Cote National Wildlife Refuge |
| ILCYR | Cypress Creek National Wildlife Refuge | WAGHR | Gray's Harbor National Wildlife Refuge |
| MSDAR | Dahomey National Wildlife Refuge | IDGLR | Grays Lake National Wildlife Refuge |
| LADRR | D'Arbonne National Wildlife Refuge | NHGBR | Great Bay National Wildlife Refuge |
| IDDFR | Deer Flat National Wildlife Refuge | VAGDR | Great Dismal Swamp National Wildlife Refuge |
| CADLR | Delevan National Wildlife Refuge | MOGRR | Great Rivers National Wildlife Refuge |
| LADLR | Delta National Wildlife Refuge | NJGSR | Great Swamp National Wildlife Refuge |
| PRDER | Desecheo National Wildlife Refuge | FLGWR | Great White Heron National Wildlife Refuge |
| NVDSR | Desert National Wildlife Refuge | VIGCR | Green Cay National Wildlife Refuge |
| IADSR | DeSoto National Wildlife Refuge | NMGRR | Gruha National Wildlife Refuge |
| MNDLR | Detroit Lakes Wetland Management District | TXHGR | Hagerman National Wildlife Refuge |
| MIDRR | Detroit River International Wildlife Refuge | IDHFR | Hagerman National Fish Hatchery |
| NDDVR | Devil's Lake Wetland Management District | HIHAR | Hakalau Forest National Wildlife Refuge |
| OKDXR | Dexter National Fish Hatchery | MNHSR | Hamden Slough National Wildlife Refuge |
| NMDXR | Dexter National Fish Hatchery & Technology Center | HIHNR | Hanalei National Wildlife Refuge |
| IADAR | Driftless National Wildlife Refuge | LAHAR | Handy Brake National Wildlife Refuge |
| WADNR | Dungeness National Wildlife Refuge | WAHFR | Hanford Reach National Monument |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE | | | |
|--|---|-------|---|
| MIHAR | Harbor Island National Wildlife Refuge | HIKIR | Kilauea Point National Wildlife Refuge |
| GAHSR | Harris Neck National Wildlife Refuge | MIKWR | Kirtlands Warbler National Wildlife Refuge |
| ORHMR | Hart Mountain National Antelope Refuge | KSKIR | Kirwin National Wildlife Refuge |
| TNHTR | Hatchie National Wildlife Refuge | CAKLR | Klamath Basin National Wildlife Refuge |
| AZHVR | Havasu National Wildlife Refuge | ORKLR | Klamath Forest National Wildlife Refuge |
| HIPCR | Hawaii Pacific Islands National Wildlife Refuge Complex | AKKDR | Kodiak National Wildlife Refuge |
| HIHIR | Hawaiian Islands National Wildlife Refuge | AZKGR | Kofa National Wildlife Refuge |
| MIHFR | Hiawatha Forest National Fish Hatchery | AKKUR | Koyukuk National Wildlife Refuge |
| MSHLR | Hillside National Wildlife Refuge | LALCR | Lacassine National Wildlife Refuge |
| FLHBR | Hobe Sound National Wildlife Refuge | SDLCR | Lacreek National Wildlife Refuge |
| ARHLR | Holla Bend National Wildlife Refuge | WILCR | LaCrosse District, Upper Mississippi National Wildlife Refuge |
| WIHRR | Horicon National Wildlife Refuge | TXLGR | Laguna Atascosa National Wildlife Refuge |
| HIHLR | Huleia National Wildlife Refuge | PRLCR | Laguna Cartagena National Wildlife Refuge |
| CAHBR | Humboldt Bay | SDLAR | Lake Andes National Wildlife Refuge |
| MIHUR | Huron National Wildlife Refuge | TNLIR | Lake Isom National Wildlife Refuge |
| SDHUR | Huron Wetland Management District | LALOR | Lake Ophelia National Wildlife Refuge |
| ILILR | Illinois River National Wildlife Refuge | NHUBR | Lake Umbagog National Wildlife Refuge |
| WIIRR | Illinois River National Wildlife Refuge | FLLRR | Lake Wales Ridge National Wildlife Refuge |
| AZIMR | Imperial National Wildlife Refuge | FLLWR | Lake Woodruff National Wildlife Refuge |
| AKINR | Innoko National Wildlife Refuge | NMLVR | Las Vegas National Wildlife Refuge |
| NYIRR | Iroquois National Wildlife Refuge | WALWR | Leavenworth National Fish Hatchery |
| FLISR | Island Bay National Wildlife Refuge | WILPR | Leopold Wetland Management |
| AKIZR | Izembek National Wildlife Refuge | ORLAR | Lewis & Clark National Wildlife Refuge |
| FLJNR | J.N. "Ding" Darling National Wildlife Refuge | MNLFR | Litchfield Wetland Management District |
| HIJCR | James C. Campbell National Wildlife Refuge | WALPR | Little Pend Oreille National Wildlife Refuge |
| VAJRR | James River National Wildlife Refuge | OKLRR | Little River National Wildlife Refuge |
| PATNR | John Heinz at Tinicum National Wildlife Refuge | OKLSR | Little Sandy National Wildlife Refuge |
| WIJRR | Jordan River National Fish Hatchery | ARLOR | Logan Cave National Wildlife Refuge |
| WAJHR | Julia Bulter Hansen National Wildlife Refuge for the Columbia White Tailed Deer | NYLIR | Long Island National Wildlife Refuge Complex |
| HIKKR | Kakahaia National Wildlife Refuge | LALWR | Louisiana Wetlands |
| AKKAR | Kanutu National Wildlife Refuge | TNLHR | Lower Hatchie National Wildlife Refuge |
| AKKNR | Kenai National Wildlife Refuge | CALKR | Lower Klamath National Wildlife Refuge |
| CAKRR | Kern National Wildlife Refuge | ORLOR | Lower Klamath National Wildlife Refuge |
| FLKER | Key West National Wildlife Refuge | TXRGR | Lower Rio Grande Valley National Wildlife Refuge |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE (CONT'D) | | | |
|---|---|-------|---|
| FLLSR | Lower Suwannee National Wildlife Refuge | MEMHR | Moosehorn National Wildlife Refuge |
| NCMCR | Mackay Island National Wildlife Refuge | NMMRR | Mora National Wildlife Refuge |
| SDMDR | Madison Wetland Management District | MSMKR | Morgan Brake National Wildlife Refuge |
| MECMR | Maine Coastal Islands National Wildlife Refuge Complex | MNBNR | Morris National Wildlife Refuge |
| ORMAR | Malheur National Wildlife Refuge | TXMLR | Mule Shoe National Wildlife Refuge |
| LAMYR | Mandalay National Wildlife Refuge | INMSR | Muscatatuck National Wildlife Refuge |
| KSMCR | Maris des Cygnes National Wildlife Refuge | WYNER | National Elk Refuge |
| ILMTR | Mark Twain National Wildlife Refuge | FLNKR | National Key Deer Refuge |
| VAMNR | Mason Neck National Wildlife Refuge | IANSR | Neal Smith National Wildlife Refuge |
| TXMAR | Matagorda National Wildlife Refuge | WINCR | Necedah National Wildlife Refuge |
| MSMBR | Mathews Brake National Wildlife Refuge | ORNTR | Nestucca Bay National Wildlife Refuge |
| FLMAR | Matlacha Pass National Wildlife Refuge | WANQR | Nisqually National Wildlife Refuge |
| NCMTR | Mattamuskeet National Wildlife Refuge | NENPR | North Platte National Wildlife Refuge |
| NMMXR | Maxwell National Wildlife Refuge | ARNAR | Northeast Arkansas Refuges |
| TXMCR | McFaddin National Wildlife Refuge | AKNOR | Nowitna National Wildlife Refuge |
| MNMGR | McGregor District, Upper Mississippi National Wildlife Refuge | MSNXR | Noxubee National Wildlife Refuge |
| ORMKR | McKay Creek National Wildlife Refuge | VAOQR | Occoquan Bay National Wildlife Refuge |
| WAMNR | McNary National Wildlife Refuge | WVOHR | Ohio River Islands National Wildlife Refuge |
| FLMIR | Merritt Island National Wildlife Refuge | GAOKR | Okefenokee National Wildlife Refuge |
| NMMSR | Mescalero Refuge Hatchery | OKOBR | Oklahoma Bat Caves National Wildlife Refuge |
| MIMWR | Michigan Wetland Management District | OKOPR | Optima National Wildlife Refuge |
| MIMIR | Michigan Island National Wildlife Refuge | ORORR | Oregon Islands National Wildlife Refuge |
| WAMCR | Mid Columbia National Wildlife Refuge Complex | OHOTR | Ottawa National Wildlife Refuge |
| MOMOR | Mingo National Wildlife Refuge | UTOWR | Ouray National Wildlife Refuge |
| IDMNR | Minidoka National Wildlife Refuge | AROVR | Overflow National Wildlife Refuge |
| MNMVR | Minnesota Valley National Wildlife Refuge | NVPRR | Pahranagat National Wildlife Refuge |
| VTMQR | Missisquoi National Wildlife Refuge | VAPBX | Paint Bank National Fish Hatchery |
| MSMSR | Mississippi Sandhill Crane National Wildlife Refuge | MSPNR | Panther Swamp National Wildlife Refuge |
| MSMWR | Mississippi Wetlands Authority | MAPRR | Parker River National Wildlife Refuge |
| NVMVR | Moapa Valley National Wildlife Refuge | FLPAR | Passage Key National Wildlife Refuge |
| CAMDR | Modoc National Wildlife Refuge | INPKR | Patoka River National Wildlife Refuge |
| COMVR | Monte Vista National Wildlife Refuge | MDPWR | Patuxent National Wildlife Refuge |
| NYMZR | Montezuma National Wildlife Refuge | NCPLR | Pea Island National Wildlife Refuge |
| TXMDR | Moody National Wildlife Refuge | HIPHR | Pearl Harbor National Wildlife Refuge |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE (CONT'D) | | | |
|--|---|-------|--|
| NCPER | Pee Dee National Wildlife Refuge | OKSLR | Salt Plains National Wildlife Refuge |
| FLPLR | Pelican Island National Wildlife Refuge | CASSR | Salton Sea National Wildlife Refuge |
| MIPCR | Pendills Creek National Fish Hatchery | NMSNR | San Andreas National Wildlife Refuge |
| GAPDR | Piedmont National Wildlife Refuge | TXSNR | San Bernard National Wildlife Refuge |
| WAPIR | Pierce National Wildlife Refuge | AZSBR | San Bernardino National Wildlife Refuge |
| SCPKR | Pinckney Island National Wildlife Refuge | CAFW | San Francisco Bay National Wildlife Refuge |
| FLPIR | Pine Island National Wildlife Refuge | WASNR | San Juan Islands National Wildlife Refuge |
| FLPNR | Pinellas National Wildlife Refuge | CALUR | San Luis National Wildlife Refuge |
| NCPOR | Pocosin Lakes National Wildlife Refuge | CASPR | San Pablo National Wildlife Refuge |
| ARPCR | Pond Creek National Wildlife Refuge | SDSLR | Sand Lake National Wildlife Refuge |
| IAPLR | Port Louisa National Wildlife Refuge | VISPR | Sandy Point National Wildlife Refuge |
| VAPRR | Potomac River Refuges | TXSTR | Santa Ana National Wildlife Refuge |
| VAPQR | Presquile National Wildlife Refuge | SCSNR | Santee National Wildlife Refuge |
| DEPHR | Prime Hook National Wildlife Refuge | ILSVR | Savanna District, Upper Mississippi National Wildlife Refuge |
| WAPRR | Protection Island National Wildlife Refuge | GASAR | Savannah Coastal Refuges |
| NCMUR | Pungo National Wildlife Refuge | WYSER | Seedskadee National Wildlife Refuge |
| WAQLR | Quillayute Needles National Wildlife Refuge | AKSWR | Selawik National Wildlife Refuge |
| KSQUR | Quivira National Wildlife Refuge | MISNR | Seney National Wildlife Refuge |
| MERCRC | Rachel Carson National Wildlife Refuge | OKSQR | Sequoyah National Wildlife Refuge |
| NERBR | Rainwater Basin Wetland Management District | NMSER | Seville National Wildlife Refuge |
| VARVR | Rappahannock River Valley | NVSAR | Sheldon Antelope National Wildlife Refuge |
| LARRR | Red River National Wildlife Refuge | ORSHR | Sheldon-Hart Mountain National Wildlife Refuge Complex |
| TNRLR | Reelfoot National Wildlife Refuge | LASHR | Shell Keys National Wildlife Refuge |
| RIRIR | Rhode Island National Wildlife Refuge Complex | MNSBR | Sherburne National Wildlife Refuge |
| MNRLR | Rice Lake National Wildlife Refuge | MISSR | Shiawassee National Wildlife Refuge |
| WARFR | Ridgefield National Wildlife Refuge | ORSIR | Siletz Bay National Wildlife Refuge |
| NCRRR | Roanoke River National Wildlife Refuge | TXSRR | South Texas Refuge Complex |
| CORMR | Rocky Mountain Arsenal National Wildlife Refuge | FLSWR | Southwest Florida Gulf Coast Refuges |
| NVRLR | Ruby Lake National Wildlife Refuge | MOSQR | Squaw Creek National Wildlife Refuge |
| MNRYR | Rydell National Wildlife Refuge | MSSCR | St. Catherine Creek National Wildlife Refuge |
| LASBR | Sabine National Wildlife Refuge | WISCR | St. Croix Wetland Management District |
| CASWR | Sacramento National Wildlife Refuge | FLSJR | St. Johns National Wildlife Refuge |
| CASAR | Sacramento River National Wildlife Refuge | FLSMR | St. Marks National Wildlife Refuge |
| WASAR | Saddle Mountain National Wildlife Refuge | FLSVR | St. Vincent National Wildlife Refuge |

| DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE (CONT'D) | | | |
|--|---|-------|---|
| WASGR | Steigerwald Lake National Wildlife Refuge | GATYR | Tybee National Wildlife Refuge |
| CTSMR | Stewart B. McKinney National Wildlife Refuge | ORUMR | Umatilla National Wildlife Refuge |
| NVSWR | Stillwater National Wildlife Refuge | IAUSR | Union Slough National Wildlife Refuge |
| MESHR | Sunkhaze Meadows National Wildlife Refuge | ORUKR | Upper Klamath National Wildlife Refuge |
| NJSPR | Supawna Meadows National Wildlife Refuge | LAUOR | Upper Ouachita National Wildlife Refuge |
| CASTR | Sutter National Wildlife Refuge | NEVAR | Valentine National Wildlife Refuge |
| MOSWR | Swan Lake National Wildlife Refuge | SCWAR | Waccamaw National Wildlife Refuge |
| NCSWR | Swanquarter National Wildlife Refuge | NJWKR | Walkill River National Wildlife Refuge |
| MASCR | Sylvio O. Conte National Wildlife Refuge | ARWPR | Wapanocca National Wildlife Refuge |
| MSTAR | Tallehatchie National Wildlife Refuge | ORWTR | Wapato National Wildlife Refuge |
| MNTMR | Tamarac National Wildlife Refuge | ORWSR | Warm Springs National Fish Hatchery |
| FLTBR | Tampa Bay Refuges | WAWIR | Washington Islands National Wildlife Refuge |
| FLTTR | Ten Thousand Islands National Wildlife Refuge | OKWSR | Washita National Wildlife Refuge |
| TNTNR | Tennessee National Wildlife Refuge | GAWSR | Wassaw National Wildlife Refuge |
| LATNR | Tensas River National Wildlife Refuge | ALWAR | Watercress Darter National Wildlife Refuge |
| AKTER | Tetlin National Wildlife Refuge | SDWAR | Waubay National Wildlife Refuge |
| TXTCR | Texas Chenier Plain Complex | ALWLR | Wheeler National Wildlife Refuge |
| TXTMR | Texas Mid Coast Refuge Complex | ARWHR | White River National Wildlife Refuge |
| TXTPR | Texas Point National Wildlife Refuge | WIWCR | Whittlesey Creek National Wildlife Refuge |
| ORTAR | Three Arch Rocks National Wildlife Refuge | OKWMR | Wichita Mountains National Wildlife Refuge |
| CATNR | Tijuana Slough National Wildlife Refuge | WAWLR | Willapa National Wildlife Refuge |
| OKTSR | Tishomingo National Wildlife Refuge | ORWMR | William L. Finley National Wildlife Refuge |
| AKTGR | Togiak National Wildlife Refuge | AZWCR | William's Creek National Wildlife Refuge |
| WATPR | Toppenish National Wildlife Refuge | MNWWR | Windom Wetland Management District |
| WITPR | Trempeleau National Wildlife Refuge | WIWNR | Winona District, Upper Mississippi National Wildlife Refuge |
| TXTRR | Trinity River National Wildlife Refuge | GAWLR | Wolf Island National Wildlife Refuge |
| ORTUR | Tualatin River National Wildlife Refuge | MSYZR | Yazoo National Wildlife Refuge |
| CATLR | Tule Lake National Wildlife Refuge | AKYDR | Yukon Delta National Wildlife Refuge |
| WATBR | Turnbull National Wildlife Refuge | AKYFR | Yukon Flats National Wildlife Refuge |
| ILTWR | Two Rivers National Wildlife Refuge | | |

| DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE | | | |
|--|---|-------|---|
| KYALP | Abraham Lincoln Birthplace National Historic Site | COBCP | Black Canyon of the Gunnison National Preserve |
| MEACP | Acadia National Park | NCBRP | Blueridge Parkway |
| MAADP | Adams National Historic Site | VABWP | Booker T. Washington National Monument |
| NEAFP | Agate Fossil Beds National Monument | MABOP | Boston National Historic Park |
| AKROP | AKRO Default Park Group | MSBCP | Brices Cross Roads National Battlefield Site |
| TXAFP | Alibates Flint Quarries National Monument | UTBRP | Bryce Canyon National Park |
| PAAPP | Allegheny Portage Railroad National Historic Site | VIBIP | Buck Island Reef National Monument |
| GUAMP | American Memorial Park | ARBUP | Buffalo National River |
| TXAMP | Amistad National Recreation Area | CACAP | Cabrillio National Monument |
| GAANP | Andersonville National Historic Site | FLCAP | Canaveral National Seashore |
| TNASP | Andrew Johnson National Historic Site | LACAP | Cane River Creole National Historic Park |
| AKANP | Aniakchak National Park & Preserve | AZCAP | Canyon De Chelly National Monument |
| DCANP | Antietam National Battlefield | UTCAP | Canyonlands National Park |
| WIAIP | Apostle Islands National Lakeshore | MACCP | Cape Cod National Seashore |
| DCAPP | Appalachian National Scenic Trail | NCCHP | Cape Hatteras National Seashore |
| VAACP | Appomattox Court House National Historic Park | AKKRP | Cape Krusenstern National Monument |
| UTARP | Arches National Park | NCCLP | Cape Lookout National Seashore |
| ARARP | Arkansas Post National Monument | UTCRC | Capitol Reef National Park |
| MDAIP | Assateague Island National Seashore | NMCAP | Capulin Volcano National Monument |
| MIAUP | Automobile National Heritage Area | NCCSP | Carl Sandburg Home National Historic Site |
| NMAZP | Aztec Ruins National Monument | NMCCP | Carlsbad Caverns National Park |
| SDBDP | Badlands National Park | AZCGP | Casa Grande National Monument |
| NMBAP | Bandelier National Monument | FLCDP | Castillo De San Marcos National Monument |
| COBFP | Bents Old Fort National Historic Site | DCCAP | Catoctin Mountain Park |
| AKBLP | Bering Land Bridge National Preserve | UTCBP | Cedar Breaks National Monument |
| TXBBP | Big Bend National Park | TXCHP | Chamizal National Monument |
| FLBCP | Big Cypress National Park | CACNP | Channel Islands National Park |
| MTBHP | Big Hole National Battlefield | SCCPP | Charles Pinckney National Historic Site |
| MTBIP | Big Horn Canyon National Recreation Area | GACRP | Chattahoochee River National Recreation Area |
| TNBSP | Big South Fork National Recreation Area | DCCOP | Chesapeake & Ohio Canal National Historic Park |
| TXBTP | Big Thicket National Preserve | ILCPP | Chicago Portage National Historic Site |
| WYBHP | Bighorn Canyon National Recreation Area | GACHP | Chickamauga & Chatanooga National Memorial Park |
| FLBIP | Biscayne National Preserve | OKCHP | Chickasaw National Recreation Area |

DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE (CONT'D)

| | | | |
|-------|---|-------|---|
| AZCHP | Chiricahua National Monument | NYFIP | Fire Island National Seashore |
| VICHP | Christiansted National Historic Site | OHFLP | First Ladies National Historic Site |
| IDCRP | City of Rocks National Reserve | COFFP | Florissant Fossil Beds National Park |
| DCCDP | Clara Barton Park | TXFDP | Fort Davis National Historic Site |
| VACOP | Colonial National Historic Park | KSFLP | Fort Larned National Historic Site |
| COCNP | Colorado National Monument | CAFPP | Fort Point National Historic Site |
| SCCSP | Congaree Swamp National Monument | KSFSP | Fort Scott National Historic Site |
| AZCOP | Coronado National Monument | SCFSP | Fort Sumter National Monument |
| SCCWP | Cowpens National Monument | NMFUP | Fort Union National Monument |
| ORCLP | Crater Lake National Park | NDFUP | Fort Union Trading Post National Historic Site |
| IDCMP | Craters of the Moon National Monument | DCFWP | Fort Washington Park |
| KYCGP | Cumberland Gap National Historic Park | WYFBP | Fossil Butte National Monument |
| GACIP | Cumberland Island National Seashore | MAFRP | Frederick Law Olmsted National Historic Site |
| COCCP | Curecanti National Recreation Area | VAFSP | Fredricksburg/Spotsylvania National Memorial Park |
| OHCVP | Cuyahoga Valley National Park | PAFHP | Friendship Hill National Historic Site |
| OHDBP | David Berger National Monument | FLFCP | Fort Caroline National Monument |
| OHDAP | Dayton Aviation Heritage National Historic Park | ORFCP | Fort Clatsop National Monument |
| CADVP | Death Valley National Park | TNFDP | Fort Donelson National Memorial Park |
| PADWP | Delaware Water Gap National Recreation Area | GAFFP | Fort Frederica National Monument |
| AKDEP | Denali National Park & Preserve | FLFJP | Fort Jefferson National Monument |
| FLDNP | DeSoto National Monument | WYFLP | Fort Laramie National Historic Site |
| CADPP | Devils Postpile National Monument | FLFMP | Fort Matanzas National Monument |
| WYDTP | Devils Tower National Monument | MDFMP | Fort McHenry National Monument |
| UTDSP | Dinosaur National Monument | PAFNP | Fort Necessity National Battlefield |
| CODSP | Dinosaur National Park | GAFPP | Fort Pulaski National Monument |
| FLDTP | Dry Tortugas National Park | NCFRP | Fort Raleigh National Historic Site |
| AKEAP | Eastern Alaska Park Group | NYFOP | Ft. Sanwix National Monument |
| WAELP | Ebey's Landing National Historical Reserve | ARFSP | Fort Smith National Historic Site |
| NJEDP | Edison National Historic Site | WAFVP | Fort Vancouver National Historic Site |
| IAEMP | Effigy Mounds National Monument | AKGAP | Gates of the Arctic National Park & Preserve |
| NMEMP | El Malpais National Monument | NYGAP | Gateway National Recreation Area |
| NMELP | El Morrow National Monument | INGRP | George Rogers Clark National Historic Park |
| CAEOP | Eugene O'Neill National Historic Site | VAGWP | George Washington Birthplace National Monument |
| FLEVP | Everglades National Park | MOGWP | George Washington Carver National Monument |
| MIFMP | Father Marquette National Monument | | |

DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE (CONT'D)

| | | | |
|-------|--|-------|--|
| VAGMP | George Washington Memorial Parkway | AZHUP | Hubbell Trading Post National Historic Park |
| PAGEP | Gettysburg National Memorial Park | WIIAP | Ice Age National Park |
| NMGIP | Gila Cliff Dwellings National Monument | ILIMP | Illinois and Michigan Canal National Heritage Corridor |
| AKGBP | Glacier Bay National Park & Preserve | PAINP | Independence National Historic Park |
| MTGNP | Glacier National Park | INIDP | Indiana Dunes National Lakeshore |
| UTGLP | Glen Canyon National Recreation Area | NDIPP | International Peace Gardens |
| CAGNP | Golden Gate National Recreation Area | MIIRP | Isle Royale National Park |
| UTGSP | Golden Spike National Historic Site | OHJGP | James A. Garfield National Historic Site |
| AZGCP | Grand Canyon National Park | LAJEP | Jean Lafitte National Historic Park & Preserve |
| MNGPP | Grand Portage National Monument | MOJEP | Jefferson National Expansion Memorial |
| WYGTP | Grand Teton National Park | SDJCP | Jewel Cave National Monument |
| MTGKP | Grant-Kohrs Ranch National Historic Site | GAJCP | Jimmy Carter National Historic Site |
| NVGBP | Great Basin National Park | ORJDP | John Day Fossil Beds National Monument |
| COGSP | Great Sand Dunes National Monument | MAJFP | John Fitzgerald Kennedy National Historic Site |
| TNGSP | Great Smoky Mountains National Park | CAJMP | John Muir National Historic Site |
| DCGRP | Greenbelt Park | PAJFP | Johnstown Flood National Monument |
| TXGUP | Guadalupe Mountains National Park | CAJTP | Joshua Tree National Monument |
| NCGIP | Guilford Courthouse National Memorial Park | HIKAP | Kalaupapa National Historic Park |
| FLGIP | Gulf Island National Seashore | HIKHP | Kaloko-Hokohau National Historic Park |
| IDHFP | Hagerman Fossil Beds National Monument | AKKAP | Katmai National Park & Preserve |
| HIHKP | Haleakala National Park | AKKEP | Kenai Fjords National Park |
| MDHAP | Hampton National Historic Site | GAKEP | Kennesaw Mountain National Battlefield Park |
| DCHFP | Harpers Ferry National Historic Park | MIKWP | Keweenaw National Historic Park |
| MOHTP | Harry S. Truman National Historic Site | SCKMP | Kings Mountain National Memorial Park |
| HIHVP | Hawaii Volcanoes National Park | AKKLP | Klondike Gold Rush National Historic Park |
| IAHHP | Herbert Hoover National Historic Site | WAKGP | Klondike Gold Rush National Historic Park-Seattle Unit |
| NYFDP | Home of Franklin D. Roosevelt National Historic Site | NDKRP | Knife River Indian Villages National Historic Site |
| NEHOP | Homestead National Monument | AKKOP | Kobuk Valley National Park |
| OHHCP | Hopewell Culture National Historic Park | WALCP | Lake Chelan National Recreation Area |
| PAHEP | Hopewell Furnace National Historic Site | AKLCP | Lake Clark National Park & Preserve |
| ALHBP | Horseshoe Bend National Monument | NVLAP | Lake Mead National Recreation Area |
| ARHOP | Hot Springs National Park | TXLAP | Lake Meredith National Recreation Area |
| UTHOP | Hovenweep National Monument | WALRP | Lake Roosevelt National Recreation Area |

DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE (CONT'D)

| | | | |
|-------|---|-------|--|
| CALNP | Lassen Volcanic National Park | WVNRP | New River Gorge NR |
| CABNP | Lava Beds National Monument | IDNPP | Nez Perce National Historic Park |
| INLBP | Lincoln Boyhood National Monument | SCNIP | Ninety Six National Historic Site |
| ILLHP | Lincoln Home National Historic Site | AKNOP | Noatak Preserve |
| MTLBP | Little Bighorn Battlefield National Historic District | WANCP | North Cascades National Park |
| ALLRP | Little River Canyon National Park | WINCP | North Country National Scenic Trail |
| MALOP | Longfellow National Historic Site | TNOWP | Obed Wild & Scenic River |
| MALWP | Lowell National Historic Park | GAOCP | Ocmulgee National Monument |
| TXLYP | Lyndon B. Johnson National Historic Park | WAOLP | Olympic National Park |
| KYMCP | Mammoth Cave National Park | OROCP | Oregon Caves National Monument |
| VAMAP | Manassas National Battlefield Park | AZORP | Organ Pipe Cactus National Monument |
| NYMAP | Manhattan Sites | MOOZP | Ozark National Scenic River |
| VTMBP | Marsh–Billings–Rockefeller National Historic Park | TXPAP | Padre Island National Seashore |
| GAMLP | Martin Luther King Junior National Historic Site | TXPBP | Palo Alto Battlefield National Historic Site |
| NYMVP | Martin Van Buren National Historic Site | ARPEP | Pea Ridge National Memorial Park |
| COMVP | Mesa Verde National Park | NMPEP | Pecos National Historic Park |
| MAMIP | Minute Man National Historic Park | OHPVP | Perry's Victory & International Peace Memorial |
| MNMSP | Mississippi National Recreation Area | VAPEP | Petersburg National Battlefield |
| CAMNP | Mojave National Park | AZPFP | Petrified Forest National Park |
| DCMOP | Monocacy National Battlefield | NMPGP | Petroglyphs National Monument |
| AZMCP | Montezuma Castle National Monument | MIPRP | Pictured Rocks National Lakeshore |
| NCMOP | Moores Creek National Battlefield Park | CAPIP | Pinnacles National Monument |
| NJMOP | Morristown National Historic Park | MNPSP | Pipestone National Monument |
| SDMRP | Mount Rushmore National Monument | DCPIP | Piscataway Park |
| WAMRP | Mt. Rainier National Park | CARNP | Point Reyes National Seashore |
| MSNHP | Natchez National Historical Park | LAPOP | Poverty Point National Monument |
| MSNSP | Natchez Trace National Scenic Trail | CAPRP | Presidio of San Francisco |
| MSNAP | Natchez Trace Parkway | VAPWP | Prince William Forest Park |
| DCNPP | National Capitol Parks–Central | HIPHP | Puukohola Heiau National Historic Site |
| DCNEP | National Capitol Parks–East | HIPUP | Puuohonua O Honaunau National Historic Park |
| UTNBP | Natural Bridges National Monument | UTRAP | Rainbow Bridge National Monument |
| AZNAP | Navajo National Monument | CARWP | Redwood National Park |
| LANOP | New Orleans Jazz National Historic Park | VARIP | Richmond National Battlefield Park |

DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE (CONT'D)

| | | | |
|-------|---|-------|---|
| DCRCP | Rock Creek Park | MDTSP | Thomas Stone National Historic Site |
| CORMP | Rocky Mountain National Park | UTTIP | Timpanogos Cave National Monument |
| RIROP | Roger Williams National Monument | FLTIP | Timucuan Ecological & Historic Preserve |
| MERCP | Roosevelt–Campabello International Park | AZTOP | Tonto National Monument |
| NYRVP | Roosevelt/Vanderbilt National Historic Site | AZTUP | Tumacacori National Monument |
| WARLP | Ross Lake National Recreation Area | MSTBP | Tupelo National Battlefield |
| ALRUP | Russell Cave National Monument | ALTAP | Tuskegee Airmen National Historic Site |
| NYSHP | Sagamore Hill National Historic Site | ALTUP | Tuskegee Institute National Historic Site |
| AZSAP | Saguaro National Park | AZTZP | Tuzigoot National Monument |
| WISCP | Saint Croix National Scenic River | HIUSP | U.S.S. Arizona Memorial |
| NYSPP | Saint Paul's Church National Historic Site | MOUGP | Ulysses S. Grant National Historic Site |
| NHSGP | Saint–Gaudens National Historic Site | NYUDP | Upper Delaware National Scenic & Recreational River |
| MASAP | Salem Maritime National Historic Site | PAVFP | Valley Forge National Historic Park |
| NMSAP | Salinas Pueblo Missions National Monument | MSVIP | Vicksburg National Memorial Park |
| VISRP | Salt River National Historic Park & Ecological Preserve | VIVIP | Virgin Islands National Park |
| TXSAP | San Antonio Missions National Historic Park | MNVOP | Voyageurs National Park |
| WASJP | San Juan Island National Historic Park | AZWAP | Walnut National Monument |
| PRSAP | San Juan National Historic Site | GUWPP | War in Pacific National Historic Park |
| CASMP | Santa Monica Mountains National Recreation Area | OKWBP | Washita Battlefield National Historic Site |
| NYSRP | Saratoga National Historic Park | CTWFP | Weir Farm National Historic Site |
| MASIP | Saugus Iron Works National Historic Site | AKWEP | Western Alaska Park Group |
| NESBP | Scotts Bluff National Monument | CAWNP | Whiskeytown National Recreation Area |
| CAKNP | Sequoia & Kings Canyon National Park | DCWHP | White House |
| VASHP | Shenandoah National Park | NMWHP | White Sands National Monument |
| TNSHP | Shiloh National Memorial Park | WAWMP | Whitman Mission National Historic Site |
| AKSIP | Sitka National Historic Park | OHWHP | William Howard Taft National Historic Site |
| MISDP | Sleeping Bear Dunes National Lakeshore | MOWCP | Wilson's Creek National Battlefield |
| MASPP | Springfield Armory National Historic Site | SDWCP | Wind Cave National Park |
| NYSTP | Statue of Liberty National Monument | VAWTP | Wolf Trap Farm Park |
| PASTP | Steamtown National Historic Site | NYWOP | Woman's Rights National Historic Park |
| TNSTP | Stones River National Battlefield | AKWSP | Wrangel–St. Elias National Park & Preserve |
| AZSUP | Sunset Crater Volcano | NCWRP | Wright Brothers National Monument |
| KSTGP | Tall Grass Prairie National Park | AZWUP | Wupatki National Monument |
| NDTRP | Theodore Roosevelt National Park | WYYNP | Yellowstone National Park |

DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE (CONT'D)

| | | | |
|-------|-------------------------------|-------|--|
| CAYNP | Yosemite National Park | AKYCP | Yukon–Charlie Rivers National Preserve |
| COYHP | Yucca House National Monument | UTZIP | Zion National Park |

SECTION K

K NFDRS Fuel Model at Origin

Definition

This data element identifies the type of wildland fuel involved in a wildland fire at the point of origin. The Fuel Model is a simulated fuel complex or description of various vegetative fuels and combinations of vegetative fuels. Fuel models were devised as a means of organizing information about vegetative fuels for use in the National Fire Danger Rating System (NFDRS) to predict fire danger. The local forester should be able to assist in identifying the fuel models in your area.

Purpose

Fuel models were devised as a means for organizing the required wildland fuels information that is used in the NFDRS to predict the behavior of a potential wildfire.

Entry

Enter the two-digit NFDRS Fuel Model code and description that best identifies the type of wildland vegetation burned at the point of origin.

Example

The fire area consisted of mostly mature brush (02):NFDRS FUEL MODEL AT ORIGIN CODES

K NFDRS Fuel Model at Origin

Enter the code and the descriptor corresponding to the NFDRS Fuel Model at Origin

02 Mature brush

NFDRS FUEL MODEL AT ORIGIN CODES

- 01 Fuel Model A—Annual grasses. This fuel model represents grasslands vegetated by annual grasses and forbs. Brush or trees may be present but are very sparse, occupying less than one-third of the area. Examples of types where Fuel Model A should be used are cheatgrass and medusahead. Open pinyon-juniper, sagebrush-grass, and desert shrub association may appropriately be assigned this fuel model if the woody plants meet the density criteria. The quantity and continuity of the ground fuels vary greatly with rainfall from year-to-year.
- 02 Fuel Model B—Mature brush (6 feet or higher). Mature, dense fields of brush 6 feet (2 m) or more in height are represented by this fuel model. One-fourth or more of the aerial fuel in such stands is dead. Foliage burns readily. Model B fuels are potentially very dangerous, fostering intense, fast-spreading fires. This model is for California mixed chaparral generally 30 years or older. The B model is more appropriate for pure chamise stands. The B model may also be used for the New Jersey pine barrens.

- 03 Fuel Model C—Open pine with grass. Open pine stands typify Model C fuels. Perennial grasses and forbs are the primary ground fuel, but there is enough needle litter and branchwood present to contribute significantly to the fuel loading. Some brush and shrubs may be present, but they are of little consequence. Situations covered by Fuel Model C are open, longleaf, slash, ponderosa, jeffrey, and sugar pine stands. Some pinyon-juniper stands may qualify.
- 04 Fuel Model D—Southern rough. This fuel model is specifically for the palmetto-gallberry understory–pine overstory association of the southeast coastal plains. It can also be used for the so-called “low pocosins” where Fuel Model O might be too severe. This model should only be used in the Southeast because of a high moisture of extinction.
- 05 Fuel Model E—Hardwood litter (fall). Use this model after leaf fall for hardwood and mixed hardwood–conifer types where the hardwoods dominate. The fuel is primarily hardwood leaf litter. The oak–hickory types are best represented by Fuel Model E, but E is an acceptable choice for northern hardwoods and mixed forests of the Southeast. In high winds, the fire danger may be underrated because rolling and blowing leaves are not taken into account. In the summer after the trees have leafed out, Fuel Model E should be replaced by Fuel Model R.
- 06 Fuel Model F—Intermountain West brush. Model F represents mature closed chamise stands and oakbrush fields of Arizona, Utah, and Colorado. It also applies to young, closed stands and mature, open stands of California mixed chaparral. Open stands of pinyon-juniper are represented; however, fire activity will be overrated when windspeeds are low and where ground fuels are sparse.
- 07 Fuel Model G—West Coast conifers; close, heavy down materials. Fuel Model G is used for dense conifer stands where there is a heavy accumulation of litter and downed woody material. Such stands are typically overmature and may also be suffering insect, disease, wind, or ice damage—natural events that create a very heavy buildup of dead material on the forest floor. The duff and litter are deep, and much of the woody material is more than 3 in (7.5 cm) in diameter. The undergrowth is variable, but shrubs are usually restricted to openings. Types meant to be represented by Fuel Model G are hemlock–Sitka spruce, coast douglas fir, and wind-thrown or bug-killed stands of lodgepole pine and spruce.
- 08 Fuel Model H—Short-needle conifers; normal down woody materials. The short-needled conifers (white pines, spruces, larches, and firs) are represented by Fuel Model H. In contrast to Model G fuels, Fuel Model H describes a healthy stand with sparse undergrowth and a thin layer of ground fuels. Fires in H fuels are typically slow spreading and are dangerous only in scattered areas where the downed woody material is concentrated.
- 09 Fuel Model I—Heavy slash, clear-cut conifers greater than 25 tons per acre. Fuel Model I was designed for clearcut conifer slash where the total loading of materials less than 6 in (15 cm) in diameter exceeds 25 tons per acre. After settling and the fines (needles and twigs) fall from the branches, Fuel Model I will overrate the fire potential. For lighter loadings of clearcut conifer slash, Fuel Model J should be used, and for light thinnings and partial cuts where the slash is scattered under a residual overstory, Fuel Model K should be used.
- 10 Fuel Model J—Medium slash, heavily thinned conifers (less than 25 tons per acre). This model complements Fuel Model I. It is for clearcuts and heavily thinned conifer stands where the total loading of materials less than 6 in (15 cm) in diameter is less than 25 tons per acre. Again, as the slash ages, the fire potential will be overrated.
- 11 Fuel Model K—Light slash (less than 15 tons per acre). Slash fuels from light thinnings and partial cuts in conifer stands are represented by Fuel Model K. Typically, the slash is scattered about under an open overstory. This model applies to hardwood slash and to southern pine clearcuts where the loading of all fuels is less than 15 tons per acre.
- 12 Fuel Model L—Perennial grasses. This fuel model is meant to represent grasslands vegetated by perennial grasses. The principal species are coarser and the loading heavier than those in Model A fuels. Otherwise the situations are very similar; shrubs and trees occupy less than one-third of the area. The quantity of fuel in these areas is more stable from year-to-year. In sagebrush areas, Fuel Model T may be more appropriate.

- 14 Fuel Model N—Sawgrass, marsh needle-like grass. This fuel model was constructed specifically for the sawgrass prairies of south Florida. It may be useful in other marsh situations where the fuel is coarse and reedlike. The model assumes that one-third of the aerial portion of the plants is dead. Fast-spreading, intense fires can occur even over standing water.
 - 15 Fuel Model O—High pocosin. Fuel Model O applies to dense, brushlike fuels of the Southeast. O fuels, except for a deep litter layer, are almost entirely living, in contrast to B fuels. The foliage burns readily except during the active growing season. The plants are typically over 6 ft (2 m) tall and are often found under an open stand of pine. The high pocosins of the Virginia, North Carolina, and South Carolina coasts are the ideal of Fuel Model O. If the plants do not meet the 6-ft (2-m) criteria in those areas, Fuel Model D should be used.
 - 16 Fuel Model P—Southern long-needle pine. Closed, thrifty stands of long-needled southern pines are characteristic of P fuels. A 2- to 4-in (5- to 10-cm) layer of lightly compacted needle litter is the primary fuel. Some small-diameter branchwood is present, but the density of the canopy precludes more than a scattering of shrubs and grass. Fuel Model P has the high moisture of extinction characteristic of the Southeast. The corresponding model for other long-needled pines is U.
 - 17 Fuel Model Q—Alaska black spruce. Upland Alaskan black spruce is represented by Fuel Model Q. The stands are dense but have frequent openings filled with usually flammable shrub species. The forest floor is a deep layer of moss and lichens, but there is some needle litter and small-diameter branchwood. The branches persist on the trees, and ground fires easily reach into the tree crowns. This fuel model may be useful for jack pine stands in the Lake States. Ground fires are typically slow spreading, but a dangerous crowning potential exists.
 - 18 Fuel Model R—Hardwood litter (summer). This fuel model represents the hardwood areas after the canopies leaf out in the spring. It is provided as the off-season substitute for Fuel Model F. It should be used during the summer in all hardwood and mixed conifer–hardwood stands where more than half of the overstory is deciduous.
 - 19 Fuel Model S—Tundra. Alaskan or alpine tundra on relatively well-drained sites is the S fuel. Grass and low shrubs are often present, but the principal fuel is a deep layer of lichens and moss. Fires in these fuels are not fast spreading or intense, but are difficult to extinguish.
 - 20 Fuel Model T—Sagebrush with grass. The bothersome sagebrush–grass types of the Great Basin and the Intermountain West are characteristic of T fuels. The shrubs burn easily and are not dense enough to shade out grass and other herbaceous plants. The shrubs must occupy at least one-third of the site, or the A or L fuel models should be used. Fuel Model I might be used for immature scrub oak and desert shrub associations in the West and the scrub oak–wire grass type in the Southeast.
 - 21 Fuel Model U—Western long-needled pine. Closed stands of western long-needled pines are covered by this model. The ground fuels are primarily litter and small branchwood. Grass and shrubs are precluded by the dense canopy, but occur in the occasional natural opening. Fuel Model U should be used for ponderosa, Jeffrey, sugar, and red pine stands of the Lake States. Fuel Model P is the corresponding model for southern pine plantations.
- UU Undetermined.

SECTION L

This section collects demographic information on the person(s) who were responsible for the fire, whether it was intentionally set or started by an act of carelessness.

L¹ Person Responsible for Fire

Definition

The identification of whether a person (known or unknown) was responsible for the fire (either by carelessness or intent).

Purpose

This information can be used with other demographic information to identify and target fire prevention education or enforcement programs for specific audiences.

Entry

Check or mark the box that best describes the involvement of a person in causing the fire. If the person responsible for causing the fire is known, identifying information about the person can be entered in Block K1 of the Basic Module or the Supplemental Form (NFIRS-1S).

☛ If a person was identified as having caused the fire, complete Blocks L2–L4.

Example

A wildland fire resulted from the ignition of a pan full of grease that had been left unattended on a camping stove by a man (1) who was subsequently questioned by investigators:

| | |
|--|--|
| L₁ Person Responsible for Fire | |
| 1 | <input checked="" type="checkbox"/> Identified person caused fire |
| 2 | <input type="checkbox"/> Unidentified person caused fire |
| 3 | <input type="checkbox"/> Fire not caused by person |
| If person identified, complete the rest of Section L | |

PERSON RESPONSIBLE FOR FIRE CODES

- | | |
|---|----------------------------------|
| 1 | Identified person caused fire. |
| 2 | Unidentified person caused fire. |
| 3 | Fire not caused by person. |

L² Gender of Person Involved

Definition

The gender of the person responsible for the fire (either by carelessness or intent).

Purpose

Information on the gender of persons involved can be used with other demographic information to identify fire problems in certain segments of the population, and to target fire prevention and fire safety programs for certain audiences.

Entry

Check or mark the box that describes the gender of the person responsible for the fire.

Example

The wildland fire was started when a young boy (1) set a fire in the woods:

| | |
|----------------------|--|
| L₂ | Gender of Person Involved |
| 1 | <input checked="" type="checkbox"/> Male |
| 2 | <input type="checkbox"/> Female |

GENDER CODES

- | | |
|---|---------|
| 1 | Male. |
| 2 | Female. |

L³ Age or Date of Birth

Enter either the age or date of birth of the person identified as being responsible for the fire (either by carelessness or intent). Do not enter both.

Age

Definition

The age of the person identified as being responsible for the fire.

Purpose

This information can be used with other demographic information to identify fire problems in certain segments of the population and to target fire prevention and fire safety programs for certain audiences. This data element is particularly useful in tracking juvenile firesetter trends, when used in combination with Age Was a Factor (Block D2) and Gender of Person Involved (Block L2).

Entry

Enter the age of the person responsible for the fire. Estimate the age if it cannot be determined.

Example

The boy who started the fire was 10 years old:

Example on next page

| L ₃ Age or Date of Birth | | | | | | | |
|-------------------------------------|--|-------|-----|------|--|--|--|
| Age in Years | Date of Birth | | | | | | |
| 1 0 | OR | | | | | | |
| | <table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> | Month | Day | Year | | | |
| Month | Day | Year | | | | | |
| | | | | | | | |

Date of Birth

Definition

The month, day, and year of the birth of the person responsible for the fire.

Purpose

This information is an alternative to Age, which can be used with other demographic information to identify fire problems in certain segments of the population and to target fire prevention and fire safety programs for certain audiences. This data element is particularly useful in tracking juvenile firesetter trends, when used in combination with Age Was a Factor (Block D2) and Gender of Person Involved (Block L2).

- ☛ This data element is used as an alternate method for calculating the casualty's age. Age is collected in NFIRS but Date of Birth is not.

Entry

Enter the date of birth of the person responsible for the fire showing month, day, and year (mm/dd/yyyy).

Example

The person responsible for the fire was born on November 18, 1993:

| L ₃ Age or Date of Birth | | | | | | | |
|-------------------------------------|--|---------------|-----|------|-------|-------|---------------|
| Age in Years | Date of Birth | | | | | | |
| | OR | | | | | | |
| | <table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td> 1 1 </td> <td> 1 8 </td> <td> 1 9 9 3 </td> </tr> </table> | Month | Day | Year | 1 1 | 1 8 | 1 9 9 3 |
| Month | Day | Year | | | | | |
| 1 1 | 1 8 | 1 9 9 3 | | | | | |

L₄ Activity of Person Involved

Definition

Describes the primary activity of the person who was responsible for the fire.

Purpose

Prevention programs and strategy development on wildland areas are of utmost importance in continuing education on fire behavior. Collecting information on the primary activity of the person involved will assist in developing programs that will better address the needs of each activity.

Entry

Enter the two-digit code and description of the activity of the person involved. This entry should report the primary activity of the person who caused the fire.

Example

The fisherman's (6) discarded match ignited the dry brush:

| | | |
|-----------|------------------------------------|---------|
| L4 | Activity of Person Involved | |
| | 0,6 | Fishing |
| | Activity of Person Involved | |

ACTIVITY OF PERSON INVOLVED CODES

| | |
|----|-------------------------------------|
| 01 | Logging/Timber harvest. |
| 02 | Management activities. |
| 03 | Construction/Maintenance. |
| 04 | Social gathering. |
| 05 | Hunting. |
| 06 | Fishing. |
| 07 | Other recreation. |
| 08 | Camping. |
| 09 | Other permitted harvest. |
| 10 | Picnicking. |
| 11 | Non-permitted harvest. |
| 12 | Harvest of illegal material. |
| 13 | Religious or ceremonial activity. |
| 14 | Oil/Gas production. |
| 15 | Military operations. |
| 16 | Subsistence. |
| 17 | Mining. |
| 18 | Livestock grazing. |
| 19 | Target practice. |
| 20 | Blasting. |
| 21 | Fireworks use. |
| 00 | Activity of person involved, other. |

SECTION M**M Type of Right-of-Way**

This data field is completed only for fires starting on or near (within 99 feet) roads, railroads, or power line rights-of-way.

Definition

This refers to the horizontal distance between the point of fire origin from the edge of the traveled surface of a road or the nearest outside rail of a railroad right-of-way, or from the nearest power line or power transmission equipment of a utility right-of-way.

This section contains two data elements: (1) the actual measured or estimated horizontal distance (to the nearest foot, up to 99 feet) of the point of fire origin from the right-of-way; and (2) a description of the type of right-of-way on or near where the fire started.

Purpose

Aggregate data about horizontal distances from rights-of-way provide information necessary to assess the risks of certain hazards and to develop hazard reduction strategies such as regulations for controlling combustible fuels along roads and other rights-of-way.

Entry

Enter the actual measured or estimated horizontal distance (to the nearest foot, up to 99 feet) of the point of fire origin from the right-of-way and the three-digit code and description of the right-of-way. If there is no right-of-way 100 or more feet from the fire origin, check or mark the None box.

Example

A fire starts in brush located 5 feet from railroad tracks (951):

| | | |
|--|--|-------------------------------|
| M | Type of Right-of-Way | <input type="checkbox"/> None |
| Required if less than 100 feet | | |
| <u> </u> <u> </u> <u> </u> | <u> </u> <u> </u> <u> </u> | |
| <u> </u> <u> </u> <u> </u> Feet | <u> </u> <u> </u> <u> </u> R&R tracks | |
| Horizontal distance from right-of-way | Type of right-of-way | |

TYPE OF RIGHT-OF-WAY CODES

| | |
|-----|--|
| 919 | Dump, sanitary landfill. |
| 921 | Bridge, trestle. |
| 922 | Tunnel. |
| 926 | Outbuilding. Excludes garage. |
| 931 | Open land, field. |
| 935 | Campsite with utilities. |
| 936 | Vacant lot. |
| 938 | Graded and cared-for plots of land. |
| 940 | Water area. |
| 951 | Railroad right-of-way. |
| 952 | Railroad yard. |
| 960 | Street, other. |
| 961 | Highway or divided highway. |
| 962 | Residential street, road, or residential driveway. |
| 963 | Street or road in commercial area. |
| 965 | Vehicle parking area. |
| 972 | Aircraft runway. |
| 973 | Aircraft taxiway. |
| 974 | Aircraft loading area. |
| 981 | Construction site. |
| 982 | Oil, gas field. |
| 983 | Pipeline, power line, or other utility right-of-way. |
| 984 | Industrial plant yard, area. |
| 000 | Type of right-of-way, other. |
| UUU | Undetermined. |
| NNN | None. |

SECTION N

N Fire Behavior

These optional descriptors refer to observations made at the point of initial attack. Use of these descriptors will most likely be limited to local, State, and Federal wildland management agencies that are trained in making such observations.

This section describes the topographical features and fire characteristics that contributed to the fire behavior. Information about fire behavior is used in fire modeling to assess the potential for ignition and rate of spread for different fuels under various conditions.

Elevation*Definition*

Elevation refers to the numeric representation of the distance from mean sea level to the wildland fire, measured in feet.

Purpose

Aggregate data on the distance from sea level may provide information necessary to assess the risks and hazards of wildland fires at different elevations.

Entry

Enter the distance from mean sea level measured in feet. See completed example at the end of Section N.

Relative Position on Slope*Definition*

This observation indicates a point location's relative position on a slope.

Purpose

Aggregate data on the relative position on a slope, combined with wind and weather information, may provide information necessary to assess the risks and hazards of wildland fires at different positions.

Entry

Enter the appropriate code and description of the relative position on the slope. See completed example at the end of Section N.

RELATIVE POSITION ON SLOPE CODES

| | |
|---|----------------|
| 0 | Valley bottom. |
| 1 | Lower slope. |
| 2 | Mid slope. |
| 3 | Upper slope. |
| 4 | Ridge top. |

Aspect*Definition*

Aspect is the general direction that a given slope faces.

Purpose

Aggregate data on the general direction a given slope faces, combined with wind and weather information, may provide information necessary to assess the risks and hazards of wildland fires at different aspects.

Entry

Enter the appropriate code and description of the general direction that a given slope faces. See completed example at the end of Section N.

ASPECT CODES

| | |
|---|------------|
| 0 | Flat/None. |
| 1 | Northeast. |
| 2 | East. |
| 3 | Southeast. |
| 4 | South. |
| 5 | Southwest. |
| 6 | West. |
| 7 | Northwest. |
| 8 | North. |

Flame Length*Definition*

This observation refers to the distance between the flame tip and midpoint of the flame depth at the base of the flame (generally the ground surface), measured in feet.

Entry

Enter the flame length in feet. See completed example at the end of Section N.

Rate of Spread*Definition*

This is a measurement of the approximate rate of forward spread of a fire front, expressed in chains per hour.

- ☛ The length of a chain is 66 feet (20.1 meters). The term is derived from a surveying instrument consisting of 100 links of metal.

Entry

Enter the approximate rate of spread in chains per hour.

Example

Elevation of 4,000 feet above sea level.

At the time of observation, the fire was mid slope (2).

The slope faced the northwest (7).

The flame was 4 feet in length.

Extreme fire behavior: spotting and crowing with a rate of spread of 80 chains per hour.

N **Fire Behavior**

These optional descriptors refer to observations made at the point of initial attack

Feet
Elevation

|
Relative position on slope

|
Aspect

Feet
Flame length

Chains per Hour
Rate of spread

A

FDID ☆ State ☆ Incident Date MM DD YYYY Station Incident Number ☆ Exposure ☆

Delete
 Change

NFIRS-9 Apparatus or Resources

| B Apparatus or Resources Use codes listed below | | Dates and Times Midnight is 0000 Check if same date as Alarm date on the Basic Module (Block E1). Month Day Year Hour/Min | | | | Sent <input checked="" type="checkbox"/> | Number of People ☆ | Apparatus Use ☆ Check ONE box for each apparatus to indicate its main use at the incident. <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | Actions Taken List up to 4 actions for each apparatus. |
|---|--------------------------|---|----------------------------------|--------------------------------|--------------------------|--|--|--|--|
| 1 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 2 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 3 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 4 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 5 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 6 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 7 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 8 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |
| 9 | ID _____ ☆ Type _____ | Dispatch <input type="checkbox"/> | Arrival <input type="checkbox"/> | Clear <input type="checkbox"/> | <input type="checkbox"/> | _____ | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | ____ ____ ____ ____ | |

| Apparatus or Resource Type | Aircraft | Medical and Rescue | |
|--|--|---|---|
| Ground Fire Suppression 11 Engine 12 Truck or aerial 13 Quint 14 Tanker and pumper combination 16 Brush truck 17 ARFF (aircraft rescue and firefighting) 10 Ground fire suppression, other | 41 Aircraft: fixed-wing tanker 42 Helitanker 43 Helicopter 40 Aircraft, other | 71 Rescue unit 72 Urban search and rescue unit 73 High-angle rescue unit 75 BLS unit 76 ALS unit 70 Medical and rescue unit, other | More apparatus? Use additional sheets. |
| Heavy Ground Equipment 21 Dozer or plow 22 Tractor 24 Tanker or tender 20 Heavy ground equipment, other | Marine Equipment 51 Fire boat with pump 52 Boat, no pump 50 Marine equipment, other | Other 91 Mobile command post 92 Chief officer car 93 HazMat unit 94 Type I hand crew 95 Type II hand crew 99 Privately owned vehicle 00 Other apparatus/resources | |
| | Support Equipment 61 Breathing apparatus support 62 Light and air unit 60 Support apparatus, other | | NN None UU Undetermined |

NFIRS-9 Revision 01/01/04

CHAPTER 11

APPARATUS OR RESOURCES MODULE (NFIRS-9)

The Apparatus or Resources Module (NFIRS-9) is an optional module that is used to help manage and track apparatus and resources used on incidents.

- If both apparatus and personnel need to be reported, use the Personnel Module (NFIRS-10) instead of this module.

SECTION A

The guidance and directions for completing Section A of the Apparatus or Resources Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Apparatus or Resources Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3-8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If this report is for an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous Apparatus or Resources Module or a deletion of all information regarding the incident.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this Apparatus or Resources Module and now want to have the data on this report deleted from the database. If this box is marked, complete Section A and the ID Number from Section B and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Apparatus or Resources Type ☆

Definition

The type and identification number for the apparatus or resources used at the incident.

- ☛ The apparatus Type field is a required field; complete the ID number of the resource or apparatus if appropriate.

Purpose

This information is useful in determining actual apparatus or resource requirements for different types of incidents and for different levels of incident severity as well as for tracking times and actions taken by apparatus or resource type.

Entry

Enter the identification number for each apparatus or resource used at the incident and the two-digit code for the type of apparatus or resource. If more than nine apparatus or resources were used, complete an additional NFIRS-9 module.

- Individual fire departments often assign a unique number to each piece of apparatus in the department.

Example

An engine (11) responded to the incident. Its assigned identification number is 12547:

| B Apparatus or Resources | |
|--------------------------|--------------|
| Use codes listed below | |
| 1 | ID 1 2 5 4 7 |
| ★ Type | 1 1 |

APPARATUS OR RESOURCE TYPE CODES

Ground Fire Suppression

- 11 Engine.
- 12 Truck or aerial.
- 13 Quint.
- 14 Tanker and pumper combination.
- 16 Brush truck.
- 17 ARFF (aircraft rescue and firefighting).
- 10 Ground fire suppression, other.

Heavy Ground Equipment

- 21 Dozer or plow.
- 22 Tractor.
- 24 Tanker or tender.
- 20 Heavy ground equipment, other.

Aircraft

- 41 Aircraft, fixed-wing tanker.
- 42 Helitanker.
- 43 Helicopter.
- 40 Aircraft, other.

Marine Equipment

- 51 Fire boat with pump.
- 52 Boat, no pump.
- 50 Marine equipment, other.

Support Equipment

- 61 Breathing apparatus support.
- 62 Light and air unit.
- 60 Support apparatus, other.

Medical and Rescue Unit

- 71 Rescue unit.
- 72 Urban search and rescue unit.
- 73 High-angle rescue unit.
- 75 BLS unit.
- 76 ALS unit.
- 70 Medical and rescue unit, other.

Other

- 91 Mobile command post.
- 92 Chief officer car.
- 93 HazMat unit.
- 94 Type I hand crew.
- 95 Type II hand crew.
- 99 Privately owned vehicle.
- 00 Other apparatus or resources.
- NN None.
- UU Undetermined.

Dates and Times

All dates and time are entered as numerals. For time of day, the 24-hour clock is used. (Midnight is 0000.)

Dispatch Time

Definition

The actual month, day, year, and time of day when this unit was dispatched by the communications center. This is not an elapsed time.

Purpose

The time when a unit is dispatched is valuable because it allows fire department management to calculate the time it took from dispatch to arrival of the apparatus or resource on the incident scene. This information is useful in determining response times for specific apparatus, stations, or districts.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the unit was dispatched. If the Dispatch date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box and enter the time the unit was dispatched.

Example

The call was dispatched at 5:39 p.m. on May 15, 2002, which was the same date as the Alarm date. The respondent elected to enter the date rather than check the box:

| Dates and Times | | | | | Midnight is 0000 |
|-----------------|---|-----|------|----------|------------------|
| | <input type="checkbox"/> Check if same date as alarm date | | | | |
| | Month | Day | Year | Hour/Min | |
| Dispatch | <input type="checkbox"/> | 0,5 | 1,5 | 2,0,0,2 | 1,7,3,9 |
| Arrival | <input type="checkbox"/> | | | | |
| Clear | <input type="checkbox"/> | | | | |

Arrival Time*Definition*

The actual month, day, year, and time of day when this unit arrived at the incident scene. This is not an elapsed time.

Purpose

The time when a specific unit arrives at the scene is valuable to fire department management because it reflects the actual time spent traveling to the scene of the incident for that type of apparatus or resource. This information is useful in determining response times for specific apparatus, stations, or districts.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the fire department unit arrived on the scene. If the Arrival date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box and enter the time the unit arrived.

Example

Engine 13 arrived at the scene at 5:42 p.m. on May 15, 2002:

| Dates and Times | | | | |
|-----------------|-------------------------------------|-----|------|-------------------|
| | Month | Day | Year | Hours/Mins |
| Dispatch | <input type="checkbox"/> | 0,5 | 1,5 | 2,0,0,2 1,7,3,9 |
| Arrival | <input checked="" type="checkbox"/> | | | 1,7,4,2 |
| Clear | <input type="checkbox"/> | | | |

Clear Time*Definition*

The actual month, day, year, and time of day when this unit is cleared from the incident and is available for new duty.

- Usually, the Clear time represents when the apparatus or resources are cleared from the scene. In the case of transport of a casualty, however, the Clear time is when the apparatus completes the transport and is available for new duty.

Purpose

The time when the resources or apparatus are cleared is valuable to fire department management because it reflects the time spent stabilizing the incident. This assists in determining service demand and costs for resource allocation.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the units cleared the incident and are available for reassignment. If the Clear date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box and enter the time that the unit is cleared from the incident.

Example

Engine 13 cleared the scene and was available for reassignment at 1:12 a.m. on May 16, 2002:

| Dates and Times | | | | |
|---|-------------------------------------|-----|------|-------------------|
| | | | | Midnight is 0000 |
| Check if same date as alarm date on the basic module (Block E1) | | | | |
| | Month | Day | Year | Hour/Min |
| Dispatch | <input type="checkbox"/> | 0,5 | 1,5 | 2,0,0,2 1,7 3,9 |
| Arrival | <input checked="" type="checkbox"/> | | | 1,7 4,2 |
| Clear | <input type="checkbox"/> | 0,5 | 1,6 | 2,0,0,2 0,1 1,2 |

Sent

Definition

Indicates which apparatus was sent on the incident. Fire departments can pre-print or pre-enter apparatus in this module. When an incident occurs, the firefighter completing the module can check or mark the Sent box to indicate which apparatus in the module actually responded.

Purpose

Fire departments can pre-print or pre-enter apparatus in the module.

Entry

Check or mark the Sent box if the apparatus responded to the incident.

Example

The apparatus was sent on the call:

| |
|-------------------------------------|
| Sent |
| <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> |

Number of People ☆

Definition

The number of emergency personnel on the apparatus.

Purpose

This assists in determining personnel demands for different types of incidents and staffing requirements for apparatus.

Entry

Enter the number of personnel on the apparatus.

Example

Five personnel rode the squad:

| |
|--------------------------|
| Number of ☆ People |
| 5 |

Apparatus or Resources Use ☆

Definition

The main use of the apparatus or resource at the incident.

Purpose

This information is useful in determining actual personnel and apparatus requirements for different types of incidents and for different levels of incident severity.

Entry

Check or mark the box that best describes the primary use of the apparatus or resource at the incident.

☛ Chief officer vehicles and privately owned vehicles should be classified as Other.

Example

The engine and its personnel were responsible for suppression activities:

| | |
|--|-------------|
| Apparatus Use ☆ | |
| Check ONE box for each apparatus to indicate its main use at the incident. | |
| <input checked="" type="checkbox"/> | Suppression |
| <input type="checkbox"/> | EMS |
| <input type="checkbox"/> | Other |

APPARATUS USE CODES

- | | |
|---|----------------------|
| 1 | Suppression. |
| 2 | EMS. |
| 0 | Other. Actions Taken |

Actions Taken

Definition

The duties performed at the incident scene by the apparatus or resource personnel.

Purpose

This data element, together with Incident Type on the Basic Module (Section C), enables a fire department to document the breadth of activities and the resources required by the responding fire department to effectively handle the range of emergency situations. This information also provides some indication on the specific types of service required of the fire department.

Entry

Enter the two-digit code(s) for up to four actions taken by the specific piece of apparatus or resource at the scene of the incident. Always report the most significant actions taken before less significant actions taken. Specific actions may include extinguishing fires, forcible entry, providing first aid, identifying and analyzing hazardous materials, and transporting the injured. The action may involve simply standing by at an incident for possible service. Be as specific as possible in stating the actions taken.

Example

The truck company ventilated the roof (51), forced entry (52), and overhauled the fire scene (12):

| Actions Taken | | | |
|---|---|---|---|
| List up to 4 actions for each apparatus | | | |
| 5 | 1 | 5 | 2 |
| 1 | 2 | | |

ACTIONS TAKEN CODES

Fire Control or Extinguishment

- 11 Extinguishment by fire service personnel.
- 12 Salvage and overhaul.
- 13 Establish fire lines around wildfire perimeter. Includes clearing firebreaks using direct, indirect, and burnout tactics as appropriate.
- 14 Contain fire (wildland). Includes taking suppression action that can reasonably be expected to check the fire spread under prevailing and predicted conditions.
- 15 Confine fire (wildland). Includes when fire crews or resources stop the forward progress of a fire but have not put in all control lines.
- 16 Control fire (wildland). Includes when fire crews or resources completely surround the fire perimeter with control lines; extinguish any spot fires; burn any area adjacent to the fire side of the control lines; and cool down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under foreseeable conditions.
- 17 Manage prescribed fire (wildland).
- 10 Fire control or extinguishment, other.

Search and Rescue

- 21 Search for lost or missing person. Includes animals.
- 22 Rescue, remove from harm. Excludes vehicle extrication (23).
- 23 Extrication or disentangling of a person. Excludes body recovery (24).
- 24 Recover body or body parts.
- 20 Search and rescue, other.

EMS and Transport

- 31 Provide first aid and check for injuries. Medical evaluation of patient.
- 32 Provide basic life support (BLS).
- 33 Provide advanced life support (ALS).
- 34 Transport of person from scene in fire service ambulance or apparatus.
- 30 Emergency medical services, other.

Hazardous Condition

- 41 Identification, analysis of hazardous materials.
- 42 Hazardous materials detection, monitoring, sampling, and analyzing using a variety of detection instruments including combustible gas indicators (CGIs) or explosimeter, oxygen monitors, colorimetric tubes, specific chemical monitors, and others. Results from these devices must be analyzed to provide information about the hazardous nature of the material or environment.
- 43 Hazardous materials spill control and confinement. Includes confining or diking hazardous materials. These are actions taken to confine the product released to a limited area including the use of absorbents, damming/diking, diversion of liquid runoff, dispersion, retention, or vapor suppression.
- 44 Hazardous materials leak control and containment. Includes actions taken to keep a material within its container, such as plugging/patching operations, neutralization, pressure isolation/reduction, solidification, and vacuuming.
- 45 Remove hazard. Includes neutralizing a hazardous condition.
- 46 Decontaminate persons or equipment. Includes actions taken to prevent the spread of contaminants from the “hot zone” to the “cold zone.” This includes gross, technical, or advanced personal decontamination of victims, emergency responders, and equipment.
- 47 Decontamination of occupancy or area exposed to hazardous materials.
- 48 Remove hazardous materials. Includes a broad range of actions taken to remove hazardous materials from a damaged container or contaminated area. Examples of actions to remove hazards include product offload/transfer, controlled burning or product flaring, venting, and overpacking.
- 40 Hazardous condition, other.

Fires, Rescues, and Hazardous Conditions

- 51 Ventilate. Includes nonhazardous odor removal and removal of smoke from nonhazardous materials-related fires.
- 52 Forcible entry, performed by fire service. Includes support to law enforcement.
- 53 Evacuate area. Removal of civilians from an area determined to be hazardous. Includes actions taken to isolate the contaminated area and/or evacuate those persons affected by a hazardous materials release or potential release.
- 54 Determine if the materials released are nonhazardous through product identification and environmental monitoring.
- 55 Establish safe area. Includes isolating the area affected by denying entry to unprotected persons and establishing hazard control zones (hot, warm, cold).
- 56 Provide air supply.
- 57 Provide light or electrical power.
- 58 Operate apparatus or vehicle.
- 50 Fires, rescues, and hazardous conditions, other.

Systems and Services

- 61 Restore municipal services. Includes turning water back on and notifying the gas company to turn the gas on.
- 62 Restore sprinkler or fire protection system.
- 63 Restore fire alarm system. Includes restoring fire alarm systems monitored by the fire service.
- 64 Shut down system. Includes shutting down water, gas, and fire alarm systems.

- 65 Secure property. Includes property conservation activities such as covering broken windows or holes in roofs.
- 66 Remove water or control flooding condition.
- 60 Systems and services, other.

Assistance

- 71 Assist physically disabled. Includes providing nonmedical assistance to physically disabled, handicapped, or elderly citizens.
- 72 Assist animal. Includes animal rescue, extrication, removal, or transport.
- 73 Provide manpower. Includes providing manpower to assist rescue/ambulance units lift patients or providing manpower to assist police.
- 74 Provide apparatus.
- 75 Provide equipment, where equipment is used by another agency.
- 76 Provide water. Includes tanker shuttle operations and pumping in a relay or from a water source. Excludes normal fire suppression operations.
- 77 Control crowd. Includes restricting pedestrian access to an area. Excludes control of vehicles (78).
- 78 Control traffic. Includes setting up barricades and directing traffic.
- 79 Assess damage from severe weather or the results of a natural disaster.
- 70 Assistance, other.

Information, Investigation, and Enforcement

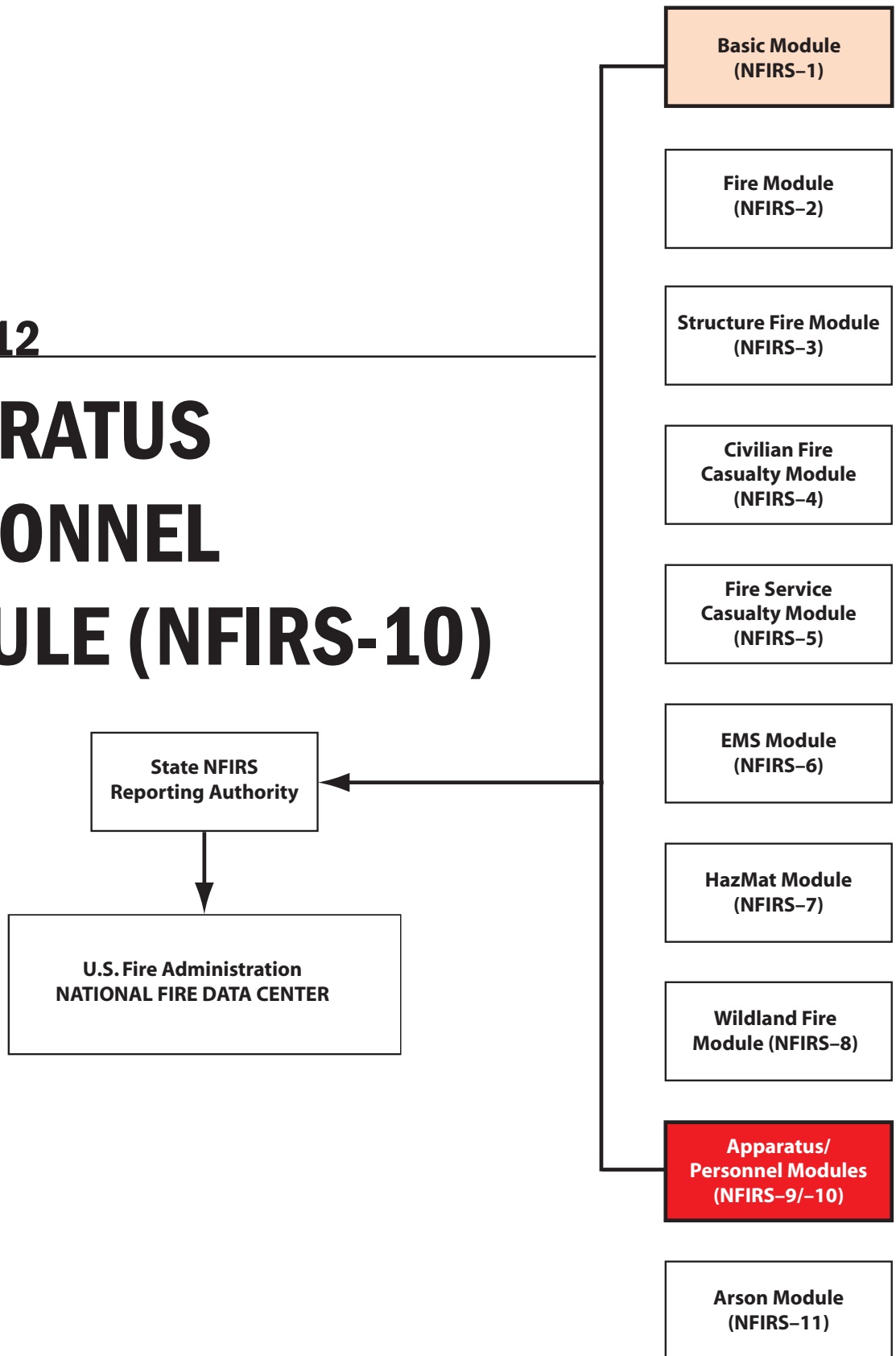
- 81 Incident command. Includes providing support to incident command activities.
- 82 Notify other agencies. Includes notifications of utility companies, property owners, and the like.
- 83 Provide information to the public or media.
- 84 Refer to proper authority. Includes turnover of incidents to other authorities or agencies such as the police.
- 85 Enforce fire code and other codes. Includes response to public complaints and abatement of code violations.
- 86 Investigate. Includes investigations done on arrival to determine the situation and post-incident investigations; and collecting incident information for incident reporting purposes.
- 80 Information, investigation, and enforcement, other.

Fill-in, Standby

- 90 Fill-in, standby, other.
- 91 Fill in, move up to another fire station.
- 92 Standby.
- 93 Canceled en route.
- 00 Action taken, other.

Chapter 12

APPARATUS PERSONNEL MODULE (NFIRS-10)



| | | | | | | | | |
|----------|---------------------------|----------------------------|---|------------------------------|--------------------------------------|-------------------------------|---------------------------------|-------------------------------|
| A | FDID <input type="text"/> | State <input type="text"/> | Incident Date <input type="text"/> MM <input type="text"/> DD <input type="text"/> YYYY | Station <input type="text"/> | Incident Number <input type="text"/> | Exposure <input type="text"/> | <input type="checkbox"/> Delete | NFIRS-10 Personnel |
| | | | | | | | <input type="checkbox"/> Change | |

| | | | | | | |
|----------|---|---|--|---|--|---|
| B | Apparatus or Resources ID <input type="text"/> Type <input type="text"/> | Dates and Times Check if same date as Alarm date on the Basic Module (Block E1). Month <input type="text"/> Day <input type="text"/> Year <input type="text"/> Hour/Min <input type="text"/> | Sent <input checked="" type="checkbox"/> | Number of People <input type="text"/> | Apparatus Use Check ONE box for each apparatus to indicate its main use at the incident. <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | Actions Taken List up to 4 actions for each apparatus and each personnel. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| | 1 ID <input type="text"/> Type <input type="text"/> | Dispatch <input type="checkbox"/> <input type="text"/> Arrival <input type="checkbox"/> <input type="text"/> Clear <input type="checkbox"/> <input type="text"/> | Sent <input type="checkbox"/> | <input type="text"/> | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |

| Personnel ID <input type="text"/> | Name | Rank or Grade | Attend <input checked="" type="checkbox"/> | Action Taken | Action Taken | Action Taken | Action Taken |
|-----------------------------------|------|---------------|--|--------------|--------------|--------------|--------------|
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |

| | | | | | |
|--|--|-------------------------------|----------------------|--|--|
| 2 ID <input type="text"/> Type <input type="text"/> | Dispatch <input type="checkbox"/> <input type="text"/> Arrival <input type="checkbox"/> <input type="text"/> Clear <input type="checkbox"/> <input type="text"/> | Sent <input type="checkbox"/> | <input type="text"/> | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
|--|--|-------------------------------|----------------------|--|--|

| Personnel ID <input type="text"/> | Name | Rank or Grade | Attend <input checked="" type="checkbox"/> | Action Taken | Action Taken | Action Taken | Action Taken |
|-----------------------------------|------|---------------|--|--------------|--------------|--------------|--------------|
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |

| | | | | | |
|--|--|-------------------------------|----------------------|--|--|
| 3 ID <input type="text"/> Type <input type="text"/> | Dispatch <input type="checkbox"/> <input type="text"/> Arrival <input type="checkbox"/> <input type="text"/> Clear <input type="checkbox"/> <input type="text"/> | Sent <input type="checkbox"/> | <input type="text"/> | <input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
|--|--|-------------------------------|----------------------|--|--|

| Personnel ID <input type="text"/> | Name | Rank or Grade | Attend <input checked="" type="checkbox"/> | Action Taken | Action Taken | Action Taken | Action Taken |
|-----------------------------------|------|---------------|--|--------------|--------------|--------------|--------------|
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |
| <input type="text"/> | | | <input type="checkbox"/> | | | | |

CHAPTER 12

PERSONNEL MODULE (NFIRS-10)

The Personnel Module (NFIRS-10) is an optional module that is used to help manage and track personnel and resources used on incidents.

- If only apparatus or resources need to be reported, use the Apparatus or Resources Module (NFIRS-9) instead of this module.

SECTION A

The guidance and directions for completing Section A of the Personnel Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Personnel Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same state abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

If this report is for an exposure fire, enter the same exposure number that was entered in Section A of the Basic Module for that exposure.

Delete/Change

Definition

Indicates a change to information submitted on a previous Personnel Module or a deletion of all information regarding the incident.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this Personnel Module and now want to have the data on this report deleted from the database. If this box is marked, complete Section A and the ID Number from Section B and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Apparatus or Resources Type ☆

Definition

The type and identification number for the apparatus or resources used at the incident.

- ☛ The apparatus Type field is a required field; complete the ID number of the resource or apparatus if appropriate.

Purpose

This information is useful in determining actual apparatus and personnel requirements for different types of incidents and for different levels of incident severity as well as for tracking times and actions taken by apparatus type and personnel.

Entry

Enter the identification number for each apparatus or resource used at the incident and the two-digit code for the type of apparatus or resource. If more than three apparatus or resources were used, complete an additional NFIRS-10 module.

- Individual fire departments often assign a unique number to each piece of apparatus in the department.

Example

An engine (11) responded to the incident. Its assigned identification number is 12547:

| | | |
|----------|------------------------------|-----------|
| B | Apparatus or Resource | ☆ |
| 1 | ID | 1,2,5,4,7 |
| | Type | 1,1 |

APPARATUS OR RESOURCE TYPE CODES

Ground Fire Suppression

- 11 Engine.
- 12 Truck or aerial.
- 13 Quint.
- 14 Tanker and pumper combination.
- 16 Brush truck.
- 17 ARFF (aircraft rescue and firefighting).
- 10 Ground fire suppression, other.

Heavy Ground Equipment

- 21 Dozer or plow.
- 22 Tractor.
- 24 Tanker or tender.
- 20 Heavy ground equipment, other.

Aircraft

- 41 Aircraft, fixed-wing tanker.
- 42 Helitanker.
- 43 Helicopter.
- 40 Aircraft, other.

Marine Equipment

- 51 Fire boat with pump.
- 52 Boat, no pump.
- 50 Marine equipment, other.

Support Equipment

- 61 Breathing apparatus support.
- 62 Light and air unit.
- 60 Support apparatus, other.

Medical and Rescue Unit

- 71 Rescue unit.
- 72 Urban search and rescue unit.
- 73 High-angle rescue unit.
- 75 BLS unit.
- 76 ALS unit.
- 70 Medical and rescue unit, other.

Other

- 91 Mobile command post.
- 92 Chief officer car.
- 93 HazMat unit.
- 94 Type I hand crew.
- 95 Type II hand crew.
- 99 Privately owned vehicle.
- 00 Other apparatus or resources.
- NN None.
- UU Undetermined.

Dates and Times

All dates and time are entered as numerals. For time of day, the 24-hour clock is used. (Midnight is 0000.)

Dispatch Time

Definition

The actual month, day, year, and time of day when this unit was dispatched by the communications center. This is not an elapsed time.

Purpose


The time when a unit is dispatched is valuable because it allows fire department management to calculate the time it took from dispatch to arrival of the apparatus or resource on the incident scene. This information is useful in determining response times for specific apparatus, stations, or districts.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the unit was dispatched. If the Dispatch date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box.

Example

The call was dispatched at 5:39 p.m. on May 15, 2002, the same date as the Alarm date:

| Dates and Times | | Midnight is 0000 | | | |
|-----------------|---|---|-----|------|------------|
| |  | Check if same date as alarm date on the Basic Module (Block E1) | | | |
| | | Month | Day | Year | Hour/Min |
| Dispatch | <input checked="" type="checkbox"/> | | | | 1, 7, 3, 9 |
| Arrival | <input type="checkbox"/> | | | | |
| Clear | <input type="checkbox"/> | | | | |

Arrival Time

Definition

The actual month, day, year, and time of day when this unit arrived at the incident scene. This is not an elapsed time.

Purpose

The time when a specific unit arrives at the scene is valuable to fire department management because it reflects the actual time spent traveling to the scene of the incident for that type of apparatus or resource. This information is useful in determining response times for specific apparatus, stations, or districts.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the fire department unit arrived on the scene. If the Arrival date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box and enter the time the unit arrived.

Example

Engine 13 arrived at the scene at 5:42 p.m. on May 15, 2002:

| Dates and Times | | Midnight is 0000 | | | |
|-----------------|-------------------------------------|------------------|-----|------|----------|
| | <input checked="" type="checkbox"/> | Month | Day | Year | Hour/Min |
| Dispatch | <input checked="" type="checkbox"/> | | | | 1,7,3,9 |
| Arrival | <input checked="" type="checkbox"/> | | | | 1,7,4,2 |
| Clear | <input type="checkbox"/> | | | | |

Clear Time

Definition

The actual month, day, year, and time of day when this unit is cleared from the incident and is available for new duty.

- ☛ Usually, the Clear time represents when the apparatus or resources are cleared from the scene. In the case of transport of a casualty, however, the Clear time is when the apparatus completes the transport and is available for new duty.

Purpose

The time when the resources or apparatus are cleared is valuable to fire department management because it reflects the time spent stabilizing the incident. This assists in determining service demand and costs for resource allocation.

Entry

Enter the month, day, year (mm/dd/yyyy), and time that the units cleared the incident and are available for reassignment. If the Clear date is the same as the Alarm date on the Basic Module (Block E1), check or mark the corresponding box and enter the time that the unit is cleared from the incident.

Example

Engine 13 cleared the scene and was available for reassignment at 7:30 p.m. on May 15, 2002:

| Dates and Times | | Midnight is 0000 | | | |
|-----------------|-------------------------------------|---|-----|------|----------|
| | <input type="checkbox"/> | Check if same date as alarm date on the Basic Module (Block E1) | | | |
| | | Month | Day | Year | Hour/Min |
| Dispatch | <input checked="" type="checkbox"/> | | | | 1,7,30 |
| Arrival | <input checked="" type="checkbox"/> | | | | 1,7,42 |
| Clear | <input checked="" type="checkbox"/> | | | | 1,9,30 |

Sent

Definition

Indicates which apparatus was sent on the incident. Fire departments can pre-print or pre-enter apparatus in this module. When an incident occurs, the firefighter completing the module can check or mark the Sent box to indicate which apparatus in the module actually responded.

Purpose

Fire departments can pre-print or pre-enter apparatus in the module.

Entry

Check or mark the Sent box if the apparatus responded to the incident.

Example

The apparatus was sent on the call:

| |
|-------------------------------------|
| Sent |
| <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> |

Number of People ☆

Definition

The number of emergency personnel on the apparatus.

Purpose

This assists in determining personnel demands for different types of incidents and staffing requirements for apparatus.

Actions Taken

Definition

The duties performed at the incident scene by the apparatus or resource personnel.

Purpose

This data element, together with Incident Type on the Basic Module (Section C), enables a fire department to document the breadth of activities and the resources required by the responding fire department to effectively handle the range of emergency situations. This information also provides some indication on the specific types of service required of the fire department.

Entry

Enter the two-digit code(s) for up to four actions taken by the specific piece of apparatus or resource at the scene of the incident. Always report the most significant actions taken before less significant actions taken. Specific actions may include extinguishing fires, forcible entry, providing first aid, identifying and analyzing hazardous materials, and transporting the injured. The action may involve simply standing by at an incident for possible service. Be as specific as possible in stating the actions taken.

Example

The truck company ventilated the roof (51), forced entry (52), and overhauled the fire scene (12):

| Actions Taken | |
|---|-----|
| List up to 4 actions for each apparatus and each personnel. | |
| 5,1 | 5,2 |
| 1,2 | |

ACTIONS TAKEN CODES

Fire Control or Extinguishment

- 11 Extinguishment by fire service personnel.
- 12 Salvage and overhaul.
- 13 Establish fire lines around wildfire perimeter. Includes clearing firebreaks using direct, indirect, and burnout tactics as appropriate.
- 14 Contain fire (wildland). Includes taking suppression action that can reasonably be expected to check the fire spread under prevailing and predicted conditions.
- 15 Confine fire (wildland). Includes when fire crews or resources stop the forward progress of a fire but have not put in all control lines.
- 16 Control fire (wildland). Includes when fire crews or resources completely surround the fire perimeter with control lines; extinguish any spot fires; burn any area adjacent to the fire side of the control lines; and cool down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under foreseeable conditions.
- 17 Manage prescribed fire (wildland).
- 10 Fire control or extinguishment, other.

Search and Rescue

- 21 Search for lost or missing persons. Includes animals.
- 22 Rescue, remove from harm. Excludes vehicle extrication (23).
- 23 Extrication or disentangling of a person. Excludes body recovery (24).
- 24 Recover body or body parts.
- 20 Search and rescue, other.

EMS and Transport

- 31 Provide first aid and check for injuries. Medical evaluation of patient.
- 32 Provide basic life support (BLS).
- 33 Provide advanced life support (ALS).
- 34 Transport of person from scene in fire service ambulance or apparatus.
- 30 Emergency medical services, other.

Hazardous Condition

- 41 Identification, analysis of hazardous materials.
- 42 Hazardous materials detection, monitoring, sampling, and analyzing using a variety of detection instruments including combustible gas indicators (CGIs) or explosimeter, oxygen monitors, colorimetric tubes, specific chemical monitors, and others. Results from these devices must be analyzed to provide information about the hazardous nature of the material or environment.
- 43 Hazardous materials spill control and confinement. Includes confining or diking hazardous materials. These are actions taken to confine the product released to a limited area including the use of absorbents, damming/diking, diversion of liquid runoff, dispersion, retention, or vapor suppression.
- 44 Hazardous materials leak control and containment. Includes actions taken to keep a material within its container, such as plugging/patching operations, neutralization, pressure isolation/reduction, solidification, and vacuuming.
- 45 Remove hazard. Includes neutralizing a hazardous condition.
- 46 Decontaminate persons or equipment. Includes actions taken to prevent the spread of contaminants from the “hot zone” to the “cold zone.” This includes gross, technical, or advanced personal decontamination of victims, emergency responders, and equipment.
- 47 Decontamination of occupancy or area exposed to hazardous materials.
- 48 Remove hazardous materials. Includes a broad range of actions taken to remove hazardous materials from a damaged container or contaminated area. Examples of actions to remove hazards include product offload/transfer, controlled burning or product flaring, venting, and overpacking.
- 40 Hazardous condition, other.

Fires, Rescues, and Hazardous Conditions

- 51 Ventilate. Includes nonhazardous odor removal and removal of smoke from nonhazardous materials-related fires.
- 52 Forcible entry, performed by fire service. Includes support to law enforcement.
- 53 Evacuate area. Removal of civilians from an area determined to be hazardous. Includes actions taken to isolate the contaminated area and/or evacuate those persons affected by a hazardous materials release or potential release.
- 54 Determine if the materials released are nonhazardous through product identification and environmental monitoring.
- 55 Establish safe area. Includes isolating the area affected by denying entry to unprotected persons and establishing hazard control zones (hot, warm, cold).
- 56 Provide air supply.
- 57 Provide light or electrical power.
- 58 Operate apparatus or vehicle.
- 50 Fires, rescues, and hazardous conditions, other.

Systems and Services

- 61 Restore municipal services. Includes turning water back on and notifying the gas company to turn the gas on.
- 62 Restore sprinkler or fire protection system.

- 63 Restore fire alarm system. Includes restoring fire alarm systems monitored by the fire service.
- 64 Shut down system. Includes shutting down water, gas, and fire alarm systems.
- 65 Secure property. Includes property conservation activities such as covering broken windows or holes in roofs.
- 66 Remove water or control flooding condition.
- 60 Systems and services, other.

Assistance

- 71 Assist physically disabled. Includes providing nonmedical assistance to physically disabled, handicapped, or elderly citizens.
- 72 Assist animal. Includes animal rescue, extrication, removal, or transport.
- 73 Provide manpower. Includes providing manpower to assist rescue/ambulance units lift patients or providing manpower to assist police.
- 74 Provide apparatus.
- 75 Provide equipment, where equipment is used by another agency.
- 76 Provide water. Includes tanker shuttle operations and pumping in a relay or from a water source. Excludes normal fire suppression operations.
- 77 Control crowd. Includes restricting pedestrian access to an area. Excludes control of vehicles (78).
- 78 Control traffic. Includes setting up barricades and directing traffic.
- 79 Assess damage from severe weather or the results of a natural disaster.
- 70 Assistance, other.

Information, Investigation, and Enforcement

- 81 Incident command. Includes providing support to incident command activities.
- 82 Notify other agencies. Includes notifications of utility companies, property owners, and the like.
- 83 Provide information to the public or media.
- 84 Refer to proper authority. Includes turnover of incidents to other authorities or agencies such as the police.
- 85 Enforce fire code and other codes. Includes response to public complaints and abatement of code violations.
- 86 Investigate. Includes investigations done on arrival to determine the situation and post-incident investigations; and collecting incident information for incident reporting purposes.
- 80 Information, investigation, and enforcement, other.

Fill-in, Standby

- 91 Fill in, move up to another fire station.
- 92 Standby.
- 93 Canceled en route.
- 00 Action taken, other.
- 90 Fill-in, standby, other.

Personnel ID ☆, Name, and Rank

Definition

The personnel identification number assigned to each emergency responder and name and rank. The ID number is often the social security number, but it may be any combination of letters and numbers up to nine characters.

Purpose

This information is useful for identifying personnel on specific pieces of apparatus, their level of responsibility, and the actions that they took at the incident.

Entry

Enter the responder's ID number, name, and rank (left-justify).

- Individual fire departments often assign a unique number to each employee in the department.

Example

Firefighter Doug Kane, ID A23-4567 responded to the incident:

| Personnel ID ☆ | Name | Rank or Grade |
|--------------------------|-----------|---------------|
| A, 2, 3, 4, 5, 6, 7, , , | Doug Kane | Firefighter |

Attend

Definition

Indicates which personnel were on the apparatus sent to the incident. Fire departments can pre-print or pre-enter the names of personnel in this module. When an incident occurs, the firefighter completing the module can check or mark the Attend box to indicate which personnel on the apparatus actually responded.

Purpose

Fire departments can pre-print or pre-enter personnel in the module.

Entry

Check or mark the Attend box if the person responded to the incident.

Example

Firefighter Doug Kane responded to the incident:

| |
|-------------------------------------|
| Attend |
| <input type="checkbox"/> |
| <input checked="" type="checkbox"/> |

Actions Taken

Definition

The duties performed at the incident scene by the individual responder.

Purpose

This data element documents the range of activities required by the responding emergency personnel to effectively handle the range of emergency situations.

Entry

Enter the two-digit code(s) for up to four actions taken by the individual responder at the scene of the incident. Always report the most significant actions taken before less significant actions taken. Specific actions may include extinguishing fires, forcible entry, providing first aid, identifying and analyzing hazardous materials, and transporting the injured. The action may involve simply standing by at an incident for possible service. Be as specific as possible in stating the actions taken.

☛ Actions Taken codes are listed on page 12–10 of this chapter.

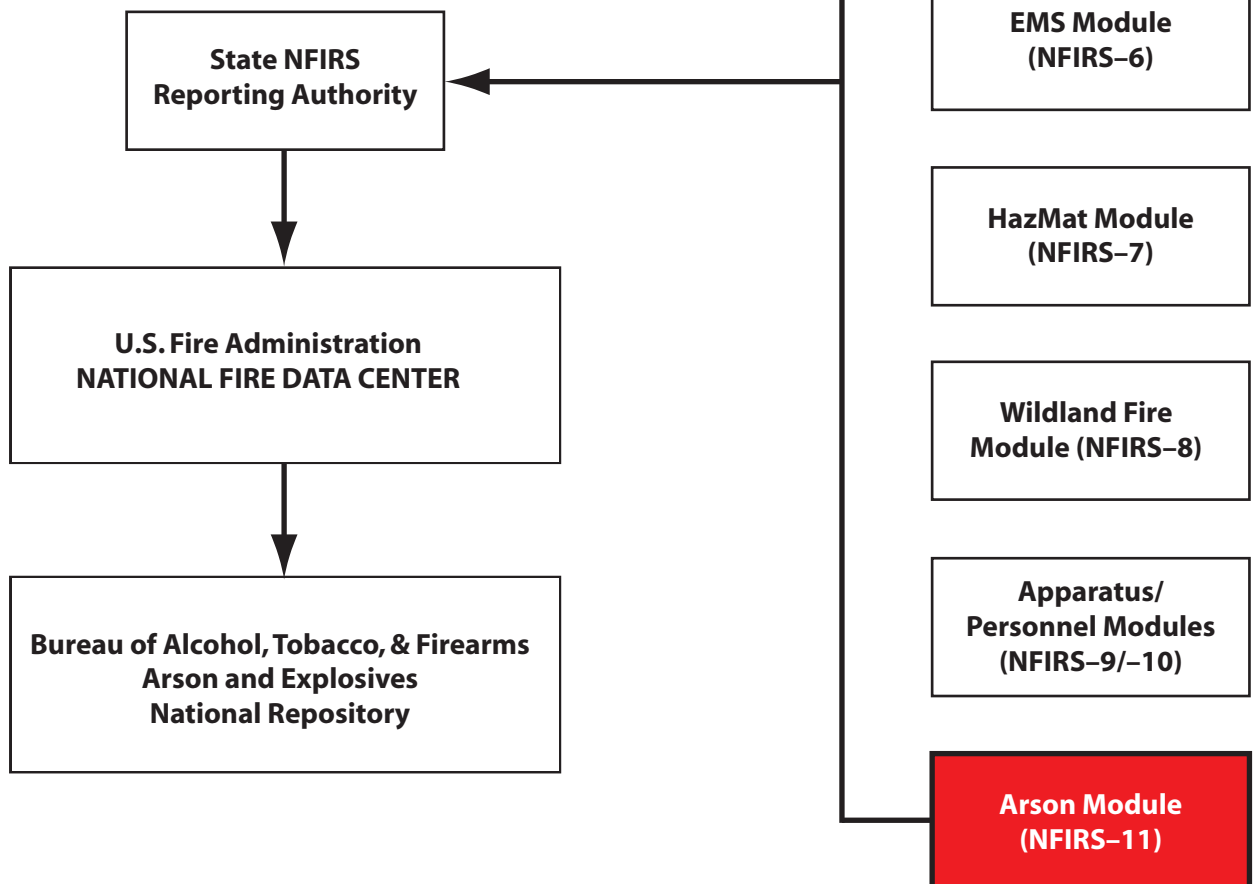
Example

Firefighter Doug Kane assisted with ventilating the roof (51) and overhauling the fire scene (12):

| Action Taken | Action Taken | Action Taken | Action Taken |
|--------------|--------------|--------------|--------------|
| 51 | 12 | | |

Chapter 13

ARSON MODULE (NFIRS-11)



CHAPTER 13

ARSON MODULE (NFIRS-11)

An indispensable tool in the war against arson is the ability to identify with precision when and where the crime takes place, what form it takes, and the characteristics of its targets and perpetrators. Armed with such information, fire service and law enforcement agencies can develop and implement arson prevention initiatives that will allow them to use their resources in the most efficient and effective manner. The NFIRS 5.0 Arson Module (NFIRS-11) was developed with this goal in mind.

Arson: To unlawfully and intentionally damage, or attempt to damage, any real or personal property by fire or incendiary device.

This optional Arson Module may be used whenever the Cause of Ignition (Fire Module, Block E1) is coded as Intentional or as Cause Under Investigation without any distinction made as to whether a crime has occurred or a determination of criminal intent. The Arson Module may also be used when the fire is coded as Cause Undetermined After Investigation.

The Arson Module may also be used to document juvenile-set fires, whether determined to be intentional, unintentional, or under investigation. This information will permit analysis of juvenile firesetting trends, including intervention strategies and recidivism.

☛ Juvenile-set fires are defined to be those fires where the person involved in the ignition is under the age of 18.

The Arson Module consists of two parts: a local investigation module that permits a fire department or arson investigation unit to document certain details concerning the incident; and a juvenile firesetter section that identifies key items of information that could be used for local, State, and national intervention programs.

Many arson investigation units use an arson information management system to collect and compile information on arson incidents. This module is not intended to replace such systems; instead, it identifies those data elements that could be exported to NFIRS and included as an integral part of the U.S. Fire Administration National Fire Database and the Bureau of Alcohol, Tobacco and Firearms (BATF), Arson and Explosives National Repository.

SECTION A

The guidance and directions for completing Section A of the Arson Module are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Arson Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆*Entry*

Enter the same FDID number found in Section A of the Basic Module.

State ☆*Entry*

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆*Entry*

Enter the same incident date found in Section A of the Basic Module.

Station Number*Entry*

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆*Entry*

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆*Entry*

Enter the same exposure number found in Section A of the Basic Module.

Delete/Change*Definition*

Indicates a change to information submitted on a previous Arson Module or a deletion of all information regarding the incident.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted data on this arson incident and now want to have the data on this report deleted from the database. If this box is marked, complete Section A and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted this fire incident to your State reporting authority and now want to update or change the information in the State database. Complete Section A and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION B

B Agency Referred To

Definition

Identifies the agency, if any, the incident was referred to for follow-up investigation. This might be a law enforcement agency that has jurisdiction for a criminal investigation or another fire department that may have been requested to conduct the investigation.

Purpose

This element provides the details necessary to contact the agency that conducted any follow-up of the incident. It also allows for the collection, compilation, and analysis of all data associated with a specific incident.

Entry

Enter the referred agency's name, telephone number, address, case number, Originating Agency Identifier (ORI) number, Federal Identifier (FID) code, and FDID (if applicable). Check or mark the None box if the case was not referred to another agency.

ORI: A unique identification number assigned to law enforcement agencies (towns, cities, counties, State police agencies, and some colleges and universities) participating in the FBI's Uniform Crime Reporting (UCR) system or the National Incident-Based Reporting System (NIBRS).

FID: A two-character identification number used by Federal departments to submit crime data to UCR/NIBRS gathered by its dependent bureau/agencies.

Collectively, the ORI, FID, and Incident numbers provide the necessary uniqueness to avoid duplication of reported incidents.

☛ "00" is used for State and local agencies as the FID codes. Federal departments such as the FBI use an assigned FID code. This list is not provided in this guide.

Also enter the complete address of the agency the incident was referred to for follow-up investigation. (Street prefixes, types, and suffixes are listed in Chapter 3, pages 13–16.)

Example

The case was referred to the BATF – 703–555–8976, 11234 Lee Highway, Fairfax, VA 20145, Case Number 19002021997, ORI 234568, FID 26:

| | | | | | | |
|-----------------------------|-----------------|-------------------------------|---------------------------------------|---------|---|--|
| B Agency Referred To | | <input type="checkbox"/> None | Bureau of Alcohol, Tobacco & Firearms | | 1 9 0 0 2 0 2 1 9 9 7 | |
| | | | Agency name | | Their case number | |
| 11234 | | Lee | H W Y | | 2 3 4 5 6 8 | |
| Number | Prefix | Street or Highway | Street Type | | Suffix | |
| Post Office Box | | Apt./Suite/Room | Fairfax | | City | |
| | | | | | Their Federal Identifier (FID) | |
| VA | 2 0 1 4 5 | | 7 0 3 | 5 5 5 | 8 9 7 6 | |
| State | ZIP Code | | Agency phone number | | Their FDID | |

SECTION C

C Case Status

Definition

The current status of the investigation.

Purpose

This data element identifies the status of the investigation at the time the report was filed. This information is useful in tracking the closure rate of an investigation as well as providing information to other agencies concerning the status of cases that may be linked to cases they are investigating.

Entry

Check or mark the box that best describes the status of the investigation at this time.

Example

The case is closed with an arrest (4):

| | |
|----------|--|
| C | Case Status |
| 1 | <input type="checkbox"/> Investigation open |
| 2 | <input type="checkbox"/> Investigation closed |
| 3 | <input type="checkbox"/> Investigation inactive |
| 4 | <input checked="" type="checkbox"/> Closed with arrest |
| 5 | <input type="checkbox"/> Closed with exceptional clearance |

CASE STATUS CODES

- 1 Investigation open.
- 2 Investigation closed.
- 3 Investigation inactive.
- 4 Investigation closed with arrest.
- 5 Closed with exceptional clearance.

SECTION D

D Availability of Material First Ignited*Definition*

Identifies the availability of an ignition source (including matches and lighters) to the subject.

Purpose

Understanding firesetting methods and trends can assist in the development of prevention and intervention strategies.

Entry

Check or mark the box that best describes the availability of the material first ignited.

Example

Matches were brought to the scene (1) by the subject:

| | |
|----------|--|
| D | Availability of Material First Ignited |
| 1 | <input checked="" type="checkbox"/> Transported to scene |
| 2 | <input type="checkbox"/> Available at scene |
| U | <input type="checkbox"/> Unknown |

AVAILABILITY OF MATERIAL FIRST IGNITED CODES

- | | |
|---|-----------------------|
| 1 | Transported to scene. |
| 2 | Available at scene. |
| U | Unknown. |

SECTION E

E Suspected Motivation Factors*Definition*

Indicates the suspected stimulus that caused the subject(s) to burn any real or personal property.

Purpose

An analysis of arson trends may be based on the possible motivation for the crime.

Entry

Check or mark up to three boxes that best indicate the factors or conditions that constituted possible motivations for the subject.

Example

The suspect burned down the home of his former employer who had fired him (21):

| E Suspected Motivation Factors | | Check up to three factors | | | | | |
|--------------------------------|--|---------------------------|--|----|---|----|---|
| 11 | <input type="checkbox"/> Extortion | 21 | <input checked="" type="checkbox"/> Personal | 42 | <input type="checkbox"/> Vanity/Recognition | 54 | <input type="checkbox"/> Burglary |
| 12 | <input type="checkbox"/> Labor unrest | 22 | <input type="checkbox"/> Hate crime | 43 | <input type="checkbox"/> Thrills | 61 | <input type="checkbox"/> Homicide concealment |
| 13 | <input type="checkbox"/> Insurance fraud | 23 | <input type="checkbox"/> Institutional | 44 | <input type="checkbox"/> Attention/Sympathy | 62 | <input type="checkbox"/> Burglary concealment |
| 14 | <input type="checkbox"/> Intimidation | 24 | <input type="checkbox"/> Societal | 45 | <input type="checkbox"/> Sexual excitement | 63 | <input type="checkbox"/> Auto theft concealment |
| 15 | <input type="checkbox"/> Void contract/lease | 31 | <input type="checkbox"/> Protest | 51 | <input type="checkbox"/> Homicide | 64 | <input type="checkbox"/> Destroy records/evidence |
| 16 | <input type="checkbox"/> Foreclosed property | 32 | <input type="checkbox"/> Civil unrest | 52 | <input type="checkbox"/> Suicide | 00 | <input type="checkbox"/> Other suspected motivation |
| | | 41 | <input type="checkbox"/> Fireplay/Curiosity | 53 | <input type="checkbox"/> Domestic violence | UU | <input type="checkbox"/> Unknown motivation |

SUSPECTED MOTIVATION FACTORS CODES

- 11 Extortion.
- 12 Labor unrest.
- 13 Insurance fraud.
- 14 Intimidation.
- 15 Void contract/lease.
- 16 Foreclosed property.
- 21 Personal.
- 22 Hate crime.
- 23 Institutional.
- 24 Societal.
- 31 Protest.
- 32 Civil unrest.
- 41 Fireplay/Curiosity.
- 42 Vanity/Recognition.
- 43 Thrills.
- 44 Attention/Sympathy.
- 45 Sexual excitement.
- 51 Homicide.
- 52 Suicide.
- 53 Domestic violence.
- 54 Burglary.
- 61 Homicide concealment.
- 62 Burglary concealment.
- 63 Auto theft concealment.
- 64 Destroy records/evidence.
- 00 Other suspected motivation.
- UU Unknown.

SECTION F

Apparent Group Involvement

Definition

Indicates whether the subject was motivated to commit the arson act because of involvement in a larger group or organization or as a means to promote the cause of a larger group or organization.

Purpose

This information permits analysis of arson trends based on participation in criminal groups or organizations, and it provides possible links to other similar arson cases.

Entry

Check or mark up to three boxes that best indicate the subject's involvement in a larger group or organization. If no group or organization was involved, check or mark the None box.

Example

The suspect committed the crime as initiation into a gang (2):

| | | |
|----------|---|-------------------------------|
| F | Apparent Group Involvement | <input type="checkbox"/> None |
| | Check up to three factors | |
| 1 | <input type="checkbox"/> Terrorist group | |
| 2 | <input checked="" type="checkbox"/> Gang | |
| 3 | <input type="checkbox"/> Anti-government group | |
| 4 | <input type="checkbox"/> Outlaw motorcycle organization | |
| 5 | <input type="checkbox"/> Organized crime | |
| 6 | <input type="checkbox"/> Racial/Ethnic hate group | |
| 7 | <input type="checkbox"/> Religious hate group | |
| 8 | <input type="checkbox"/> Sexual preference hate group | |
| 0 | <input type="checkbox"/> Other criminal group | |
| U | <input type="checkbox"/> Unknown | |

APPARENT GROUP INVOLVEMENT CODES

| | |
|---|---------------------------------|
| 1 | Terrorist group. |
| 2 | Gang. |
| 3 | Anti-government group. |
| 4 | Outlaw motorcycle organization. |
| 5 | Organized crime. |
| 6 | Racial/Ethnic hate group. |
| 7 | Religious hate group. |
| 8 | Sexual preference hate group. |
| 0 | Other criminal group. |
| N | None. Acted alone. |
| U | Unknown. |

SECTION G

This section collects data on how entry was gained to the property and what conditions the fire department found on arrival at the scene.

G¹ Entry Method

Definition

Indicates how the subject gained access to the property.

Purpose

This data item can be used to track common methods of entry for later analysis and to link other cases.

Entry

Enter the two-digit code and description of the subject's method of entry to the property.

Example

The subject broke the window in the back of the warehouse (14):

| | |
|----------------------|---------------------|
| G₁ | Entry Method |
| 14 | Broken window |
| Entry Method | |

ENTRY METHOD CODES

| | |
|----|---------------------------|
| 11 | Door, open or unlocked. |
| 12 | Door, forced or broken. |
| 13 | Window, open or unlocked. |
| 14 | Window, forced or broken. |
| 15 | Gate, open or unlocked. |
| 16 | Gate, forced or broken. |
| 17 | Locks, pried. |
| 18 | Locks, cut. |
| 19 | Floor entry. |
| 21 | Vent. |
| 22 | Attic/Roof. |
| 23 | Key. |
| 24 | Help from inside. |
| 25 | Wall. |
| 26 | Crawl space. |
| 27 | Hid in/on premises. |
| 00 | Other entry method. |
| UU | Unknown. |

G² Extent of Fire Involvement on Arrival

Definition

Indicates the fire department's observation of the extent of the fire's involvement when they arrived at the incident scene.

Purpose

Case investigators can use this information to determine if arson is potentially involved in the fire and to measure the speed and the pattern of flame spread.

Entry

Enter the code and description for the extent of fire involvement on arrival at the incident scene.

Example

Flame and smoke were showing when the fire department arrived at the fire (3):

| | | |
|---|--|--|
| G₂ | Extent of Fire Involvement on Arrival | |
| | <input type="text" value="3"/> | <input type="text" value="Flame and Smoke showing"/> |
| <small>Extent of Fire Involvement</small> | | |

EXTENT OF FIRE INVOLVEMENT ON ARRIVAL CODES

- | | |
|---|----------------------------|
| 1 | No flame or smoke showing. |
| 2 | Smoke only showing. |
| 3 | Flame and smoke showing. |
| 4 | Fire through roof. |
| 5 | Fully involved. |

SECTION H

H Incendiary Devices

Definition

Identifies the methods, devices, and fuel that were used to burn or attempt to burn any real or personal property.

Purpose

This information is used to track common methods and devices for later analysis and linking of cases.

Entry

Check or mark one box only from each of the three categories as applicable. If no container, device, or fuel source was used, check the appropriate box(es).

Example

The suspect threw a molotov cocktail into the abandoned building (bottle (11) filled with gasoline (14) with a rag for an ignition device (11)):

Example on next page

| H Incendiary Devices Select one from each category | | |
|--|---|---|
| CONTAINER | | |
| <input type="checkbox"/> No container | | |
| 11 <input checked="" type="checkbox"/> Bottle (glass) | 14 <input type="checkbox"/> Pressurized container | 17 <input type="checkbox"/> Box |
| 12 <input type="checkbox"/> Bottle (plastic) | 15 <input type="checkbox"/> Can (not gas or fuel) | 00 <input type="checkbox"/> Other container |
| 13 <input type="checkbox"/> Jug | 16 <input type="checkbox"/> Gasoline or fuel can | UU <input type="checkbox"/> Unknown |
| IGNITION/DELAY DEVICE | | |
| <input type="checkbox"/> No device | | |
| 11 <input checked="" type="checkbox"/> Wick or fuse | 17 <input type="checkbox"/> Road flare/fuse | |
| 12 <input type="checkbox"/> Candle | 18 <input type="checkbox"/> Chemical component | |
| 13 <input type="checkbox"/> Cigarette and matchbook | 19 <input type="checkbox"/> Trailer/Streamer | |
| 14 <input type="checkbox"/> Electronic component | 20 <input type="checkbox"/> Open flame source | |
| 15 <input type="checkbox"/> Mechanical device | 00 <input type="checkbox"/> Other delay device | |
| 16 <input type="checkbox"/> Remote control | UU <input type="checkbox"/> Unknown | |
| FUEL | | |
| <input type="checkbox"/> None | | |
| 11 <input type="checkbox"/> Ordinary combustibles | 16 <input type="checkbox"/> Pyrotechnic material | |
| 12 <input type="checkbox"/> Flammable gas | 17 <input type="checkbox"/> Explosive material | |
| 14 <input checked="" type="checkbox"/> Ignitable liquid | 00 <input type="checkbox"/> Other material | |
| 15 <input type="checkbox"/> Ignitable solid | UU <input type="checkbox"/> Unknown | |

INCENDIARY DEVICES CODES

Container

- 11 Bottle, glass.
- 12 Bottle, plastic.
- 13 Jug.
- 14 Pressurized container.
- 15 Can. Excludes gas and fuel cans (16).
- 16 Gasoline or fuel can.
- 17 Box.
- 00 Other container.
- NN No container.
- UU Unknown.

Ignition/Delay Device

- 11 Wick or fuse.
- 12 Candle.
- 13 Cigarette and matchbook.
- 14 Electronic component.
- 15 Mechanical device.
- 16 Remote control.
- 17 Road flare/fuse.
- 18 Chemical component.
- 19 Trailer/Streamer.
- 20 Open flame source.
- 00 Other delay device.
- NN No device.
- UU Unknown.

Fuel

- 11 Ordinary combustibles.
- 12 Flammable gas.

- 14 Ignitable liquid.
- 15 Ignitable solid.
- 16 Pyrotechnic material.
- 17 Explosive material.
- 00 Other material.
- NN None.
- UU Unknown.

SECTION I

I Other Investigative Information

Definition

Identifies other investigative information pertinent to the case.

Purpose

Additional information on the case defines the circumstances surrounding the investigation.

Entry

Check or mark all the boxes that apply to the case.

Example

The structure was vacant (3):

| Other Investigative Information | |
|---------------------------------|---|
| Check all that apply | |
| 1 | <input type="checkbox"/> Code violations |
| 2 | <input type="checkbox"/> Structure for sale |
| 3 | <input checked="" type="checkbox"/> Structure vacant |
| 4 | <input type="checkbox"/> Other crimes involved |
| 5 | <input type="checkbox"/> Illicit drug activity |
| 6 | <input type="checkbox"/> Change in insurance |
| 7 | <input type="checkbox"/> Financial problem |
| 8 | <input type="checkbox"/> Criminal/Civil actions pending |

OTHER INVESTIGATIVE INFORMATION CODES

- 1 Code violations.
- 2 Structure for sale.
- 3 Structure vacant.
- 4 Other crimes involved.
- 5 Illicit drug activity.
- 6 Change in insurance.
- 7 Financial problem.
- 8 Criminal/Civil actions pending.

SECTION J

J Property Ownership*Definition*

Identifies the ownership of the property involved in the arson.

- ☛ This field identifies the general owner of the property and differs from the specific ownership identified in Block K2 of the Basic Module.

Purpose

The general ownership of the property may provide useful information, such as motive, to case investigators.

Entry

Check or mark the box that best describes the ownership of the property.

Example

The storage company was owned and operated by a private citizen (1):

| J Property Ownership | |
|----------------------|---|
| 1 | <input checked="" type="checkbox"/> Private |
| 2 | <input type="checkbox"/> City, town, village, local |
| 3 | <input type="checkbox"/> County or parish |
| 4 | <input type="checkbox"/> State or province |
| 5 | <input type="checkbox"/> Federal |
| 6 | <input type="checkbox"/> Foreign |
| 7 | <input type="checkbox"/> Military |
| 0 | <input type="checkbox"/> Other |

PROPERTY OWNERSHIP CODES

| | |
|---|-----------------------------|
| 1 | Private. |
| 2 | City, town, village, local. |
| 3 | County or parish. |
| 4 | State or province. |
| 5 | Federal. |
| 6 | Foreign. |
| 7 | Military. |
| 0 | Other. |

SECTION K

K Initial Observations*Definition*

Identifies important initial observations made at the incident scene relating to the property's secure status or circumvention of security systems if present.

Purpose

A description of what the fire department found at the scene may be of use to arson investigators.

Entry

Check or mark all the boxes that apply.

Example

Windows were ajar (1) and the security system activated (7):

| K Initial Observations | |
|--|---|
| Check all that apply | |
| 1 <input checked="" type="checkbox"/> Windows ajar | 5 <input type="checkbox"/> Fire department forced entry |
| 2 <input type="checkbox"/> Doors ajar | 6 <input type="checkbox"/> Entry forced prior to FD arrival |
| 3 <input type="checkbox"/> Doors locked | 7 <input checked="" type="checkbox"/> Security system activated |
| 4 <input type="checkbox"/> Doors unlocked | 8 <input type="checkbox"/> Security system present (not activated) |

INITIAL OBSERVATIONS CODES

- | | |
|---|--|
| 1 | Windows ajar. |
| 2 | Doors ajar. |
| 3 | Doors locked. |
| 4 | Doors unlocked. |
| 5 | Fire department forced entry. |
| 6 | Entry forced prior to fire department arrival. |
| 7 | Security system was activated. |
| 8 | Security system was present but not activated. |

SECTION L

L Laboratory Used*Definition*

Identifies the laboratory, if any, that analyzed evidence.

Purpose

Provides the means for the collection and analysis of all data associated with a specific incident.

The ☆ denotes a required field.

Entry

Case investigators can use this information to locate all the evidence associated with a specific incident.

Example

Local (1) and FBI (4) laboratories were used:

| L Laboratory Used | | Check all that apply | | <input type="checkbox"/> None | |
|---------------------------------------|-------|---------------------------------------|-----|----------------------------------|------------------------------------|
| 1 <input checked="" type="checkbox"/> | Local | 3 <input type="checkbox"/> | ATF | 5 <input type="checkbox"/> Other | 6 <input type="checkbox"/> Private |
| 2 <input type="checkbox"/> | State | 4 <input checked="" type="checkbox"/> | FBI | Federal | |

LABORATORY USED CODES

| | |
|---|---------------------------|
| 1 | Local. |
| 2 | State. |
| 3 | ATF. |
| 4 | FBI. |
| 5 | Other federal laboratory. |
| 6 | Private. |
| N | None. |

SECTION M

Section M is a submodule of the Arson Module that is completed for each juvenile (under age 18) who was involved in the fire's ignition. If this portion of the module is used, the guidance and directions for completing Section A are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Arson Module must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

M¹ Subject Number

Definition

A unique number is assigned to each juvenile subject involved in the fire's ignition.

- ☛ A separate submodule (Section M) may be completed for each juvenile involved. The front side of paper forms (Sections A–L) does not need to be completed for the second, third, etc., juveniles.

Purpose

This data element allows tracking of any subject under 18 years of age; it permits analysis and tracking of juvenile firesetter trends.

Entry

Enter the subject's number assigned to this juvenile. A separate Subject Number is assigned to each juvenile. The first juvenile is always coded "001," and each succeeding juvenile is numbered sequentially and incremented by 1 beginning with "002." The three-character numeric field is zero filled, not right justified.

Example

This report is for the first subject:

| | | | | |
|-----------|---|---|---|---|
| M1 | Subject Number | | | |
| | Complete a separate Section M form for each juvenile | | | |
| | <table border="1"> <tr> <td>0</td> <td>0</td> <td>1</td> </tr> </table> | 0 | 0 | 1 |
| 0 | 0 | 1 | | |
| | Subject Number | | | |

M² Age or Date of Birth

Enter either the subject's age or the subject's date of birth. Do not enter both.

Age*Definition*

The subject's age in years.

Purpose

This information can be used with other demographic information to identify arson problems in certain segments of the population and to target arson prevention programs for certain audiences. This data element is particularly useful in tracking juvenile firesetter trends.

Entry

Enter the age of the subject involved in the fire's ignition. Estimate the age if it cannot be determined.

Example

The subject was 16 years old:

| | | | | | | | | | |
|--|-----------------------------|------|--|--|--|--|--|--|--|
| M2 | Age or Date of Birth | | | | | | | | |
| <table border="1"> <tr> <td>1</td> <td>6</td> </tr> </table> | 1 | 6 | | | | | | | |
| 1 | 6 | | | | | | | | |
| Age (in years) | | | | | | | | | |
| | OR | | | | | | | | |
| <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> </table> | | | | <table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Month | Day | Year | | | | | | | |

Date of Birth*Definition*

The month, day, and year of birth of the subject.

Purpose

This data element is an alternative to Age, which can be used with other demographic information to identify arson problems in certain segments of the population and to target arson prevention programs for certain audiences. This data element is particularly useful in tracking juvenile firesetter trends.

- ☛ This data element is used as an alternate method for calculating the subject's age. Age is collected in NFIRS but Date of Birth is not.

Entry

Enter the date of birth of the subject showing the month, day, and year (mm/dd/yyyy).

Example

The subject was born on November 18, 1987:

| M2 | | Age or Date of Birth | |
|---|---|---|---|
| <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> Age (in years) | | OR | |
| <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">8</div> |
| Month | | Day | |
| | | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">9</div> |
| | | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">8</div> | <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">7</div> |
| | | Year | |

M³ Gender

Definition

The identification of the subject as male or female.

Purpose

This information can be used with other demographic information to identify arson problems in certain segments of the population and to target arson prevention programs for certain audiences.

Entry

Check or mark the box that indicates the subject's gender.

Example

The subject was male (1):

| M3 | | Gender | |
|----|-------------------------------------|--------|--|
| 1 | <input checked="" type="checkbox"/> | Male | |
| 2 | <input type="checkbox"/> | Female | |

GENDER CODES

- | | |
|---|---------|
| 1 | Male. |
| 2 | Female. |

M⁴ Race*Definition*

The identification of the race of the subject, based on U.S. Office of Management and Budget (OMB) designations.

Purpose

This information can be used with other demographic information to identify arson problems in certain segments of the population and to target arson prevention programs for certain audiences.

Entry

Check or mark the appropriate box. If race cannot be determined, check or mark the Undetermined box.

☛ Hispanic is not considered a race, because a person can be black and Hispanic, white and Hispanic, etc.

Example

The subject was multiracial (0):

| M₄ Race | |
|---------------------------|--|
| 1 | <input type="checkbox"/> White |
| 2 | <input type="checkbox"/> Black, African American |
| 3 | <input type="checkbox"/> American Indian, Alaska Native |
| 4 | <input type="checkbox"/> Asian |
| 5 | <input type="checkbox"/> Native Hawaiian, Other Pacific Islander |
| 0 | <input checked="" type="checkbox"/> Other, multiracial |
| U | <input type="checkbox"/> Undetermined |

RACE CODES

| | |
|---|--|
| 1 | White. |
| 2 | Black or African American. |
| 3 | American Indian or Alaska Native. |
| 4 | Asian. |
| 5 | Native Hawaiian or other Pacific Islander. |
| 0 | Other. Includes multiracial. |
| U | Undetermined. |

M⁵ Ethnicity*Definition*

Identifies the ethnicity of the subject. Ethnicity is an ethnic classification or affiliation. Ethnicity designates a population subgroup having a common cultural heritage, as distinguished by customs, characteristics, language, common history, etc. Currently, Hispanic/Latino is the only OMB designation for ethnicity.

Purpose

This information can be used with other demographic information to identify arson problems in certain segments of the population and to target arson prevention programs.

Entry

Check or mark the appropriate box.

Example

The subject was an Hispanic (1):

| | |
|-----------|--|
| M5 | Ethnicity |
| 1 | <input checked="" type="checkbox"/> Hispanic or Latino |
| 0 | <input type="checkbox"/> Non Hispanic or Latino |

ETHNICITY CODES

- | | |
|---|-------------------------|
| 1 | Hispanic or Latino. |
| 0 | Non Hispanic or Latino. |

M⁶ Family Type

Definition

The nature of the family structure at the time of the incident.

Purpose

Information on family type can assist researchers in determining those risk factors that may be a predictor of juvenile firesetting, delinquency, and adult arson.

Entry

Check or mark the box that best describes the subject's family type.

Example

The subject lived with a foster family (2):

| | |
|-----------|--|
| M6 | Family Type |
| 1 | <input type="checkbox"/> Single parent |
| 2 | <input checked="" type="checkbox"/> Foster parent(s) |
| 3 | <input type="checkbox"/> Two-parent family |
| 4 | <input type="checkbox"/> Extended family |
| N | <input type="checkbox"/> No family unit |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Unknown |

FAMILY TYPE CODES

- 1 Single-parent family.
- 2 Foster parent(s).
- 3 Two-parent family.
- 4 Extended family. Includes multigenerational.
- N No family unit.
- 0 Other family type.
- U Unknown.

M7 Motivation/Risk Factors*Definition*

The stimulus or risk factors that were present and constituted a possible motivation for the subject(s) to burn, or attempt to burn, any real or personal property.

Purpose

This information is particularly useful in tracking juvenile firesetting trends and in developing prevention and intervention strategies.

Entry

Check or mark only one box for codes 1–3; then check or mark all other boxes (4–9) that apply. If the motivation is not listed or is unknown, check or mark the Other or Unknown box, respectively.

Example

The subject had a history of firesetting:

| | | |
|-----------|--|--|
| M7 | Motivation/Risk Factors | Check only one of codes 1–3 and then all others (4–9) that apply |
| | <ul style="list-style-type: none"> 1 <input type="checkbox"/> Mild curiosity about fire 2 <input type="checkbox"/> Moderate curiosity about fire 3 <input checked="" type="checkbox"/> Extreme curiosity about fire | |
| | <ul style="list-style-type: none"> 4 <input type="checkbox"/> Diagnosed (or suspected) ADD/ADHD 5 <input type="checkbox"/> History of trouble outside school 6 <input type="checkbox"/> History of stealing or shoplifting 7 <input type="checkbox"/> History of physically assaulting others 8 <input checked="" type="checkbox"/> History of fireplay or firesetting 9 <input type="checkbox"/> Transiency 0 <input type="checkbox"/> Other U <input type="checkbox"/> Unknown | |

MOTIVATION/RISK FACTORS CODES

- 1 Mild curiosity about fire.
- 2 Moderate curiosity about fire.
- 3 Extreme curiosity about fire.
- 4 Diagnosed (or suspected) ADD/ADHD.
- 5 History of trouble outside school.
- 6 History of stealing or shoplifting.
- 7 History of physically assaulting others.
- 8 History of fireplay or firesetting.
- 9 Transiency.
- 0 Other.
- U Unknown.

M⁸ Disposition of Person Under 18*Definition*

Describes how the juvenile firesetter was handled at the end of the incident.

Purpose

The data element tracks the disposition of any subject under 18 years of age. It permits analysis of how juvenile offenders are handled and is particularly useful in tracking juvenile firesetter trends. At the local level, this field is also useful in determining where repeat offenders have been sent in the past.

Entry

Check or mark the box that best describes the disposition of the subject.

Example

The fire department released the subject to social services (3):

| M₈ Disposition of Person Under 18 | |
|---|--|
| 1 | <input type="checkbox"/> Handled within department |
| 2 | <input type="checkbox"/> Released to parent/guardian |
| 3 | <input checked="" type="checkbox"/> Referred to other authority |
| 4 | <input type="checkbox"/> Referred to treatment/counseling program |
| 5 | <input type="checkbox"/> Arrested, charged as adult |
| 6 | <input type="checkbox"/> Referred to firesetter intervention program |
| 0 | <input type="checkbox"/> Other |
| U | <input type="checkbox"/> Unknown |

DISPOSITION OF PERSON UNDER 18 CODES

- 1 Handled within department (e.g., released with warning).
- 2 Released to parent or guardian.
- 3 Referred to other authority (e.g., social services, prosecuting attorney, juvenile court, probation).
- 4 Referred to treatment/counseling program (e.g., diversion program, in-patient or outpatient treatment program).
- 5 Arrested, charged as adult.
- 6 Referred to firesetter intervention program.
- 0 Other.
- U Unknown.

Chapter 14

SUPPLEMENTAL FORM (NFIRS-1S)

A FDID ☆ State ☆ Incident Date MM DD YYYY ☆ Station Incident Number ☆ Exposure ☆ Delete Change

K1 Person/Entity Involved Local Option Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix

Post Office Box Apt./Suite/Room City

State ZIP Code

K1 Person/Entity Involved Local Option Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix

Post Office Box Apt./Suite/Room City

State ZIP Code

K1 Person/Entity Involved Local Option Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix

Post Office Box Apt./Suite/Room City

State ZIP Code

K1 Person/Entity Involved Local Option Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix

Post Office Box Apt./Suite/Room City

State ZIP Code

K1 Person/Entity Involved Local Option Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix

Number Prefix Street or Highway Street Type Suffix

Post Office Box Apt./Suite/Room City

State ZIP Code

E3

Supplemental Special Studies

Local Option

**NFIRS-1S
Supplemental**

1

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

2

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

3

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

4

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

5

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

6

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

7

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

8

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

L

Remarks:
Local Option

CHAPTER 14

SUPPLEMENTAL FORM (NFIRS-1S)

The Supplemental Form is a local option for recording additional persons or entities involved in the incident for those departments that use paper-based incident reporting. It adds flexibility to any incident report by expanding the ability to collect additional Basic Module (Block K1) data.

This form also provides (1) fields for recording additional Supplemental Special Studies beyond the one field provided on the Basic Module (Block E3), and (2) additional space for recording Remarks concerning an incident beyond the space available on the Basic Module (Section L).

SECTION A

The guidance and directions for completing Section A of the Supplemental Form are the same as for Section A in the Basic Module. It is stressed that the entries in Section A of the Supplemental Form must be identical with the entries on the corresponding Basic Module. An example of a completed Section A can be found on page 3–8.

A Fire Department Identification (FDID) ☆

Entry

Enter the same FDID number found in Section A of the Basic Module.

State ☆

Entry

Enter the same State abbreviation found in Section A of the Basic Module.

Incident Date ☆

Entry

Enter the same incident date found in Section A of the Basic Module.

Station Number

Entry

Enter the same station number found in Section A of the Basic Module.

Incident Number ☆

Entry

Enter the same incident number found in Section A of the Basic Module.

Exposure Number ☆

Entry

Enter the same exposure number found in Section A of the Basic Module.

Delete/Change

Definition

Indicates a change to information submitted on a previous Supplemental Form or a deletion of an incorrect report.

Purpose

To delete or change previously reported information.

Entry

Delete. Check or mark this box when you have previously submitted a Supplemental Form and now want to have this report deleted from the database. If this box is marked, complete Section K and leave the rest of the report blank. Forward the report according to your normally established procedures.

Change. Check or mark this box only if you previously submitted a Supplemental Form to your state reporting authority and now want to update or change the information in the State database. Complete Section K and any other sections or blocks that need to be updated or corrected. If you need to blank a field that contains data, you must resubmit the original module containing the newly blanked field along with all the other original information in the module for that incident. This action is required only when sending an updated module to your State reporting authority. Forward the report according to your normally established procedures.

SECTION K

K¹ Person/Entity Involved

Business Name

Definition

The full name of the company or agency occupying, managing, or leasing the property where the incident occurred.

Purpose

This element provides a basis for long-term analysis in recognizing patterns of repeated fires in the same or different locations over a period of time. The business name is required at the local government level to establish an official document of record.

Entry

Enter the full name of the company or agency occupying the property where the incident occurred. This may or may not be the same as the owner.

Telephone*Definition*

The telephone number of the person or entity involved in the incident.

Purpose

This field collects additional information on the person or entity involved, which may be required at a later date.

Entry

Enter the area code and telephone number in the spaces provided.

Person Involved*Definition*

The full name of the person involved in the incident. If an entity, enter the name under Business Name at the top of Block K1.

Purpose

This information provides a basis for long-term analysis in recognizing patterns of repeated incidents in the same or different locations over a period of time. The name of the person involved is required at the local government level to establish an official document of record.

Entry

Enter the full name of the person as normally written. Enter the name using the format: prefix, first name, middle initial, last name, and suffix. If the name is unknown, several available resources may be checked for this information, such as street directory publications, utility company records, or other public agencies. Leave blank if unknown. Name prefixes and suffixes are as follows:

| PREFIX | | SUFFIX | |
|--------|----------|--------|--------------------------|
| MR | Mr. | JR | Junior |
| MRS | Mrs. | SR | Senior |
| MS | Ms. | I | The First |
| DR | Doctor | II | The Second |
| REV | Reverend | III | The Third |
| | | IV | The Fourth |
| | | MD | Medical Doctor |
| | | DDS | Doctor of Dental Science |

Address*Definition*

The address of the person or entity involved in the incident.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the address where the person or entity involved in the incident can be contacted. The full address includes the street number, prefix, street or highway name, street type, and suffix. (For a more detailed explanation of the address components, see Section B of the Basic Module.)

Post Office Box (P.O. Box)*Definition*

The number of a rented compartment in a post office for the storage of mail that is picked up by the business occupant.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the post office box number in the spaces provided. Leave blank if not applicable.

Apartment, Suite, or Room*Definition*

The number of the specific apartment, suite, or room where the incident occurred.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the apartment, suite, or room number in the block. Leave blank if not applicable.

City*Definition*

The city where the person or entity involved in the incident lives.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident. The incident address is required at the local government level to establish an official document of record.

Entry

Enter the city associated with the person's or entity's address.

State

Definition

The State where the person or entity involved in the incident lives.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident, and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the local or State level.

Entry

Enter the abbreviation for the State associated with the person's or entity's address.

☛ A list of State abbreviations is on page 3–5.

ZIP Code

Definition

A numerical code assigned by the U.S. Postal Service to all jurisdictions within the United States and U.S. Territories.

Purpose

The complete address provides local authorities with the location of the person or entity involved in the incident, and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the local or State level.

Entry

Enter the postal ZIP code for the address of the person or entity involved in the incident. Include the Plus Four digits of the ZIP code if known.

☛ A completed example of the information in this block is shown a on page 3–56.

SECTION E

E³ Supplemental Special Studies*Definition*

These fields should be used when you are using the paper forms and need space for more than one special study.

Temporary data elements that can be used for collection of information that is of special interest for a defined period. Special studies are typically required to capture information on emerging trends, problem areas, or a specific issue being studied. When the answer becomes known through the special study, the collection of that field is no longer required. If the data will always be needed for permanent collection, a State- or department-defined permanent user field should be created and used instead of the Special Studies field. A State, a fire department, or the NFDC can define special studies.

Special Study ID Number: This number uniquely identifies each special study that is being run by the fire department, State, or NFDC

Special Study Value: The value in the field being collected. Responses for special studies can be defined as codes or as alphanumeric entries of numeric values or dates. States, fire departments, and the NFDC can define Special Studies fields.

Purpose

The use of special studies allows departments, States, and the NFDC to quickly collect information on an issue or problem and answer a specific question through the temporary use of a special study field over a defined period of time. This is a State or local option.

Entry

If you are participating in a Special Study, your entry will depend on the type of data being collected. Use the codeset defined for the particular Special Study field if it is a coded entry. The data entered may also be a date or a numeric entry if the field has been so defined.

SECTION L

L Remarks

This supplemental Remarks block is an additional area for comments concerning the incident if you run out of room on the Basic Module (Section L).

Appendix A

PAPER FORMS FOR NFIRS 5.0 MODULES

A FDID Star State Star Incident Date Star MM DD YYYY Station Incident Number Star Exposure Star Delete Change No Activity **NFIRS-1 Basic**

B Location Type Star Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B, "Alternative Location Specification." Use only for wildland fires. Census Tract _____-_____
 Street address
 Intersection Number/Milepost Prefix Street or Highway Street Type Suffix
 In front of
 Rear of
 Adjacent to Apt./Suite/Room City State ZIP Code
 Directions
 U.S. National Grid Cross Street, Directions or National Grid, as applicable

C Incident Type Star
 Incident Type _____

E1 Dates and Times Midnight is 0000
 Check boxes if dates are the same as Alarm Date.
 Alarm Star Month Day Year Hour Min
 ALARM always required

E2 Shifts and Alarms Local Option
 Shift or Platoon Alarms District

D Aid Given or Received Star None
 1 Mutual aid received
 2 Auto. aid received
 3 Mutual aid given
 4 Auto. aid given
 5 Other aid given
 Their FDID Their State
 Their Incident Number

Arrival Star ARRIVAL required, unless canceled or did not arrive
 Controlled CONTROLLED optional, except for wildland fires
 Last Unit Cleared LAST UNIT CLEARED, required except for wildland fires

E3 Special Studies Local Option
 Special Study ID# Special Study Value

F Actions Taken Star
 Primary Action Taken (1)
 Additional Action Taken (2)
 Additional Action Taken (3)

G1 Resources Star
 Check this box and skip this block if an Apparatus or Personnel Module is used.
 Apparatus Personnel
 Suppression
 EMS
 Other
 Check box if resource counts include aid received resources.

G2 Estimated Dollar Losses and Values
LOSSES: Required for all fires if known. Optional for non-fires. None
 Property \$ _____, _____, _____
 Contents \$ _____, _____, _____
PRE-INCIDENT VALUE: Optional
 Property \$ _____, _____, _____
 Contents \$ _____, _____, _____

Completed Modules
 Fire-2
 Structure Fire-3
 Civilian Fire Cas.-4
 Fire Service Cas.-5
 EMS-6
 HazMat-7
 Wildland Fire-8
 Apparatus-9
 Personnel-10
 Arson-11

H1 Casualties None
 Deaths Injuries
 Fire Service _____
 Civilian _____
H2 Detector Required for confined fires.
 1 Detector alerted occupants
 2 Detector did not alert them
 U Unknown

H3 Hazardous Materials Release None
 1 Natural gas: slow leak, no evacuation or HazMat actions
 2 Propane gas: <21-lb tank (as in home BBQ grill)
 3 Gasoline: vehicle fuel tank or portable container
 4 Kerosene: fuel burning equipment or portable storage
 5 Diesel fuel/fuel oil: vehicle fuel tank or portable storage
 6 Household solvents: home/office spill, cleanup only
 7 Motor oil: from engine or portable container
 8 Paint: from paint cans totaling <55 gallons
 0 Other: special HazMat actions required or spill > 55 gal (Please complete the HazMat form.)

Mixed Use Property Not mixed
 10 Assembly use
 20 Education use
 33 Medical use
 40 Residential use
 51 Row of stores
 53 Enclosed mall
 58 Business & residential
 59 Office use
 60 Industrial use
 63 Military use
 65 Farm use
 00 Other mixed use

J Property Use Star None
Structures
 131 Church, place of worship
 161 Restaurant or cafeteria
 162 Bar/Tavern or nightclub
 213 Elementary school, kindergarten
 215 High school, junior high
 241 College, adult education
 311 Nursing home
 331 Hospital
Outside
 124 Playground or park
 655 Crops or orchard
 669 Forest (timberland)
 807 Outdoor storage area
 919 Dump or sanitary landfill
 931 Open land or field

341 Clinic, clinic-type infirmary
 342 Doctor/Dentist office
 361 Prison or jail, not juvenile
 419 1- or 2-family dwelling
 429 Multifamily dwelling
 439 Rooming/Boarding house
 449 Commercial hotel or motel
 459 Residential, board and care
 464 Dormitory/Barracks
 519 Food and beverage sales
 936 Vacant lot
 938 Graded/Cared for plot of land
 946 Lake, river, stream
 951 Railroad right-of-way
 960 Other street
 961 Highway/Divided highway
 962 Residential street/driveway

539 Household goods, sales, repairs
 571 Gas or service station
 579 Motor vehicle/boat sales/repairs
 599 Business office
 615 Electric-generating plant
 629 Laboratory/Science laboratory
 700 Manufacturing plant
 819 Livestock/Poultry storage (barn)
 882 Non-residential parking garage
 891 Warehouse
 981 Construction site
 984 Industrial plant yard
 Look up and enter a Property Use code and description only if you have NOT checked a Property Use box.
 Property Use Description Code

K1 Person/Entity Involved

Local Option

Business Name (if applicable) _____ Area Code _____ Phone Number _____

Check this box if same address as incident location (Section B). Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name _____ MI _____ Last Name _____ Suffix _____

Number _____ Prefix _____ Street or Highway _____ Street Type _____ Suffix _____



Post Office Box _____ Apt./Suite/Room _____ City _____

State _____ ZIP Code _____ - _____

More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

K2 Owner

Local Option

Same as person involved? Then check this box and skip the rest of this block.

Business Name (if applicable) _____ Area Code _____ Phone Number _____

Check this box if same address as incident location (Section B). Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name _____ MI _____ Last Name _____ Suffix _____

Number _____ Prefix _____ Street or Highway _____ Street Type _____ Suffix _____



Post Office Box _____ Apt./Suite/Room _____ City _____

State _____ ZIP Code _____ - _____



Remarks:

Local Option

Fire Module Required?

Check the box that applies and then complete the Fire Module based on Incident Type, as follows:

- Buildings 111 Complete Fire & Structure Modules
- Special structure 112 Complete Fire Module & Section I, Structure Module
- Confined 113-118 Basic Module Only
- Mobile property 120-123 Complete Fire & Structure Modules
- Vehicle 130-138 Complete Fire Module
- Vegetation 140-143 Complete Fire or Wildland Module
- Outside rubbish fire 150-155 Basic Module Only
- Special outside fire 160 Complete Fire or Wildland Module
- Special outside fire 161-164 Complete Fire Module
- Crop fire 170-173 Complete Fire or Wildland Module



ITEMS WITH A ★ MUST ALWAYS BE COMPLETED!

More remarks? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

M Authorization

Check box if same as Officer in charge.

Officer in charge ID _____ Signature _____ Position or rank _____ Assignment _____ Month _____ Day _____ Year _____

Member making report ID _____ Signature _____ Position or rank _____ Assignment _____ Month _____ Day _____ Year _____

A FDID Star State Star Incident Date MM DD YYYY Star Station Incident Number Star Exposure Star Delete Change **NFIRS-2 Fire**

B Property Details

B1 Not Residential
Estimated number of residential living units in building of origin *whether or not all units became involved.*

B2 Buildings not involved
Number of buildings involved

B3 None Less than one acre
Acres burned (outside fires)

C On-Site Materials or Products None
Complete if there were any significant amounts of commercial, industrial, energy, or agricultural products or materials on the property, *whether or not they became involved.*

Enter up to three codes. Check one box for each code entered.

On-site material (1)

On-site material (2)

On-site material (3)

On-Site Materials Storage Use

1 Bulk storage or warehousing
2 Processing or manufacturing
3 Packaged goods for sale
4 Repair or service
U Undetermined

D Ignition

D1 Star
Area of fire origin

D2 Star
Heat source

D3 Star 1 Check box if fire spread was confined to object of origin.
Item first ignited

D4 Star
Type of material first ignited
Required only if item first ignited code is 00 or <70.

E1 Cause of Ignition Star
 Check box if this is an exposure report.

1 Intentional
2 Unintentional
3 Failure of equipment or heat source
4 Act of nature
5 Cause under investigation
U Cause undetermined after investigation

E2 Factors Contributing to Ignition Star None

Factor contributing to ignition (1)

Factor contributing to ignition (2)

E3 Human Factors Star
Contributing to Ignition

Check all applicable boxes None

1 Asleep
2 Possibly impaired by alcohol or drugs
3 Unattended person
4 Possibly mentally disabled
5 Physically disabled
6 Multiple persons involved
7 Age was a factor

Estimated age of person involved

1 Male 2 Female

F1 Equipment Involved in Ignition

None Star

Equipment Involved

Brand

Model

Serial #

Year

F2 Equipment Power Source

Equipment Power Source

F3 Equipment Portability

1 Portable
2 Stationary

Portable equipment normally can be moved by one or two persons, is designed to be used in multiple locations, and requires no tools to install.

G Fire Suppression Factors None

Enter up to three codes.

Fire suppression factor (1)

Fire suppression factor (2)

Fire suppression factor (3)

H1 Mobile Property Involved None

1 Not involved in ignition, but burned
2 Involved in ignition, but did not burn
3 Involved in ignition and burned

Mobile property model

License Plate Number State VIN

H2 Mobile Property Type and Make

Mobile property type

Mobile property make

Local Use

Pre-Fire Plan Available
Some of the information presented in this report may be based upon reports from other agencies:

Arson report attached
 Police report attached
 Coroner report attached
 Other reports attached

| | | | |
|---|---|---|--|
| I1 Structure Type ☆ If fire was in an enclosed building or a portable/mobile structure, complete the rest of this form. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/Mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air-supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g., piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g., fences) 0 <input type="checkbox"/> Other type of structure | I2 Building Status ☆ <ul style="list-style-type: none"> 1 <input type="checkbox"/> Under construction 2 <input type="checkbox"/> In normal use 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | I3 Building Height ☆ Count the roof as part of the highest story. <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Total number of stories at or above grade. <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Total number of stories below grade. | I4 Main Floor Size ☆ <div style="margin-top: 10px;"> <input type="checkbox"/> , <input type="checkbox"/> , <input type="checkbox"/> </div> Total square feet <p style="text-align: center; margin: 10px 0;">OR</p> <div style="margin-top: 10px;"> <input type="checkbox"/> , <input type="checkbox"/> BY <input type="checkbox"/> , <input type="checkbox"/> </div> Length in feet Width in feet |
|---|---|---|--|

NFIRS-3
Structure
Fire

| | | |
|---|--|---|
| J1 Fire Origin ☆ <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Story of fire origin <input type="checkbox"/> Below grade | J3 Number of Stories Damaged by Flame Count the roof as part of the highest story. <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Number of stories w/minor damage (1 to 24% flame damage) <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Number of stories w/significant damage (25 to 49% flame damage) <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Number of stories w/heavy damage (50 to 74% flame damage) <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Number of stories w/extreme damage (75 to 100% flame damage) | K Type of Material Contributing Most to Flame Spread <input type="checkbox"/> Check if no flame spread OR if same as Material First Ignited (Block D4, Fire Module) OR if unable to determine. <div style="margin-top: 10px; text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Item contributing most to flame spread <div style="margin-top: 10px; text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Type of material contributing most to flame spread Required only if item contributing code is 00 or <70. |
| J2 Fire Spread ☆ If fire spread was confined to object of origin, do not check a box (Ref. Block D3, Fire Module). <ul style="list-style-type: none"> 2 <input type="checkbox"/> Confined to room of origin 3 <input type="checkbox"/> Confined to floor of origin 4 <input type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin | | |

Skip to
Section L

| | | |
|--|--|---|
| L1 Presence of Detectors ☆ (In area of the fire) <ul style="list-style-type: none"> N <input type="checkbox"/> None Present 1 <input type="checkbox"/> Present U <input type="checkbox"/> Undetermined | L3 Detector Power Supply <ul style="list-style-type: none"> 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug-in 4 <input type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug-in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | L5 Detector Effectiveness Required if detector operated. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Alerted occupants, occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined |
| L2 Detector Type <ul style="list-style-type: none"> 1 <input type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke and heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than one type present 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | L4 Detector Operation <ul style="list-style-type: none"> 1 <input type="checkbox"/> Fire too small to activate 2 <input type="checkbox"/> Operated 3 <input type="checkbox"/> Failed to operate U <input type="checkbox"/> Undetermined | L6 Detector Failure Reason Required if detector failed to operate. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Power failure, shutoff, or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes not cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined |

Complete
Block L5

Complete
Block L6

| | | |
|--|--|--|
| M1 Presence of Automatic Extinguishing System ☆ <ul style="list-style-type: none"> N <input type="checkbox"/> None Present 1 <input type="checkbox"/> Present 2 <input type="checkbox"/> Partial System Present U <input type="checkbox"/> Undetermined | M3 Operation of Automatic Extinguishing System Required if fire was within designed range. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Operated/effective (go to M4) 2 <input type="checkbox"/> Operated/Not effective (go to M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined | M5 Reason for Automatic Extinguishing System Failure Required if system failed or not effective. <ul style="list-style-type: none"> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined |
| M2 Type of Automatic Extinguishing System Required if fire was within designed range of AES. <ul style="list-style-type: none"> 1 <input type="checkbox"/> Wet-pipe sprinkler 2 <input type="checkbox"/> Dry-pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen-type system 7 <input type="checkbox"/> Carbon dioxide (CO₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined | M4 Number of Sprinkler Heads Operating Required if system operated. <div style="margin-top: 10px;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> Number of sprinkler heads operating | |

A FDID Delete Change

State Incident Date Station Incident Number Exposure

MM DD YYYY

**NFIRS-5
Fire Service
Casualty**

B Injured Person

Identification Number Male Career Female Volunteer

1 2 1 2

First Name MI Last Name Suffix

C Casualty Number

Casualty Number

D Age or Date of Birth

Age OR

In years Month Day Year

E Date and Time of Injury Midnight is 0000.

Date of Injury Time of Injury

Month Day Year Hour Minute

F Responses

Number of prior responses during past 24 hours

G1 Usual Assignment

1 Suppression
2 EMS
3 Prevention
4 Training
5 Maintenance
6 Communications
7 Administration
8 Fire investigation
0 Other

G2 Physical Condition Just Prior to Injury

1 Rested 0 Other
2 Fatigued U Undetermined
4 Ill or injured

G3 Severity

1 Report only, including exposure
2 First aid only
3 Treated by physician (no lost time)
4 Moderate (lost time)
5 Severe (lost time)
6 Life threatening (lost time)
7 Death

G4 Taken To Not transported

1 Hospital
4 Doctor's office
5 Morgue/Funeral home
6 Residence
7 Station or quarters
0 Other

G5 Activity at Time of Injury

Activity at time of injury

H1 Primary Apparent Symptom

Primary apparent symptom

H2 Primary Part of Body Injured None

Primary injured body part

I1 Cause of Firefighter Injury

Cause of injury

I2 Factor Contributing to Injury None

Contributing factor

I3 Object Involved in Injury None

Object involved in injury

J1 Where Injury Occurred

1 En route to FD location
2 At FD location
3 En route to incident scene
4 En route to medical facility
5 At scene in structure
6 At scene outside
7 At medical facility
8 Returning from incident
9 Returning from med facility
0 Other
U Undetermined

J3 Specific Location Where Injury Occurred

65 In aircraft
64 In boat, ship, or barge
63 In rail vehicle
61 In motor vehicle
54 In sewer
53 In tunnel
49 In structure
45 In attic
36 In water
35 In well
34 In ravine
33 In quarry or mine
32 In ditch or trench
31 In open pit
28 On steep grade
27 On fire escape/outside stairs
26 On vertical surface or ledge
25 On ground ladder
24 On aerial ladder or in basket
23 On roof
22 Outside at grade

00 Other
UU Undetermined

Complete Block J4

J4 Vehicle Type Complete ONLY if Specific Location code is >60

1 Suppression vehicle
2 EMS vehicle
3 Other FD vehicle
4 Non-FD vehicle

Remarks

If protective equipment failed and was a factor in this injury, please complete the other side of this form.

NFIRS-5 Revision 01/01/05

J2 Story Where Injury Occurred

1 Check this box and enter the story if the injury occurred inside or on a structure

Story of injury Below grade

2 Injury occurred outside

K1 Did protective equipment fail and contribute to the injury?

Please complete the remainder of this form ONLY if you answer YES.

Yes Y No N Equipment
Sequence
Number**NFIRS-5
Fire Service
Casualty****K2 Protective Equipment Item**

Head or Face Protection

- 11 Helmet
 12 Full face protector
 13 Partial face protector
 14 Goggles/eye protection
 15 Hood
 16 Ear protector
 17 Neck protector
 10 Other

Coat, Shirt, or Trousers

- 21 Protective coat
 22 Protective trousers
 23 Uniform shirt
 24 Uniform T-shirt
 25 Uniform trousers
 26 Uniform coat or jacket
 27 Coveralls
 28 Apron or gown
 20 Other

Boots or Shoes

- 31 Knee length boots with steel baseplate and steel toes
 32 Knee length boots with steel toes only
 33 3/4 length boots with steel baseplate and steel toes
 34 3/4 length boots with steel toes only
 35 Boots without steel baseplate and steel toes
 36 Safety shoes with steel baseplate and steel toes
 37 Safety shoes with steel toes only
 38 Non-safety shoes
 30 Other

Respiratory Protection

- 41 SCBA (demand) open circuit
 42 SCBA (positive pressure) open circuit
 43 SCBA closed circuit
 44 Not self-contained
 45 Cartridge respirator
 46 Dust or particle mask
 40 Other

Hand Protection

- 51 Firefighter gloves with wristlets
 52 Firefighter gloves without wristlets
 53 Work gloves
 54 HazMat gloves
 55 Medical gloves
 50 Other

Special Equipment

- 61 Proximity suit for entry
 62 Proximity suit for non-entry
 63 Totally encapsulated, reusable chemical suit
 64 Totally encapsulated, disposable chemical suit
 65 Partially encapsulated, reusable chemical suit
 66 Partially encapsulated, disposable chemical suit
 67 Flash protection suit
 68 Flight or jump suit
 69 Brush suit
 71 Exposure suit
 72 Self-contained underwater breathing apparatus (SCUBA)
 73 Life preserver
 74 Life belt or ladder belt
 75 Personal alert safety system (PASS)
 76 Radio distress device
 77 Personal lighting
 78 Fire shelter or tent
 79 Vehicle safety belt
 70 Special equipment, other
 00 Protective equipment, other

Was the failure of more than one item of protective equipment a factor in the injury? If so, complete an additional page of this form for each piece of failed equipment.

K3 Protective Equipment Problem

Check one box to indicate the main problem that occurred.

- 11 Burned
 12 Melted
 21 Fractured, cracked or broken
 22 Punctured
 23 Scratched
 24 Knocked off
 25 Cut or ripped
 31 Trapped steam or hazardous gas
 32 Insufficient insulation
 33 Object fell in or onto equipment item
 41 Failed under impact
 42 Face piece or hose detached
 43 Exhalation valve inoperative or damaged
 44 Harness detached or separated
 45 Regulator failed to operate
 46 Regulator damaged by contact
 47 Problem with admissions valve
 48 Alarm failed to operate
 49 Alarm damaged by contact
 51 Supply cylinder or valve failed to operate
 52 Supply cylinder/valve damaged by contact
 53 Supply cylinder—insufficient air/oxygen
 94 Did not fit properly
 95 Not properly serviced or stored prior to use
 96 Not used for designed purpose
 97 Not used as recommended by manufacturer
 00 Other equipment problem
 UU Undetermined

K4 Equipment Manufacturer, Model and Serial Number
Manufacturer
Model
Serial Number

A

FDID State Incident Date MM DD YYYY Station Incident Number Exposure

Delete Change

NFIRS-8 Wildland Fire

B Alternate Location Specification

Enter Latitude/Longitude OR Township/Range/Section/Subsection Meridian if Section B on the Basic Module is not completed.

Latitude Longitude

OR

Township Range Section Subsection Meridian

North South East West

C Area Type

1 Rural, farms >50 acres
 2 Urban (heavily populated)
 3 Rural/Urban or suburban
 4 Urban-wildland interface area

D1 Wildland Fire Cause

1 Natural source
 2 Equipment
 3 Smoking
 4 Open/Outdoor fire
 5 Debris/Vegetation burn
 6 Structure (exposure)
 7 Incendiary

8 Misuse of fire
 0 Other
 U Undetermined

D2 Human Factors Contributing to Ignition

Check as many boxes as are applicable. None

1 Asleep
 2 Possibly impaired by alcohol or drugs
 3 Unattended person
 4 Possibly mentally disabled
 5 Physically disabled
 6 Multiple persons involved
 7 Age was a factor

D3 Factors Contributing to Ignition

#1 #2

D4 Fire Suppression Factors

#1 #2 #3

Enter up to three factors

E Heat Source

F Mobile Property Type

G Equipment Involved in Ignition

H Weather Information

NFDRS Weather Station ID

Weather Type Wind Direction

Wind Speed (mph) Air Temperature F° Check if negative

Relative Humidity Fuel Moisture Fire Danger Rating

I1 Number of Buildings Ignited

None

Number of buildings that were ignited in Wildland fire.

I2 Number of Buildings Threatened

None

Number of buildings that were threatened by Wildland fire but were not involved.

I3 Total Acres Burned

, , .

I4 Primary Crops Burned

Identify up to 3 crops if any crops were burned.

Crop 1

Crop 2

Crop 3

J Property Management

Indicate the percent of the total acres burned for each ownership type then check the ONE box to identify the property ownership at the origin of the fire. If the ownership at origin is Federal, enter the Federal Agency Code.

Ownership Undetermined Private Public

% Total Acres Burned %

Private

1 Tax paying %
 2 Non-tax paying %

Public

3 City, town, village, local %
 4 County or parish %
 5 State or province %
 6 Federal %
 Federal Agency Code

7 Foreign %
 8 Military %
 0 Other %

K NFDRS Fuel Model at Origin

Enter the code and the descriptor corresponding to the NFDRS Fuel Model at Origin.

L1 Person Responsible for Fire

1 Identified person caused fire
 2 Unidentified person caused fire
 3 Fire not caused by person

If person identified, complete the rest of Section L.

L2 Gender of Person Involved

1 Male
 2 Female

L3 Age or Date of Birth

Age in Years Date of Birth

OR

Month Day Year

L4 Activity of Person Involved

Activity of Person Involved

M Type of Right-of-Way

Required if less than 100 feet.

Feet

Horizontal distance from right-of-way Type of right-of-way

N Fire Behavior

These optional descriptors refer to observations made at the point of initial attack.

Feet
Elevation

Relative position on slope

Aspect

Feet
Flame length

Chains per Hour
Rate of spread

A FDID Delete **NFIRS-11 Arson**
 State Change
 Incident Date MM DD YYYY
 Station Incident Number Exposure

B Agency Referred To None
 Agency Name Their case number
 Number Prefix Street or Highway Street Type Suffix Their ORI
 Post Office Box Apt./Suite/Room City Their Federal Identifier (FID)
 State ZIP Code Agency phone number Their FDID

C Case Status
 1 Investigation open
 2 Investigation closed
 3 Investigation inactive
 4 Closed with arrest
 5 Closed with exceptional clearance

D Availability of Material First Ignited
 1 Transported to scene
 2 Available at scene
 U Unknown

E Suspected Motivation Factors Check up to three factors
 11 Extortion 22 Hate crime 42 Vanity/Recognition 54 Burglary
 12 Labor unrest 23 Institutional 43 Thrills 61 Homicide concealment
 13 Insurance fraud 24 Societal 44 Attention/Sympathy 62 Burglary concealment
 14 Intimidation 31 Protest 45 Sexual excitement 63 Auto theft concealment
 15 Void contract/lease 32 Civil unrest 51 Homicide 64 Destroy records/evidence
 21 Personal 41 Fireplay/Curiosity 52 Suicide 00 Other suspected motivation
 53 Domestic violence UU Unknown motivation

F Apparent Group Involvement None
 Check up to three factors
 1 Terrorist group
 2 Gang
 3 Anti-government group
 4 Outlaw motorcycle organization
 5 Organized crime
 6 Racial/Ethnic hate group
 7 Religious hate group
 8 Sexual preference hate group
 0 Other group
 U Unknown

H Incendiary Devices CONTAINER No container
 Select one from each category
 11 Bottle (glass) 14 Pressurized container 17 Box
 12 Bottle (plastic) 15 Can (not gas or fuel) 00 Other Container
 13 Jug 16 Gasoline or fuel can UU Unknown

IGNITION/DELAY DEVICE No device
 11 Wick or fuse 17 Road flare/fuse
 12 Candle 18 Chemical component
 13 Cigarette and matchbook 19 Trailer/Streamer
 14 Electronic component 20 Open flame source
 15 Mechanical device 00 Other delay device
 16 Remote control UU Unknown

G1 Entry Method
 Entry Method

FUEL None
 11 Ordinary combustibles 16 Pyrotechnic material
 12 Flammable gas 17 Explosive material
 14 Ignitable liquid 00 Other material
 15 Ignitable solid UU Unknown

G2 Extent of Fire Involvement on Arrival
 Extent of Fire Involvement

I Other Investigative Information Check all that apply
 1 Code violations
 2 Structure for sale
 3 Structure vacant
 4 Other crimes involved
 5 Illicit drug activity
 6 Change in insurance
 7 Financial problem
 8 Criminal/Civil actions pending

J Property Ownership
 1 Private
 2 City, town, village, local
 3 County or parish
 4 State or province
 5 Federal
 6 Foreign
 7 Military
 0 Other

K Initial Observations Check all that apply
 1 Windows ajar 5 Fire department forced entry
 2 Doors ajar 6 Entry forced prior to FD arrival
 3 Doors locked 7 Security system activated
 4 Doors unlocked 8 Security system present (not activated)

L Laboratory Used Check all that apply None
 1 Local 3 ATF 5 Other 6 Private
 2 State 4 FBI Federal

A

FDID Delete
State Change
MM DD YYYY
Incident Date
Station
Incident Number
Exposure

K1

Person/Entity Involved

Local Option

Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State ZIP Code



K1

Person/Entity Involved

Local Option

Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State ZIP Code



K1

Person/Entity Involved

Local Option

Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State ZIP Code



K1

Person/Entity Involved

Local Option

Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State ZIP Code



K1

Person/Entity Involved

Local Option

Business Name (if applicable) Area Code Phone Number

Check this box if same address as incident location. Then skip these three duplicate address lines.

Mr., Ms., Mrs. First Name MI Last Name Suffix
Number Prefix Street or Highway Street Type Suffix
Post Office Box Apt./Suite/Room City
State ZIP Code



E3

Supplemental Special Studies

Local Option

**NFIRS-1S
Supplemental**

1

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

2

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

3

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

4

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

5

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

6

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

7

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

8

| | |
|-------------------|---------------------|
| Special Study ID# | Special Study Value |
|-------------------|---------------------|

L

Remarks:

Local Option

Appendix B

ALPHABETIZED SYNONYMS OF SELECTED CODE LISTS

Appendix B

Alphabetized Synonyms of Selected Code Lists

This appendix presents synonyms of several code lists presented in the chapters to this guide. These alphabetical lists are based on the logic and definitions of their respective code lists. They are designed to assist a user in selecting proper classifications. A person using this list, however, should compare the classification found here with those in the chapter to ensure that there are no qualifications on the definition of a term.

The six synonym lists of this appendix apply to eleven code lists in the chapters, as follows:

Property Use – Page B-3:

Chapter 3, Basic Module, Section J, *Property Use*

Materials/Products – Page B-9:

Chapter 4, Fire Module, Section C, *On-Site Materials or Products*

Area/Location – Page B-14:

Chapter 4, Fire Module, Block D, *Area of Fire Origin*

Chapter 6, Civilian Fire Casualty Module, Block M5, *Specific Location at Time of Injury*

Items Ignited – Page B-18:

Chapter 4, Fire Module, Block D3, *Item First Ignited*

Chapter 5, Structure Fire Module, Block K1, *Item Contributing Most to Flame Spread*

Type of Material – Page B-22:

Chapter 4, Fire Module, Block D4, *Type of Material First Ignited*

Chapter 5, Structure Fire Module, Block K2, *Type of Material Contributing Most to Flame Spread*

Equipment Involved – Page B-25:

Chapter 4, Fire Module, Block F1, *Equipment Involved in Ignition*

Chapter 9, HazMat Module, Section M, *Equipment Involved in Release*

Chapter 10, Wildland Fire Module, Section G, *Equipment Involved in Ignition*

Property Use Codes

A

| | |
|-----|--|
| 599 | Administrative office |
| 241 | Adult art school |
| 241 | Adult dance school |
| 241 | Adult education center |
| 655 | Agriculture: farm, crops, orchard (incl. processing and packaging on property) |
| 974 | Aircraft loading area |
| 972 | Aircraft runway |
| 973 | Aircraft taxiway |
| 171 | Airport terminal |
| 322 | Alcohol abuse recovery center |
| 549 | Ammunition sales |
| 123 | Amphitheater |
| 113 | Amusement center, electronic |
| 129 | Amusement center, indoor or outdoor |
| 300 | Animal hospital |
| 819 | Animal pen, shelter |
| 539 | Antique shop |
| 429 | Apartment |
| 700 | Appliance manufacturing |
| 539 | Appliance store |
| 152 | Aquarium |
| 113 | Arcade, video |
| 123 | Arena |
| 123 | Armory, with fixed seating |
| 122 | Armory, without fixed seating |
| 152 | Art gallery |
| 241 | Art school, adult |
| 569 | Art supplies |
| 323 | Asylum |
| 141 | Athletic club |
| 592 | ATM kiosk |
| 599 | Attorney's office |
| 182 | Auditorium |
| 579 | Automobile sales, service, repair |

B

| | |
|-----|------------------------|
| 519 | Bakery sales |
| 123 | Ballpark |
| 121 | Ballroom |
| 592 | Bank |
| 162 | Bar |
| 557 | Barber shop |
| 819 | Barn |
| 464 | Barracks |
| 110 | Baseball batting range |
| 121 | Basketball court |
| 116 | Bathhouse |
| 937 | Beach |
| 142 | Beach club |

| | |
|-----|-----------------------------|
| 557 | Beauty shop |
| 700 | Beverage manufacturing |
| 112 | Billiard center |
| 700 | Bindery, book |
| 144 | Bingo parlor (gambling) |
| 700 | Blacksmith shop |
| 439 | Boarding house |
| 898 | Boat launching facility |
| 571 | Boat refueling facility |
| 579 | Boat sales, service, repair |
| 143 | Boating club |
| 700 | Book bindery |
| 549 | Book store |
| 111 | Bowling alley |
| 141 | Boys' club |
| 921 | Bridge |
| 931 | Brushland |
| 464 | Bunk house |
| 173 | Bus station |
| 599 | Business office |

C

| | |
|-----|---|
| 116 | Cabana |
| 161 | Cafe, cafeteria |
| 935 | Campsite with utilities |
| 519 | Candy store |
| 579 | Car sales, service, repair |
| 129 | Carnival |
| 144 | Casino |
| 581 | Catalog store |
| 131 | Cathedral |
| 938 | Cemetery |
| 322 | Center, alcohol/drug/substance abuse |
| 131 | Chapel |
| 700 | Chemical manufacturing |
| 254 | Child care, in commercial property |
| 255 | Child care, in residence, licensed |
| 256 | Child care, in residence, unlicensed |
| 569 | Chimney cleaning service |
| 549 | China shop |
| 340 | Chiropractor office |
| 131 | Church |
| 129 | Circus |
| 241 | Classroom, college |
| 341 | Clinic |
| 529 | Clothing store |
| 141 | Club: athletic, health |
| 142 | Club: country, golf, equestrian, tennis, hunting, fishing |
| 144 | Club, gambling |
| 143 | Club, yacht |

Property Use Codes (Cont'd)

142 Clubhouse
 679 Coal mine
 926 Collection box, charity
 241 College building, classroom
 464 College dormitory
 963 Commercial street, road
 639 Communications center
 635 Computer center, laboratory
 182 Concert hall
 429 Condo
 981 Construction site (not buildings)
 311 Convalescent home
 511 Convenience store
 464 Convent dormitory
 122 Convention center, without fixed seating
 142 Country club
 155 Courthouse, courtroom
 946 Creek
 134 Crematorium
 323 Criminally insane facility
 655 Crops

D

519 Dairy store
 121 Dance hall
 241 Dance school, adult
 254 Day care, in commercial property
 255 Day care, in residence, licensed
 256 Day care, in residence, unlicensed
 631 Defense installation
 519 Delicatessen
 342 Dentist's office
 581 Department store
 419 Detached home
 361 Detention camp, adult
 363 Detention home, juvenile
 161 Diner
 161 Dining hall
 162 Dinner theater
 960 Dirt Road
 321 Disability development facility
 162 Disco club
 581 Discount store
 961 Divided highway
 898 Dock
 342 Doctor's office
 464 Dormitory
 183 Drive-in theater
 962 Driveway, residential
 322 Drug abuse recovery center
 581 Drug store

564 Dry cleaning shop
 529 Dry goods shop
 919 Dump
 419 Duplex
 419 Dwelling, one- and two-family

E

241 Education center, adult
 659 Egg production
 642 Electrical distribution system
 700 Electrical equipment manufacturing
 642 Electrical substation
 615 Electric-generating plant
 113 Electronic amusement center
 213 Elementary school (incl. kindergarten)
 921 Elevated roadway, railway
 816 Elevator, grain
 341 Emergency medical facility
 142 Equestrian club, lodge
 122 Exhibit hall, without fixed seating
 800 Explosives storage
 569 Exterminating service
 549 Eyeglass store

F

700 Factory
 129 Fair (carnival)
 655 Farm
 122 Field house, without fixed seating
 931 Field, open
 123 Field, sports
 982 Field: gas, oil
 186 Film production studio
 888 Fire station
 559 Fireworks sales
 659 Fish hatchery
 142 Fishing lodge
 645 Flammable liquid distribution
 569 Floor cleaning service
 549 Florist shop
 519 Food and beverage sales
 700 Food industry processing
 700 Footwear manufacturing
 669 Forest
 462 Fraternity house
 134 Funeral parlor
 700 Furniture manufacturing
 539 Furniture store

Property Use Codes (Cont'd)

G

| | |
|-----|---|
| 144 | Gambling club |
| 882 | Garage, commercial parking, general vehicle |
| 881 | Garage, parking (detached from residence) |
| 648 | Garbage disposal (not landfill) |
| 559 | Garden supply store |
| 644 | Gas distribution system |
| 982 | Gas field |
| 571 | Gas station |
| 142 | Golf club |
| 938 | Golf course, public or private |
| 110 | Golf driving range |
| 599 | Government office (not defense) |
| 816 | Grain elevator |
| 123 | Grandstand |
| 931 | Grassland |
| 679 | Gravel pit |
| 655 | Greenhouse |
| 519 | Grocery store |
| 121 | Gymnasium |

H

| | |
|-----|---|
| 557 | Hair salon |
| 459 | Halfway house |
| 880 | Hangar: airplane, boat |
| 539 | Hardware store |
| 659 | Hatchery, fish |
| 141 | Health club |
| 614 | Heat-generating plant |
| 974 | Helipad, helistop |
| 171 | Heliport |
| 343 | Hemodialysis unit (not part of hospital) |
| 215 | High school |
| 961 | Highway: divided, limited access |
| 559 | Hobby shop |
| 123 | Hockey rink (in arena) |
| 419 | Home: detached, manufactured, mobile |
| 569 | Home maintenance service |
| 439 | Homeless shelter |
| 332 | Hospice |
| 331 | Hospital: medical, pediatric, psychiatric |
| 449 | Hostel |
| 449 | Hotel, commercial |
| 439 | Hotel, residential |
| 439 | House: boarding, rooming |
| 462 | House: fraternity, sorority |
| 539 | Household goods, repairs, sales |
| 142 | Hunting lodge |

I

| | |
|-----|--|
| 114 | Ice skating rink, indoor or outdoor |
| 648 | Incinerator |
| 984 | Industrial plant yard area (not outdoor storage) |
| 700 | Industry |
| 331 | Infirmiry, hospital-type |
| 341 | Infirmiry, clinic-type |
| 449 | Inn |
| 599 | Insurance carrier's office |

J

| | |
|-----|--|
| 361 | Jail, not part of police station or other facility |
| 549 | Jewelry store |
| 215 | Junior high school |
| 363 | Juvenile detention center |

K

| | |
|-----|--------------|
| 162 | Karaoke bar |
| 819 | Kennel |
| 162 | Key club |
| 213 | Kindergarten |

L

| | |
|-----|--|
| 599 | Labor organization office |
| 635 | Laboratory, computer |
| 629 | Laboratory, science |
| 946 | Lake |
| 938 | Land plot, graded or cared-for |
| 931 | Land, open |
| 919 | Landfill, sanitary |
| 898 | Launching facility for boats |
| 564 | Laundry |
| 599 | Lawyer's office |
| 151 | Library |
| 569 | Linen supply house |
| 519 | Liquor store |
| 659 | Livestock production |
| 819 | Livestock storage |
| 974 | Loading area, aircraft |
| 839 | Locker, storage |
| 449 | Lodge |
| 141 | Lodge: athletic, health |
| 142 | Lodge: fishing, hunting |
| 439 | Lodging house |
| 311 | Long-term care facility, medical |
| 459 | Long-term care facility, nonmedical (not nursing home) |
| 936 | Lot, vacant |
| 571 | LP-gas bottle filling station, public |

Property Use Codes (Cont'd)

849 LP-gas storage
559 Lumber sales

M

926 Mailbox
596 Mailing firm
581 Mall, common areas
419 Manufactured home
700 Manufacturing
898 Marina
898 Marine passenger terminal
571 Marine refueling facility
579 Marine sales, service, repair
519 Market
511 Market, convenience
952 Marshalling yard
174 Mass transit station
134 Mausoleum
931 Meadow
331 Medical hospital
154 Memorial structure
323 Mental institution
321 Mental retardation facility
700 Metal manufacturing
174 Metro
215 Middle school
464 Military barracks
631 Military installation
659 Milking facility
679 Mine
899 Mini-storage unit
110 Miniature golf course
131 Mission
419 Mobile home
464 Monastery dormitory
154 Monument
134 Morgue
134 Mortuary
131 Mosque
449 Motel, commercial
579 Motor vehicle sales, service, repair
186 Movie production studio
183 Movie theater
181 Movie theater with stage
429 Multifamily dwelling
152 Museum
539 Music store

N

557 Nail salon

679 Natural gas well
700 Newspaper publishing
549 Newspaper stand, shop
162 Nightclub
615 Nuclear powerplant
211 Nursery school
464 Nurses' quarters
311 Nursing home

O

941 Ocean
599 Office, business (incl. administrative, attorney's, insurance carrier, labor organization, real estate, trade association)
342 Office: dentist, doctor, oral surgeon
629 Office incidental to laboratory facility
300 Office, veterinary, research (not a laboratory)
982 Oil field
679 Oil well
419 One-family dwelling
181 Opera house
549 Optical goods sales
342 Oral surgeon's office
655 Orchard
926 Outbuilding (not garage or shed)
808 Outbuilding, storage
124 Outdoor area with recreational equipment
926 Outhouse
341 Outpatient clinic
807 Outside material storage area
849 Outside storage tank
921 Overpass

P

539 Paint store
700 Papermill
938 Park
935 Park, camping trailer/recreational vehicle, with utilities
965 Parking area, uncovered
881 Parking garage, detached from residence
882 Parking garage, commercial, general vehicle
171 Passenger terminal, airport
173 Passenger terminal, bus
898 Passenger terminal, marine
174 Passenger terminal: rail, rapid transit, subway
931 Pasture
549 Pawn shop
331 Pediatric hospital
361 Penitentiary

Property Use Codes (Cont'd)

529 Shoe store
 557 Shop: barber, beauty
 549 Shop, specialty
 816 Silo
 419 Single-family dwelling
 115 Skateboard park
 114 Skating rink, ice
 115 Skating rink, roller
 700 Slaughterhouse
 161 Snack bar
 141 Social club
 462 Sorority house
 549 Specialty shop
 123 Sports arena, field, stadium
 559 Sporting goods store
 819 Stable
 123 Stadium
 174 Station, transit
 549 Stationery shop
 154 Statue
 614 Steam-generating plant
 819 Stockyard
 882 Storage, commercial vehicle
 800 Storage, explosives
 819 Storage, livestock
 807 Storage, outside material
 849 Storage, outside tank
 880 Storage, vehicle (incl. aircraft, boat; not parking garage)
 891 Storage, warehouse (not refrigerated storage)
 839 Storage: locker, refrigerated
 899 Storage unit: self-, mini-
 539 Store: antique, appliance, furniture, hardware, music, paint, wallpaper, video
 519 Store: bakery, candy, dairy, grocery, liquor
 529 Store: clothing, shoe, wearing apparel
 511 Store, convenience
 581 Store: department, discount, catalog, drug
 559 Store, recreational (incl. hobby, toy, pet, sporting goods, photographic supply, garden supply, lumber supply, fireworks)
 549 Store, specialty (incl. ammunition, book, china, florist, jewelry, optical, pharmacy, stationery, newspaper, tobacco)
 946 Stream
 963 Street, commercial
 962 Street, residential
 186 Studio, film or movie production
 185 Studio, radio and television
 322 Substance abuse recovery center
 174 Subway station
 519 Supermarket

162 Supper club
 116 Swimming pool, indoor or outdoor
 952 Switchyard
 131 Synagogue

T

849 Tank storage, gas
 557 Tanning salon
 162 Tavern
 973 Taxiway, aircraft
 926 Telephone booth
 639 Television facility
 185 Television studio
 131 Temple
 429 Tenement
 142 Tennis club
 171 Terminal, airport
 173 Terminal, bus
 898 Terminal, marine
 174 Terminal: rail, rapid transit, subway
 700 Textile processing, manufacturing
 529 Textile, wearing apparel sales
 162 Theater, dinner
 183 Theater, drive-in
 181 Theater, live performance
 183 Theater, movie
 669 Timberland
 579 Tire store
 700 Tobacco processing
 549 Tobacco sales
 926 Toll booth
 808 Tool shed
 429 Townhouse
 559 Toy store
 121 Track, running, indoor
 599 Trade association office
 926 Tramway, aerial
 642 Transformer, electrical
 921 Trestle
 922 Tunnel
 419 Two-family dwelling

U

922 Underground passage
 926 Underground shelter
 241 University building, classroom
 642 Utility pole
 983 Utility right-of-way

Property Use Codes (Cont'd)

V

| | |
|-----|--|
| 936 | Vacant lot |
| 700 | Vehicle assembly, manufacturing |
| 571 | Vehicle fueling station |
| 965 | Vehicle parking area, uncovered |
| 882 | Vehicle parking, commercial, general vehicle |
| 880 | Vehicle storage: aircraft, boat (not parking garage) |
| 593 | Veterinary office |
| 113 | Video arcade |
| 539 | Video store |
| 241 | Vocational school |

W

| | |
|-----|--|
| 549 | Wallpaper store |
| 891 | Warehouse |
| 647 | Water utility (incl. collection, distribution, storage, and treatment) |
| 700 | Wearing apparel manufacturing |
| 529 | Wearing apparel store |
| 898 | Wharf |
| 669 | Wildland preserve |
| 569 | Window washing service |
| 669 | Woodland |

Y

| | |
|-----|---|
| 143 | Yacht club |
| 938 | Yard, residential |
| 449 | YMCA, YWCA, with sleeping facilities |
| 141 | YMCA, YWCA, without sleeping facilities |

Z

| | |
|-----|-----|
| 938 | Zoo |
|-----|-----|

On-Site Materials or Products Codes

A

| | |
|-----|--|
| 628 | Abrasives |
| 233 | Accessories: backpacks, belts, briefcases, purses, satchels, wallets |
| 231 | Accessories: jewelry, watches |
| 232 | Accessories: luggage, suitcases |
| 517 | Adhesives |
| 134 | Agriculture, crops (not grain) |
| 132 | Agriculture: feed, grain, seed |
| 138 | Agriculture, fertilizer |
| 133 | Agriculture, hay, straw |
| 135 | Agriculture, livestock |

| | |
|-----|--|
| 137 | Agriculture, pesticides |
| 136 | Agriculture, pets |
| 131 | Agriculture: trees, plants, flowers |
| 831 | Aircraft: airplanes |
| 832 | Aircraft: helicopters |
| 831 | Airplanes |
| 121 | Alcoholic beverages |
| 811 | All terrain vehicles (ATVs) |
| 642 | Aluminum products |
| 932 | Ammunition |
| 118 | Animal fat |
| 332 | Animal skins, fur |
| 331 | Animal skins, leather |
| 712 | Answering machines |
| 921 | Antiques |
| 711 | Appliances, electronics: appliances |
| 713 | Appliances, electronics: electronic media |
| 712 | Appliances, electronics: electronic supplies |
| 714 | Appliances, electronics: photographic supplies |
| 943 | Art supplies |
| 943 | Artwork |
| 516 | Asphalt |
| 813 | Automobile parts (not tires) |
| 811 | Automobiles |

B

| | |
|-----|-------------------------|
| 233 | Backpacks |
| 111 | Baked goods |
| 911 | Barrels |
| 225 | Beauty supply |
| 213 | Bedding |
| 242 | Beds |
| 112 | Beef, meat products |
| 121 | Beer |
| 233 | Belts |
| 121 | Beverages, alcoholic |
| 122 | Beverages, nonalcoholic |
| 851 | Bicycles (incl. tandem) |
| 811 | Bikes, mini |
| 821 | Boats |
| 412 | Books |
| 911 | Bottles |
| 911 | Boxes |
| 622 | Building supplies |
| 233 | Briefcases |
| 811 | Buses |
| 522 | Butane |
| 113 | Butter |

On-Site Materials or Products Codes (Cont'd)

C

| | |
|-----|--|
| 714 | Cameras |
| 811 | Camper trailers |
| 945 | Camping products |
| 821 | Canoes |
| 415 | Cardboard |
| 413 | Cards, greeting |
| 613 | Carpentry tools |
| 631 | Carpets |
| 811 | Carts, golf |
| 713 | Cassette tapes |
| 136 | Cats |
| 622 | Cement mix |
| 633 | Ceramic tile |
| 245 | Ceramics |
| 117 | Cereals, packaged |
| 531 | Charcoal |
| 113 | Cheese |
| 543 | Chemicals, drugs: cleaning supplies |
| 541 | Chemicals, drugs: hazardous chemicals |
| 545 | Chemicals, drugs: illegal drugs |
| 542 | Chemicals, drugs: nonhazardous chemicals |
| 544 | Chemicals, drugs: pharmaceuticals |
| 245 | China |
| 952 | China, restaurant supplies |
| 712 | Circuit boards |
| 543 | Cleaning supplies |
| 243 | Clocks |
| 214 | Cloth |
| 221 | Clothes, wearable products |
| 532 | Coal |
| 534 | Coke |
| 922 | Collectibles |
| 225 | Cologne |
| 513 | Combustible liquid, including heating oil |
| 643 | Combustible metal products (magnesium, titanium) |
| 712 | Communications equipment |
| 713 | Compact disks (CD-ROMs) |
| 712 | Computers |
| 622 | Construction and home improvement products |
| 628 | Construction supplies, abrasives |
| 622 | Construction supplies, construction and home improvement |
| 626 | Construction supplies, electrical parts |
| 629 | Construction supplies, fencing |
| 621 | Construction supplies, hardware products |
| 627 | Construction supplies, insulation |
| 625 | Construction supplies: lighting fixtures, lamps |
| 623 | Construction supplies: pipes, fittings |
| 624 | Construction supplies, stone-working materials |
| 812 | Construction vehicles |
| 911 | Containers, packing materials: bottles, barrels, boxes |

| | |
|-----|---|
| 912 | Containers, packing materials: packing material |
| 913 | Containers, packing materials: pallets |
| 118 | Cooking grease |
| 416 | Copier paper |
| 421 | Cordage |
| 313 | Cork |
| 225 | Cosmetics |
| 321 | Cotton |
| 942 | Crafts |
| 134 | Crops (not grain) |
| 211 | Curtains |

D

| | |
|-----|--|
| 113 | Dairy products |
| 116 | Delicatessen products: meat, poultry, fish |
| 721 | Dental supplies |
| 511 | Diesel fuel |
| 952 | Dinnerware, restaurant supplies |
| 961 | Discarded material, junkyard materials |
| 962 | Discarded material, recyclables |
| 963 | Discarded material, trash (not recyclable) |
| 711 | Dishwashers |
| 713 | Disks, computer |
| 136 | Dogs |
| 211 | Drapes |
| 545 | Drugs, illegal |
| 544 | Drugs, legal |

E

| | |
|-----|---------------------|
| 245 | Earthenware |
| 713 | Electronic media |
| 712 | Electronic supplies |
| 933 | Explosives |
| 223 | Eyeglasses |

F

| | |
|-----|---------------------------------|
| 213 | Fabrics, bedding |
| 214 | Fabrics: cloth, yarn, dry goods |
| 211 | Fabrics: curtains, drapes |
| 212 | Fabrics, linens |
| 811 | Farm vehicles |
| 118 | Fat, cooking |
| 132 | Feed |
| 629 | Fencing, fence supplies |
| 138 | Fertilizer |
| 344 | Fiberglass |
| 321 | Fibers, cotton |
| 323 | Fibers, silk |
| 322 | Fibers, wool |
| 714 | Film, photographic |

On-Site Materials or Products Codes (Cont'd)

625 Light fixtures
 841 Light rail
 625 Lighting
 212 Linens
 632 Linoleum
 121 Liquor
 135 Livestock
 522 LP gas
 232 Luggage
 311 Lumber

M

612 Machine parts
 611 Machinery, tools: industrial machinery
 612 Machinery, tools: machine parts
 613 Machinery, tools: tools (power and hand)
 411 Magazines
 643 Magnesium products
 225 Makeup (cosmetics)
 242 Mattress
 112 Meat products
 116 Meat, deli products
 722 Medical supplies
 721 Medical, laboratory products: dental supplies
 725 Medical, laboratory products: laboratory supplies
 722 Medical, laboratory products: medical supplies
 723 Medical, laboratory products: optical products
 724 Medical, laboratory products: veterinary supplies
 923 Merchandise, used
 643 Metal products, combustible (incl. magnesium, titanium)
 641 Metal products: iron, steel
 642 Metal products, nonferrous metal (incl. aluminum)
 811 Minibikes
 935 Missiles
 951 Mixed sales products, office supplies
 952 Mixed sales products, restaurant supplies
 841 Monorails
 811 Motor homes
 514 Motor oil
 811 Motor vehicles: automobiles, trucks, buses, recreational vehicles, riding mowers, farm vehicles
 812 Motor vehicles, construction
 813 Motor vehicles, parts (not tires)
 814 Motor vehicles, tires
 811 Motorcycles
 811 Mowers, lawn (riding)
 932 Munitions
 941 Musical instruments

N

416 Napkins
 521 Natural gas
 411 Newspapers
 122 Nonalcoholic beverages
 642 Nonferrous metal products (incl. aluminum)
 542 Nonhazardous chemicals
 851 Nonmotorized vehicles
 132 Nuts

O

951 Office supplies
 513 Oil, heating
 515 Oil, heavy
 514 Oil, motor
 723 Optical products
 932 Ordnance
 932 Ordnance, explosives, fireworks: ammunition
 933 Ordnance, explosives, fireworks: explosives
 934 Ordnance, explosives, fireworks: fireworks
 931 Ordnance, explosives, fireworks: guns
 935 Ordnance, explosives, fireworks: rockets, missiles
 341 Ore
 945 Outdoor products

P

416 Packaged paper products: stationery, copier paper, napkins, toilet paper.
 912 Packing materials
 635 Paint
 913 Pallets
 412 Paper products, books
 415 Paper products, cardboard
 413 Paper products, greeting cards
 411 Paper products: newspapers, magazines
 416 Paper products: packaged paper, stationery
 414 Paper products, rolled paper
 416 Paper towels
 533 Peat
 225 Perfume
 821 Personal watercraft
 137 Pesticides
 136 Pets
 544 Pharmaceuticals
 714 Photographic film, supplies
 623 Pipes
 131 Plants
 343 Plastics
 623 Plumbing supplies
 112 Pork, meat products

On-Site Materials or Products Codes (Cont'd)

| | | | |
|-----|---|-----|---------------------------------|
| 245 | Pottery | 963 | Scrap (not recyclable) |
| 116 | Poultry, deli products | 132 | Seed |
| 112 | Poultry, meat products | 821 | Ships |
| 613 | Power tools | 222 | Shoes, wearable products |
| 921 | Previously owned products, antiques | 323 | Silk |
| 922 | Previously owned products, collectibles | 246 | Silverware |
| 923 | Previously owned products, used merchandise (e.g., flea market goods) | 952 | Silverware, restaurant supplies |
| 114 | Produce | 811 | Snowmobiles |
| 522 | Propane | 531 | Solid fuel, coal type: charcoal |
| 314 | Pulp | 532 | Solid fuel, coal type: coal |
| 233 | Purses | 534 | Solid fuel, coal type: coke |
| | | 533 | Solid fuel, coal type: peat |
| | | 115 | Spices (not salt) |
| | | 944 | Sporting goods |
| | | 416 | Stationery |
| | | 641 | Steel products |
| | | 712 | Stereos |
| | | 245 | Stoneware |
| | | 624 | Stone-working materials |
| | | 711 | Stoves |
| | | 133 | Straw |
| | | 841 | Subway |
| | | 115 | Sugar |
| | | 232 | Suitcase |

R

| | |
|-----|--|
| 551 | Radioactive materials |
| 712 | Radios |
| 842 | Rail equipment |
| 841 | Rail: trains, light rail |
| 841 | Rapid transit |
| 344 | Raw materials, other: fiberglass |
| 341 | Raw materials, other: ore |
| 343 | Raw materials, other: plastics |
| 342 | Raw materials, other: rubber |
| 345 | Raw materials, other: salt |
| 712 | Receivers |
| 713 | Records, vinyl |
| 943 | Recreation, arts products: art supplies, artwork |
| 945 | Recreation, arts products: camping, hiking, outdoor products |
| 942 | Recreation, arts products: hobby, crafts |
| 941 | Recreation, arts products: musical instruments |
| 944 | Recreation, arts products: sporting goods |
| 811 | Recreational vehicles |
| 962 | Recyclable materials |
| 711 | Refrigerators |
| 517 | Resin |
| 952 | Restaurant supplies (not food) |
| 935 | Rockets |
| 414 | Rolled paper |
| 421 | Rope |
| 342 | Rubber |
| 963 | Rubbish |
| 631 | Rugs |

S

| | |
|-----|-----------|
| 821 | Sailboats |
| 345 | Salt |
| 628 | Sandpaper |
| 233 | Satchels |
| 315 | Sawdust |
| 311 | Sawn wood |

T

| | |
|-----|-------------------------|
| 713 | Tapes: cassette, video |
| 517 | Tar |
| 712 | Telephones |
| 712 | Televisions |
| 633 | Tile, ceramic |
| 632 | Tile, linoleum |
| 312 | Timber |
| 814 | Tires |
| 643 | Titanium products |
| 134 | Tobacco crops |
| 416 | Toilet paper |
| 226 | Toiletries |
| 613 | Tools, power and hand |
| 942 | Toys |
| 811 | Trailers, camper |
| 841 | Trains |
| 626 | Transformers |
| 963 | Trash (not recyclable) |
| 131 | Trees |
| 813 | Truck parts (not tires) |
| 811 | Trucks |
| 851 | Tricycles |
| 421 | Twine |

On-Site Materials or Products Codes (Cont'd)

| U | | W | |
|----------|-------------------------------|----------|--|
| 851 | Unicycles | 233 | Wallets |
| 923 | Used merchandise | 634 | Wallpaper |
| 952 | Utensils, restaurant supplies | 231 | Watches |
| | | 821 | Watercraft |
| V | | 221 | Wearable products, clothes |
| 711 | Vacuum cleaners | 223 | Wearable products, eyeglasses |
| 114 | Vegetables | 222 | Wearable products, footwear |
| 813 | Vehicle parts (not tires) | 225 | Wearable products: perfumes, colognes, cosmetics |
| 814 | Vehicle tires | 226 | Wearable products, toiletries |
| 812 | Vehicles, construction | 121 | Wine (incl. wine coolers) |
| 811 | Vehicles, farm | 626 | Wire, electrical |
| 851 | Vehicles, nonmotorized | 315 | Wood chips |
| 811 | Vehicles, recreational | 313 | Wood products, cork |
| 724 | Veterinary supplies | 311 | Wood products: lumber, sawn wood |
| 712 | Video cassette recorders | 314 | Wood products, pulp |
| 713 | Video tapes | 315 | Wood products: sawdust, wood chips |
| | | 312 | Wood products, timber |
| | | 322 | Wool |
| | | Y | |
| | | 214 | Yarn |

Area of Fire Origin and Specific Location at Time of Injury Codes

| A | | | |
|----------|---|----------|--|
| 55 | Air conditioning duct | 44 | Bank vault |
| 67 | Air enclosure, pressurized | 23 | Bar area |
| 53 | Air shaft | 28 | Barber shop |
| 85 | Aircraft cockpit | 22 | Barracks, >5 persons |
| 11 | Arena, assembly area with fixed seats, >100 persons | 43 | Basement, storage |
| 16 | Art gallery | 36 | Basketball court, stage area |
| 46 | Ash pit | 25 | Bathroom |
| 11 | Assembly area with fixed seats, >100 persons | 45 | Bay, loading |
| 13 | Assembly area without fixed seats, <100 persons | 28 | Beauty salon |
| 12 | Assembly area without fixed seats, >100 persons | 21 | Bedroom, <5 persons |
| 38 | Assembly area, manufacturing | 22 | Bedroom, >5 persons |
| 73 | Assembly, ceiling and floor | 23 | Beverage service area |
| 21 | Attic, sleeping | 41 | Bin, storage |
| 43 | Attic, storage | 62 | Boiler room |
| 74 | Attic, vacant | 92 | Boulevard, on or near |
| 11 | Auditorium, assembly area with fixed seats, >100 persons | 12 | Bowling alley, assembly area without fixed seats, >100 persons |
| 92 | Avenue, on or near | 36 | Boxing ring, stage area |
| 78 | Awning | 85 | Bridge, ship |
| B | | C | |
| 36 | Backstage | 81 | Cab of truck |
| 72 | Balcony, exterior | 55 | Cable duct |
| 12 | Ballroom, assembly area without fixed seats, >100 persons | 23 | Cafeteria |
| | | 23 | Canteen area |
| | | 82 | Cargo area, vehicle |

Area/Location Codes (Cont'd)

| | | | |
|----|--|----|--|
| 47 | Carport | 33 | Dentist's treatment room |
| 73 | Ceiling and floor assembly | 23 | Dining room |
| 74 | Ceiling and roof assembly | 56 | Display window |
| 66 | Cell | 45 | Dock, loading |
| 11 | Chapel, assembly area with fixed seats, >100 persons | 33 | Doctor's treatment room |
| 25 | Checkroom | 22 | Dormitory, >5 persons |
| 38 | Chemical reactor | 36 | Dressing room, stage area |
| 74 | Church steeple | 92 | Driveway |
| 11 | Church, assembly area with fixed seats, >100 persons | 55 | Duct: cable, heating, exhaust, air conditioning, ventilation |
| 54 | Chute: laundry, mail | 51 | Dumbwaiter shaft |
| 46 | Chute: rubbish, trash, waste (incl. compactor and garbage areas) | | |
| 11 | Classroom, assembly area with fixed seats, >100 persons | | |
| 13 | Classroom, assembly area without fixed seats, <100 persons | 01 | Egress, means of: corridor, hallway, mall |
| 25 | Cloak room | 05 | Egress, means of: entranceway, lobby |
| 42 | Closet | 02 | Egress, means of: exterior stairway, fire escape |
| 38 | Coating, painting area: production | 04 | Egress, means of: interior/exterior escalator |
| 85 | Cockpit | 03 | Egress, means of: interior stairway |
| 41 | Cold storage room | 63 | Electrical panel area |
| 14 | Common room | 35 | Electronic equipment area |
| 46 | Compactor | 61 | Elevator machinery room |
| 35 | Computer room | 51 | Elevator shaft |
| 73 | Concealed floor/ceiling space | 93 | Enclosed porch |
| 74 | Concealed roof/ceiling space | 67 | Enclosure with pressurized air |
| 75 | Concealed wall space | 83 | Engine area |
| 52 | Conduit | 61 | Engine room |
| 96 | Construction area | 05 | Entranceway |
| 41 | Container, storage | 04 | Escalator, exterior and interior |
| 46 | Container: rubbish, trash, waste (incl. compactor and garbage areas) | 28 | Exercise area |
| 85 | Control area (separate) of transportation equipment | 55 | Exhaust duct |
| 35 | Control room or center | 16 | Exhibit hall |
| 58 | Conveyor | 86 | Exposed vehicle surface |
| 24 | Cooking area | 72 | Exterior balcony |
| 01 | Corridor | 04 | Exterior escalator |
| 93 | Courtyard | 02 | Exterior ramp, stairway |
| 71 | Crawl space | 77 | Exterior roof surface |
| 74 | Crawl space above top story | 76 | Exterior trim |
| 73 | Crawl space between stories | 86 | Exterior vehicle surface |
| 74 | Cupola | 76 | Exterior wall surface |
| | | | |
| | D | | |
| 12 | Dance hall, assembly area without fixed seats, >100 persons | 14 | Family room |
| 32 | Dark room | 94 | Farmland |
| 35 | Data processing center | 94 | Field |
| 43 | Dead storage | 02 | Fire escape |
| 93 | Deck | 33 | First aid area (minor procedures) |
| 14 | Den | 73 | Floor and ceiling assembly |
| | | 05 | Foyer |
| | | 84 | Fuel line, tank |
| | | 62 | Furnace room |
| | | | |
| | | | E |
| | | | Egress, means of: corridor, hallway, mall |
| | | | Egress, means of: entranceway, lobby |
| | | | Egress, means of: exterior stairway, fire escape |
| | | | Egress, means of: interior/exterior escalator |
| | | | Egress, means of: interior stairway |
| | | | Electrical panel area |
| | | | Electronic equipment area |
| | | | Elevator machinery room |
| | | | Elevator shaft |
| | | | Enclosed porch |
| | | | Enclosure with pressurized air |
| | | | Engine area |
| | | | Engine room |
| | | | Entranceway |
| | | | Escalator, exterior and interior |
| | | | Exercise area |
| | | | Exhaust duct |
| | | | Exhibit hall |
| | | | Exposed vehicle surface |
| | | | Exterior balcony |
| | | | Exterior escalator |
| | | | Exterior ramp, stairway |
| | | | Exterior roof surface |
| | | | Exterior trim |
| | | | Exterior vehicle surface |
| | | | Exterior wall surface |
| | | | |
| | | | F |
| | | | Family room |
| | | | Farmland |
| | | | Field |
| | | | Fire escape |
| | | | First aid area (minor procedures) |
| | | | Floor and ceiling assembly |
| | | | Foyer |
| | | | Fuel line, tank |
| | | | Furnace room |

Area/Location Codes (Cont'd)

| | |
|----|--|
| 43 | Pantry |
| 94 | Park |
| 92 | Parking lot, on or near |
| 81 | Passenger area of transportation equipment |
| 94 | Pasture |
| 21 | Patient room, <5 persons |
| 22 | Patient room, >5 persons |
| 93 | Patio |
| 36 | Performance area, stage |
| 28 | Personal service area |
| 32 | Photography area |
| 52 | Pipe shaft |
| 93 | Porch, enclosed |
| 72 | Porch, unenclosed |
| 25 | Portable toilet |
| 25 | Powder room |
| 67 | Pressurized air enclosure |
| 32 | Printing area |
| 21 | Prison cell, <5 persons |
| 25 | Privy |
| 38 | Processing or machine area |
| 37 | Projection room |
| 92 | Public way, on or near |
| 61 | Pump room |

R

| | |
|----|--|
| 35 | Radar room |
| 91 | Railroad right-of-way, on or near |
| 02 | Ramp, exterior |
| 03 | Ramp, interior |
| 94 | Range land |
| 45 | Receiving area |
| 44 | Records storage room |
| 34 | Recovery room, surgery area |
| 14 | Recreation room |
| 61 | Refrigeration room |
| 96 | Renovation area |
| 65 | Repair shop or area |
| 25 | Restroom |
| 91 | Right-of-way, on or near railroad |
| 12 | Roller skating rink, assembly area without fixed seats, >100 persons |
| 74 | Roof and ceiling assembly |
| 74 | Roof member |
| 77 | Roof surface, exterior |
| 46 | Rubbish chute, container (incl. compactor and garbage areas) |
| 83 | Running gear |

S

| | |
|----|---|
| 15 | Sales area |
| 25 | Sauna area |
| 53 | Shaft: air, light |
| 51 | Shaft: dumbwaiter, elevator |
| 52 | Shaft: pipe, ventilation |
| 85 | Ship bridge |
| 45 | Shipping area |
| 65 | Shop: maintenance, paint, repair, work |
| 25 | Shower room |
| 15 | Showroom |
| 14 | Sitting room |
| 21 | Sleeping area, <5 persons |
| 22 | Sleeping area, >5 persons |
| 75 | Space, concealed wall |
| 73 | Space, crawl, between stories |
| 71 | Space, crawl, substructure |
| 37 | Spotlight area |
| 65 | Spray painting shop or area |
| 38 | Spray painting, production |
| 36 | Stage |
| 37 | Stage light area |
| 02 | Stairway, exterior |
| 03 | Stairway, interior |
| 74 | Steeple |
| 41 | Storage (bin, tank) |
| 43 | Storage area (basement, tool room, supply room) |
| 47 | Storage area, vehicle (carport, garage) |
| 82 | Storage area, vehicle (trunk) |
| 44 | Storage vault |
| 15 | Store |
| 92 | Street, on or near |
| 98 | Structural area, vacant |
| 71 | Substructure area or space |
| 43 | Supplies or tools: storage |
| 34 | Surgery area (major procedures) |
| 33 | Surgery area (minor procedures) |
| 17 | Swimming pool |
| 63 | Switchgear area |
| 11 | Synagogue, assembly area with fixed seats, >100 persons |

T

| | |
|----|--|
| 84 | Tank, fuel |
| 41 | Tank, storage |
| 35 | Telephone booth, equipment |
| 14 | Television room |
| 11 | Temple, assembly area with fixed seats, >100 persons |
| 93 | Terrace |
| 66 | Test cell |

Area/Location Codes (Cont'd)

| | | | |
|----|--|----|--|
| 11 | Theater, assembly area with fixed seats, >100 persons | 84 | Vehicle fuel tank, line |
| 92 | Thoroughfare, on or near | 81 | Vehicle passenger area |
| 25 | Toilet, portable | 83 | Vehicle running gear, wheel area |
| 43 | Tool room, storage | 47 | Vehicle storage area (carport, garage) |
| 63 | Transformer vault | 82 | Vehicle, cargo/trunk area |
| 85 | Transportation equipment control area | 55 | Ventilation duct |
| 84 | Transportation equipment fuel area | 52 | Ventilation shaft |
| 46 | Trash chute, container (incl. compactor and garbage areas) | | |
| 33 | Treatment: first aid area, surgery area (minor procedures) | | |
| 82 | Trunk area, vehicle | | |
| | U | | W |
| 96 | Under construction and renovation areas | 14 | Waiting room |
| 72 | Unenclosed porch | 75 | Wall assembly |
| 52 | Utility conduit | 76 | Wall surface, exterior |
| | | 22 | Ward, >5 persons |
| | | 26 | Wash room |
| | | 46 | Waste chute, container (incl. compactor and garbage areas) |
| | | 62 | Water heater area |
| | | 65 | Welding area for maintenance |
| | | 38 | Welding with production |
| | | 83 | Wheel area |
| | | 95 | Wildland |
| | | 56 | Window, display |
| | | 95 | Woods |
| | | 38 | Workroom, production |
| | | 65 | Workshop or area |
| | V | | |
| 94 | Vacant lot | | |
| 98 | Vacant structural area | | |
| 44 | Vault: records, storage | | |
| 63 | Vault, transformer | | |
| 85 | Vehicle control area, non-passenger | | |
| 83 | Vehicle engine area | | |
| 86 | Vehicle exterior/exposed surface | | |

Item First Ignited and Item Contributing Most to Flame Spread Codes

| | | | |
|----|--|----|---|
| | A | | |
| 65 | Accelerant | 51 | Barrel |
| 18 | Acoustical insulation within structural area | 51 | Basket |
| 16 | Acoustical tile, ceiling | 18 | Batts, acoustical/thermal insulation within structural area |
| 93 | Adhesive | 32 | Bedding |
| 61 | Aerosol | 83 | Belt: conveyor, drive |
| 71 | Agricultural crop | 22 | Bench, not upholstered |
| 74 | Animal | 23 | Bench, work |
| 34 | Apparel not on person | 43 | Billboard |
| 35 | Apparel on person | 32 | Blanket |
| 25 | Appliance housing, casing | 36 | Blind |
| 61 | Atomized liquid | 13 | Blinds, external |
| 46 | Awning | 18 | Boards,acoustical/thermal insulation within structural area |
| | | 91 | Book |
| | B | 23 | Bookcase |
| 51 | Bag | 51 | Box |
| 56 | Baled goods, material | 26 | Broom |
| 86 | Barbed wire fence | 73 | Brush, heavy vegetation |

Items Ignited Codes (Cont'd)

| | | | |
|----------|---|----------|---|
| 26 | Brush: paint, dusting | 66 | Duct |
| 57 | Bulk storage | 67 | Duct covering (incl. insulating materials whether for acoustical or thermal purposes, and whether inside or outside the duct) |
| C | | | |
| 23 | Cabinet, cabinetry | 94 | Dust |
| 81 | Cable insulation | 26 | Duster |
| 46 | Canopy | 88 | Dynamite |
| 14 | Carpet | E | |
| 51 | Carton, case | 12 | Eave |
| 25 | Casing, appliance | 32 | Electric blanket |
| 16 | Ceiling covering, lining | 81 | Electrical insulation, wire |
| 72 | Chaff | 25 | Equipment housing |
| 22 | Chair, not upholstered | 68 | Evaporative cooler pads |
| 21 | Chair, upholstered | 94 | Excelsior |
| 23 | Chest of drawers | 88 | Explosives |
| 86 | Chicken wire fence | 11 | Exterior roof covering, surface, finish |
| 95 | Chimney film or residue | 13 | Exterior trim (incl. doors, porches, platforms) |
| 44 | Chips, wood | 12 | Exterior wall covering, surface, finish |
| 41 | Christmas tree | F | |
| 26 | Cleaning cloth, fluids, supplies | 37 | Fabric goods |
| 26 | Cleaning utensils | 59 | Fabric, rolled |
| 34 | Clothing not on person | 77 | Feathers, not on bird or animal |
| 35 | Clothing on person | 86 | Fence |
| 32 | Comforter | 87 | Fertilizer |
| 72 | Compost | 94 | Fiber |
| 66 | Conduit | 18 | Fibers, acoustical/thermal insulation within structural area |
| 67 | Conduit covering (incl. insulating materials whether for acoustical or thermal purposes, and whether inside or outside the conduit) | 92 | Files, paper |
| 51 | Container | 23 | Filing cabinet |
| 83 | Conveyor belt | 95 | Film: paint, resin, chimney residue |
| 76 | Cooking materials (incl. edible materials for man or animal) (not cooking utensils) | 68 | Filter |
| 54 | Cord | 88 | Firecracker, fireworks |
| 21 | Couch | 74 | Fish |
| 51 | Crate | 65 | Flammable gas/liquid, fuels (not contained) |
| 71 | Crops | 64 | Flammable gas/liquid, in or escaping from container or pipe |
| 23 | Cupboard | 62 | Flammable gas/liquid, in or escaping from engine or burner |
| 36 | Curtain | 63 | Flammable gas/liquid, in or escaping from final container or pipe before engine or burner |
| D | | | |
| 21 | Davenport | 14 | Floor covering |
| 42 | Decoration | 14 | Flooring |
| 23 | Desk | 26 | Fluids, cleaning |
| 21 | Divan | 73 | Forest |
| 13 | Door, external | 74 | Fowl |
| 23 | Drainboard | 17 | Framing: building, structural |
| 36 | Drapery | 71 | Fruit crop |
| 23 | Dresser | 62 | Fuel, flammable, from engine or burner |
| 83 | Drive belt | | |

Type of Material First Ignited *and* Type of Material Contributing Most to Flame Spread Codes

| | | | |
|----------|--|----------|--|
| A | | 25 | Coal oil |
| 22 | Acetic acid: glacial | 67 | Coated paper |
| 22 | Acetone | 55 | Cocofilm |
| 14 | Acetylene gas | 55 | Coconut fiber |
| 22 | Acrylic acid | 56 | Coke |
| 34 | Adhesive | 36 | Combustible metal: magnesium, potassium, sodium, titanium, zirconium |
| 22 | Alcohol, ethyl | 34 | Contact cement |
| 24 | Alcohol, propyl | 27 | Cooking oil |
| 37 | Ammonium nitrate | 52 | Cork |
| 13 | Anesthetic gas | 55 | Corn |
| 53 | Animal skin | 27 | Corn oil |
| 34 | Asphalt | 55 | Cotton |
| 86 | Asphalt-treated material (siding) | 71 | Cotton yarn, fabric, finished goods |
| B | | 26 | Cottonseed oil |
| 55 | Barley | 34 | Creosote |
| 65 | Beaverboard | 26 | Creosote oil |
| 10 | Benzene | 20 | Crude petroleum |
| 10 | Benzol | D | |
| 34 | Bitumen | 25 | Diesel fuel |
| 71 | Blends: fiber, fabrics | E | |
| 56 | Briquettes | 34 | Elemi |
| 22 | Butadiene | 21 | Ether |
| 12 | Butane | 21 | Ethyl ether |
| 31 | Butter | 10 | Ethylene |
| 24 | Butyl alcohol | 10 | Ethylene oxide |
| C | | 61 | Excelsior |
| 27 | Canola oil | 37 | Explosives |
| 71 | Canvas, non-waterproof | F | |
| 34 | Carbon | 71 | Fabric, finished goods |
| 56 | Carbon black briquettes | 77 | Fabric: plastic coated, vinyl |
| 10 | Carbon disulfide | 31 | Fat |
| 10 | Carbon monoxide | 55 | Feathers |
| 68 | Cardboard | 55 | Felt |
| 67 | Cellulose | 71 | Fiber |
| 34 | Cement, contact | 55 | Fiber: natural, silk, vegetable |
| 56 | Charcoal briquettes | 65 | Fiber, wood |
| 65 | Chipboard | 65 | Fiberboard |
| 61 | Chips, wood | 71 | Finished goods: fabric, fiber |
| 21 | Class IA flammable liquid | 27 | Fish oil |
| 22 | Class IB flammable liquid (not gasoline) | 55 | Flax |
| 24 | Class IC flammable liquid | 57 | Flour |
| 25 | Class II combustible liquid | 57 | Food (not fat or grease) |
| 26 | Class IIIA combustible liquid | 25 | Fuel oil No. 1 and No. 2 |
| 27 | Class IIIB combustible liquid | | |
| 71 | Cloth | | |
| 56 | Coal | | |

Type of Material Codes (Cont'd)

26 Fuel oil No. 4, No. 5, and No. 6
 74 Fur fabric, finished goods
 26 Furfural

G

14 Gas, acetylene
 13 Gas, anesthetic
 12 Gas, LP
 11 Gas, natural
 23 Gasoline
 34 Gelatin
 34 Glue
 55 Grain
 31 Grease, food
 32 Grease, non-food
 67 Ground-up processed paper used as thermal insulation

H

76 Hair, human
 75 Hairpiece
 65 Hardboard
 54 Hay
 55 Hemp
 55 Hessian
 55 Hops
 76 Human hair
 27 Hydraulic fluid
 22 Hydrazine
 15 Hydrogen

I

67 Insulation, newsprint
 61 Insulation, processed wood

J

22 Jet fuel, JP-4
 25 Jet fuel, JP-5 and -6
 55 Jute

K

55 Kapok
 34 Kauri
 25 Kerosene

L
 22 Lacquer
 35 Lacquer, applied
 31 Lard
 53 Leather
 81 Linoleum
 27 Linseed oil
 25 Liquid, combustible: Class II
 26 Liquid, combustible: Class IIIA
 27 Liquid, combustible: Class IIIB
 21 Liquid, flammable: Class IA
 22 Liquid, flammable: Class IB
 24 Liquid, flammable: Class IC
 23 Liquid, flammable: gasoline
 12 LP gas
 32 Lubricant grease
 27 Lubricating oil
 63 Lumber, finished

M

36 Magnesium
 71 Man-made fabric, fiber (not fur and silk)
 50 Manure
 31 Margarine
 11 Marsh grass
 36 Metal, combustible: magnesium, potassium, sodium, titanium, zirconium
 11 Methane
 22 Methyl ethyl ketone
 27 Mineral oil

N

22 Naphtha: V.M. & P., regular
 55 Natural fiber
 11 Natural gas
 51 Natural rubber
 67 Newsprint used as thermal insulation
 71 Nylon fabric

O

55 Oats
 27 Oil: canola, cooking, corn, fish, linseed, lubricating, mineral, tallow, transformer, vegetable
 25 Oil: coal, range
 26 Oil: creosote, No. 6 fuel
 82 Oilcloth

P

22 Paint
 35 Paint, applied

Type of Material Codes (Cont'd)

| | | | |
|----|--------------------|----|---------------------------|
| 67 | Paper | 55 | Soy bean |
| 33 | Paraffin | 57 | Starch |
| 65 | Particleboard | 54 | Straw |
| 34 | Paste | 63 | Structural material, wood |
| 56 | Peat | 24 | Styrene |
| 21 | Pentane | 34 | Sulfur |
| 32 | Petroleum jelly | 71 | Synthetic fiber |
| 20 | Petroleum, crude | 41 | Synthetic rubber |
| 26 | Phenol | | |
| 37 | Phosphorus | | |
| 67 | Photographic paper | | |

| | | | |
|----|-----------------------|----|------------------------------------|
| 62 | Pile, wood: round | 31 | Tallow |
| 34 | Pitch | 27 | Tallow oil |
| 41 | Plastic | 34 | Tar |
| 77 | Plastic-coated fabric | 71 | Textile products |
| 64 | Plywood | 67 | Thermal insulation, newsprint |
| 62 | Pole, wood: round | 62 | Timber, round: piles, poles, posts |
| 33 | Polish | 51 | Tire rubber |
| 62 | Post, wood: round | 36 | Titanium |
| 36 | Potassium | 58 | Tobacco |
| 65 | Presswood | 22 | Toluol, toluene |
| 12 | Propane | 75 | Toupee |
| 24 | Propyl alcohol | 27 | Transformer oil |
| 66 | Pulp, wood | 67 | Treated paper |
| | | 24 | Turpentine |

R

| | |
|----|-----------------------------------|
| 38 | Radioactive material |
| 55 | Ramie |
| 25 | Range oil |
| 71 | Rayon |
| 67 | Records, paper |
| 61 | Residue, wood |
| 34 | Resin |
| 86 | Roofing, asphalt |
| 63 | Roofing, wood shingles |
| 34 | Rosin |
| 62 | Round timber: piles, poles, posts |
| 51 | Rubber, natural |
| 41 | Rubber, synthetic |

S

| | |
|----|---------------------------------------|
| 61 | Sawdust |
| 63 | Sawn wood (incl. all finished lumber) |
| 67 | Sensitized paper |
| 61 | Shavings, wood |
| 22 | Shellac |
| 63 | Shingles, wood |
| 53 | Shoe leather |
| 86 | Siding, asphalt |
| 74 | Silk fabric, finished goods |
| 55 | Sisal |
| 53 | Skin, animal |
| 36 | Sodium |
| 37 | Solid chemical (incl. explosives) |
| 34 | Soot |

T

| | |
|----|------------------------------------|
| 31 | Tallow |
| 27 | Tallow oil |
| 34 | Tar |
| 71 | Textile products |
| 67 | Thermal insulation, newsprint |
| 62 | Timber, round: piles, poles, posts |
| 51 | Tire rubber |
| 36 | Titanium |
| 58 | Tobacco |
| 22 | Toluol, toluene |
| 75 | Toupee |
| 27 | Transformer oil |
| 67 | Treated paper |
| 24 | Turpentine |

V

| | |
|----|------------------|
| 22 | Varnish |
| 35 | Varnish, applied |
| 55 | Vegetable fiber |
| 27 | Vegetable oil |
| 10 | Vinyl chloride |
| 77 | Vinyl fabric |

W

| | |
|----|--|
| 67 | Waste paper |
| 33 | Wax |
| 67 | Waxed paper |
| 55 | Wheat |
| 75 | Wig |
| 61 | Wood chips, flour, sawdust, shavings, residue, processed (insulation), structural material |
| 62 | Wood pile, pole, post: round |
| 66 | Wood pulp, fiber |
| 65 | Wood, low-density pressed |
| 63 | Wood, roofing shingles, sawn, finished, split, structural |
| 71 | Wool |

Y

| | |
|----|------|
| 71 | Yarn |
|----|------|

Z

| | |
|----|-----------|
| 36 | Zirconium |
|----|-----------|

Equipment Involved in Ignition *and* Equipment Involved in Release Codes

| | | | |
|-----|--|-----|--|
| | A | | |
| 223 | Adapter, electrical | 841 | Brush, hair |
| 721 | Adding machine | 316 | Buffer |
| 513 | Agricultural elevator, conveyor | 833 | Buffer, floor |
| 341 | Air compressor | 875 | Bug zapper |
| 111 | Air conditioner | 238 | Bulb, electric |
| 881 | Airplane, model | 333 | Bunsen burner |
| 862 | Alarm, burglar | 862 | Burglar alarm |
| 748 | Amplifier, stereo | 333 | Burner, Bunsen |
| 431 | Amusement ride equipment | 523 | Burner, weed |
| 722 | Answering machine | 373 | Butane regulator |
| 444 | Arcade game (not electronic) | | |
| 253 | Arrester, grounding device | | C |
| 871 | Ashtray | 751 | Cable converter box |
| 325 | Asphalt-saturating coating machine | 362 | Cable power transfer equipment |
| 343 | Atomizing equipment (not paint spraying equipment) | 721 | Calculator |
| 747 | Audio speakers | 756 | Camcorder |
| 536 | Auger, post hole | 757 | Camera (incl. digital) |
| 514 | Auger, screw/sweep | 621 | Can opener |
| | | 443 | Candy vending machine |
| | | 635 | Canner, pressure |
| | | 377 | Car washing equipment |
| | B | 371 | Carding machine |
| 851 | Baby bottle warmer | 832 | Carpet cleaner |
| 234 | Ballast, fluorescent lighting | 723 | Cash register |
| 643 | Barbecue grill | 355 | Casting equipment |
| 152 | Baseboard heater (electric/hot water) | 414 | CAT scan imaging equipment |
| 731 | Bass | 142 | Catalytic heater |
| 229 | Battery (all types) | 741 | CD player, audio |
| 228 | Battery charger, rectifier | 712 | CD-ROM device, external |
| 365 | Bearing | 113 | Ceiling fan |
| 411 | Bed, powered | 132 | Central heating unit |
| 362 | Belt, power transfer equipment | 522 | Chain saw |
| 374 | Bench motor | 411 | Chair, powered (incl. dental and medical chairs) |
| 852 | Blanket, electric | 872 | Charcoal lighter |
| 515 | Blender, feed | 228 | Charger, battery |
| 611 | Blender, food | 126 | Chimney: brick, concrete block, concrete block modules, masonry, stone |
| 362 | Block, power transfer equipment | | |
| 532 | Blower, leaf | 125 | Chimney connector |
| 534 | Blower, snow | 127 | Chimney, metal (incl. gas vent flue and stovepipe) |
| 333 | Blowtorch | 533 | Chipper |
| 881 | Boat, model | 242 | Christmas lights |
| 133 | Boiler: power, process, heating | 873 | Cigarette lighter |
| 365 | Brake | 215 | Circuit breaker board |
| 216 | Branch circuit, electrical | 833 | Cleaner, floor |
| 641 | Bread-making machine | 834 | Cleaner, vacuum |
| 126 | Brick chimney | 891 | Clock |
| 637 | Broiler, countertop | 811 | Clothes dryer |
| 831 | Broom, electric | 855 | Clothes iron |
| 533 | Brush grinder | 854 | Clothes steamer |

Equipment Involved Codes (Cont'd)

814 Clothes washing machine
 325 Coating machine
 612 Coffee grinder
 631 Coffee maker
 841 Comb
 511 Combine
 812 Compactor, trash
 341 Compressor, air
 342 Compressor, gas
 711 Computer
 712 Computer CD-ROM device, tape drive
 713 Computer modem, external
 711 Computer modem, internal
 714 Computer monitor
 715 Computer printer
 716 Computer projection device
 125 Connector, chimney or vent
 252 Control device, traffic
 423 Control panel with multiple TV monitors
 210 Converter
 751 Converter, cable
 361 Conveyor (not farm)
 513 Conveyor, farm
 635 Cooker, pressure
 646 Cooktop
 117 Cooler, evaporative
 117 Cooling tower
 724 Copier, large standalone
 715 Copier, multifunctional (fax, scanner)
 371 Cotton gin
 637 Countertop broiler
 346 Crane
 518 Cream separator
 538 Cultivator
 842 Curling iron
 314 Cutting tool, power
 332 Cutting torch

D

622 Dagger
 242 Decorative lights, line voltage (incl. Christmas lights)
 243 Decorative lights, low voltage
 642 Deep fryer
 116 Dehumidifier, portable
 412 Dental equipment, other
 411 Dental powered chair, bed
 231 Desk lamp
 864 Detector, gas
 866 Detector: heat, smoke
 413 Dialysis equipment
 357 Digester

757 Digital camera
 321 Dipper, paint
 651 Dishwasher
 712 Disk drive, external
 356 Distilling equipment
 215 Distribution panel
 861 Door opener, automatic (not garage)
 863 Door opener, automatic garage
 315 Drill, power
 348 Drilling machinery
 537 Driver: post, pile
 217 Dryer receptacle
 811 Dryer, clothes
 845 Dryer, hair
 813 Dryer/Washer combination
 654 Duct: exhaust fan, grease hood
 152 Duct, hot air
 433 Dumbwaiter
 742 DVD device, external

E

525 Edger, lawn
 251 Electric fence
 213 Electric meter
 244 Electric sign
 223 Electrical adapter
 216 Electrical branch circuit
 217 Electrical outlet, receptacle (incl. dryer and stove receptacles)
 211 Electrical power (utility) line (not wire from utility pole to structure)
 212 Electrical service supply wire; wire from utility pole to meter box
 218 Electrical switch, wall-type
 214 Electrical wiring from meter box to circuit breaker board, fuse box, or panelboard
 843 Electrolysis equipment
 451 Electron microscope
 732 Electronic piano
 433 Elevator
 513 Elevator, farm
 375 Engine, internal combustion engine
 748 Equalizer, stereo
 434 Escalator
 117 Evaporative cooler
 654 Exhaust fan
 263 Extension cord
 358 Extractor

Equipment Involved Codes (Cont'd)

| F | | | |
|----------|---------------------------------------|-----|---|
| 113 | Fan | 643 | Grill |
| 113 | Fan, ceiling | 316 | Grinder |
| 654 | Fan, grease duct/hood exhaust | 612 | Grinder, coffee |
| 513 | Farm elevator, conveyor | 515 | Grinder, feed |
| 521 | Farm sprayer | 533 | Grinder: leaf, brush, wood, stump |
| 725 | Fax machine | 219 | Ground-fault interrupter |
| 515 | Feed blender, grinder, mixer | 253 | Grounding device |
| 251 | Fence, electric | 731 | Guitar |
| 752 | Film projector | 892 | Gun |
| 866 | Fire alarm | | |
| 874 | Fire extinguishing equipment | | H |
| 122 | Fireplace, factory-built | 841 | Hair brush |
| 123 | Fireplace, insert/stove | 844 | Hair curler warmer |
| 121 | Fireplace, masonry | 845 | Hair dryer |
| 232 | Flashlight | 235 | Halogen lamp, lighting fixture |
| 714 | Flat-screen computer monitor | 317 | Hammer, power |
| 833 | Floor buffer, cleaner, waxer | 711 | Hard drive, internal |
| 141 | Floor furnace | 512 | Hay processing equipment |
| 231 | Floor lamp | 866 | Heat detector |
| 234 | Fluorescent lighting fixture | 144 | Heat lamp |
| 611 | Food mixer, processor | 152 | Heat pipe |
| 632 | Food warmer | 112 | Heat pump |
| 355 | Forging equipment | 145 | Heat tape |
| 652 | Freezer (separate from refrigerator) | 141 | Heater (not catalytic, oil-filled, or baseboard heater) |
| 656 | Freezer/Refrigerator | 152 | Heater, baseboard (electric/hot water) |
| 433 | Freight elevator | 142 | Heater, catalytic |
| 639 | Frying pan | 132 | Heater, central unit |
| 132 | Furnace, central heating unit | 151 | Heater: hot water, waterbed |
| 141 | Furnace, floor | 143 | Heater, oil-filled |
| 353 | Furnace, industrial | 133 | Heating boiler |
| 131 | Furnace, local heating unit, built-in | 853 | Heating pad |
| 333 | Furnace, plumber's | 124 | Heating stove |
| 215 | Fuse panel board | 351 | Heat-treating equipment |
| | | 643 | Hibachi |
| | | 346 | Hoist |
| | | 242 | Holiday lighting, line voltage |
| | | 373 | Hose connector to gas appliance |
| | | 152 | Hot air duct |
| | | 632 | Hot plate |
| | | 821 | Hot tub |
| | | 152 | Hot water baseboard heater |
| | | 151 | Hot water heater |
| | | 132 | Humidifier (built in to central heating system) |
| | | 131 | Humidifier (built in to local heating system) |
| | | 114 | Humidifier (not built in to heating system) |
| | | 347 | Hydraulic rescue tools |
| | | | I |
| | | 655 | Ice maker (separate from refrigerator) |
| | | 233 | Incandescent lighting fixture |

Equipment Involved Codes (Cont'd)

352 Incinerator
 361 Industrial conveyor
 353 Industrial furnace, oven, kiln
 875 Insect trap
 151 Instant hot water heater
 865 Intercom
 375 Internal combustion engine (nonvehicular)
 225 Inverter
 115 Ionizer
 855 Iron, clothes
 842 Iron, curling

J

317 Jackhammer
 347 Jacking equipment, powered
 893 Jewelry-cleaning machine
 313 Jointer
 611 Juicer

K

633 Kettle
 733 Keyboard, musical
 353 Kiln
 622 Knife
 623 Knife sharpener

L

231 Lamp: desk, floor, oil, portable, tabletop
 235 Lamp, halogen
 144 Lamp, heat
 236 Lamp: sodium, mercury vapor
 243 Landscape lighting, low voltage
 525 Landscape trimmer, edger
 232 Lantern
 742 Laser disk player
 312 Lathe
 524 Lawn mower, powered
 525 Lawn trimmer, edger
 531 Lawn vacuum
 714 LCD monitor
 716 LCD panel
 532 Leaf blower
 533 Leaf chipper, grinder, mulcher
 433 Lift (elevator): passenger, freight
 346 Lift for equipment/materials
 432 Lift, ski
 238 Light bulb
 218 Light switch
 241 Light, night
 237 Light: trouble, work

872 Lighter: charcoal, utility
 873 Lighter: cigarette, pipe
 234 Lighting fixture, fluorescent
 235 Lighting fixture, halogen
 233 Lighting fixture, incandescent
 236 Lighting fixture: sodium, mercury vapor
 253 Lightning rod
 242 Lights, decorative, line voltage (incl. Christmas lights)
 243 Lights, decorative/landscape, low voltage
 514 Loader, silo
 535 Log splitter
 223 Low-voltage transformer (<51 volts)
 373 LP-gas regulator

M

846 Makeup mirror, lighted
 126 Masonry chimney
 410 Medical equipment, other
 414 Medical imaging equipment
 415 Medical monitoring equipment
 411 Medical powered bed, chair
 236 Mercury vapor fixture/lamp (incl. street lights)
 214 Meter box wire to circuit breaker board, fuse box, or panel board
 213 Meter, meter box (electric)
 727 Meter: postage, shipping
 442 Microfiche/Microfilm processing equipment
 441 Microfiche/Microfilm viewing equipment
 451 Microscope, electron
 644 Microwave oven
 517 Milk pasteurizer
 516 Milking machine
 846 Mirror, lighted
 515 Mixer, feed
 611 Mixer, food
 323 Mixing machine, paint
 881 Model vehicles
 713 Modem, external
 711 Modem, internal
 355 Molding equipment
 714 Monitor, computer
 423 Monitoring station, security
 374 Motor (not internal combustion engine)
 375 Motor, internal combustion engine
 524 Mower, lawn (powered)
 414 MRI equipment
 533 Mulcher
 733 Musical keyboard, synthesizer

Equipment Involved Codes (Cont'd)

N

318 Nail gun
373 Natural gas regulator
244 Neon lighting
241 Night light
877 Novelty lighter

O

143 Oil-filled heater
732 Organ
217 Outlet, electrical
645 Oven, cooking
353 Oven, industrial
644 Oven, microwave
222 Overcurrent, disconnect equipment associated with a transformer
752 Overhead projector
416 Oxygen administration equipment

P

321 Paint dipper
322 Paint flow coating machine
323 Paint mixing machine
324 Paint sprayer
215 Panel board (fuse)
726 Paper shredder
433 Passenger elevator
517 Pasteurizer
422 PBX telephone equipment
745 Phonograph
442 Photo processing equipment
757 Photographic camera and equipment
732 Piano
371 Picking machine
537 Pile driver
444 Pinball machine
873 Pipe lighter
152 Pipe, heat
313 Planer
732 Player piano
741 Player, CD (audio)
742 Player, laser disk
745 Player, record
749 Player, tape
261 Plug, detachable from appliance
262 Plug, permanently attached to appliance
333 Plumber furnace
316 Polisher
822 Pool equipment (swimming)
634 Popcorn popper

237 Portable work light, trouble light
537 Post driver
727 Postage meter equipment
536 Post-hole auger
636 Pot, warming
133 Power boiler
316 Power buffer, grinder, polisher, sander
261 Power cord, detachable from appliance
262 Power cord, permanently attached to appliance
314 Power cutting tool
315 Power drill, screwdriver
317 Power hammer
313 Power jointer, planer, router, shaper
312 Power lathe
318 Power nail gun, stapler, stud driver
311 Power saw
226 Power supply, uninterruptible
363 Power takeoff
362 Power transfer equipment: belts, blocks, cables, ropes
881 Powered model vehicle
364 Powered valve
411 Powered wheelchair
635 Pressure canner, cooker
715 Printer, computer
376 Printing press
133 Process boiler
611 Processor, food
716 Projector, computer
752 Projector: film, overhead, slide
373 Propane regulator
344 Pump
112 Pump, heat

R

426 Radar equipment
417 Radiation therapy equipment
152 Radiator, heating system
446 Radio telescope
743 Radio, AM/FM (not two-way radio)
744 Radio, two-way
417 Radiological equipment
646 Range with or without an oven or cooking surface
847 Razor, electric
357 Reactor
748 Receiver, stereo
217 Receptacle, electrical
229 Rechargeable battery
745 Record player
749 Recorder, tape
656 Refrigeration equipment
656 Refrigerator, refrigerator/freezer

Equipment Involved Codes (Cont'd)

| | | | |
|-----|-------------------------------|-----|---------------------------------|
| 812 | Trash compactor | 211 | Wire, utility line |
| 525 | Trimmer, lawn | 212 | Wire, utility pole to meter box |
| 237 | Trouble light | 639 | Wok |
| 745 | Turntable | 883 | Wood burning kit |
| 424 | TV camera, studio-type | 237 | Work light |
| 423 | TV monitor array, studio-type | | |
| 744 | Two-way radio | | |
| 728 | Typewriter | | |
| | | 417 | X-ray equipment |

X**U**

| | |
|-----|----------------------------|
| 414 | Ultrasound equipment |
| 226 | Uninterrupted power supply |
| 514 | Unloader, silo |
| 872 | Utility lighter |
| 211 | Utility line, electric |

V

| | |
|-----|-------------------------------|
| 834 | Vacuum cleaner |
| 531 | Vacuum, lawn |
| 345 | Vacuum, wet/dry (shop vacuum) |
| 754 | VCR, VCR-TV combination |
| 443 | Vending machine |
| 125 | Vent connector |
| 756 | Video camera |
| 755 | Video game |

W

| | |
|-----|--|
| 638 | Waffle iron |
| 141 | Wall heater |
| 218 | Wall switch |
| 632 | Warmer, food |
| 647 | Warming drawer/table |
| 636 | Warming pot |
| 813 | Washer/Dryer combination |
| 814 | Washing machine, clothes |
| 359 | Waste recovery machine |
| 445 | Water cooler, fountain |
| 348 | Water drilling equipment |
| 151 | Water heater (incl. sink-mounted instant hot water heater) |
| 151 | Waterbed heater |
| 833 | Waxer, floor |
| 371 | Weaving machine |
| 523 | Weed burner |
| 331 | Welding torch |
| 345 | Wet/Dry vacuum (shop vacuum) |
| 411 | Wheelchair, powered |
| 821 | Whirlpool |
| 214 | Wire, meter box to fuse panel/circuit board |

Appendix C

GLOSSARY OF TERMS AND ABBREVIATIONS

Appendix C

Glossary of Terms and Abbreviations

Terms

The terminology used in this document provides a common language for recording fire service data. The following terms are used as defined and discussed below.

Alarm. Any notification made to the fire department that a situation exists or may exist that requires a response.

Area of Origin. The use of the room or area within the property where the fire originated.

Automatic. As applied to fire protection devices, a device or system providing an emergency function without the necessity of human intervention.

Backfire. A fire set along the inner edge of a fire control line to consume the fuel in the path of a wildland fire or change the direction of force of the fire's convection column. Doing this on a small scale and with closer control, in order to consume patches of unburned fuel and aid control line construction, is known as "burning out."

Building. A structure enclosed with walls and a roof and having a defined height.

Building Fire. See Structure Fire.

Burning. The process of self-perpetuating combustion, with or without an open flame. Smoldering is burning.

Casualty (Fire). A person who is injured or killed at the scene of a fire. (Includes injuries or deaths from natural or accidental causes sustained while involved in the activities of fire control, rescue attempt, or escaping from the dangers of the fire.)

Census Data. Demographic population data available by statistical areas from a governmental agency.

Civilian Fire Casualty. Any non-fire service casualty who is injured or killed at the scene of a fire.

Char. Material that has been partially burned on the exterior of the object and has a blackened carbonized appearance.

Combustible. A material or structure that will release heat energy on burning.

Combustible Liquid. Any liquid having a flash point at or above 100°F (37.8°C) (closed cup).

Confine a Fire. To restrict the fire within determined boundaries established either prior to the fire or during the fire. Wildland suppression action may be minimal and limited to surveillance under appropriate conditions.

Contain a Fire. To take suppression action as needed that can reasonably be expected to check the fire's spread under prevailing conditions.

Emergency Scene. The area encompassed by the incident and the surrounding area needed by the emergency forces to stage apparatus and mitigate the incident.

EMT–Basic. Technician has the knowledge and skills of the first responder, but is also qualified to function as minimum staff for an ambulance (see Table of Care). For example, at the scene of a cardiac arrest, the EMT–Basic would be expected to defibrillate and ventilate the patient with a manually operated device and supplemental oxygen.

EMT–Intermediate. Technician has the knowledge and skills of the preceding levels, but also can perform essential advanced techniques and administer a limited number of medications (see Table of Care). For example, at the scene of a cardiac arrest, the EMT–Intermediate would be expected to intubate and administer first-line ACLS medications.

EMT–Paramedic. Technician has demonstrated the competencies expected of an EMT–Intermediate provider, but also can administer additional interventions and medications (see Table of Care). For example, at the scene of a cardiac arrest, the EMT–Paramedic might administer second-line ACLS medications and use an external pacemaker.

Explosion. Violent bursting caused by either a combustion process or an overpressure condition. Typical combustion processes include ignition and burning of combustible gas, dust, or flammable vapor mixture. These are technically “fires.” Typical overpressure conditions include steam pressure, chemical reactions, and compressed gas container rupture. These are technically not “fires.”

Exposure Fire. A fire in a building, structure, vehicle, or outside property resulting from a fire outside that building, structure, vehicle, or outside property.

Exposure (Human). Potential for injury or death to humans.

Fatality. An injury that is fatal or becomes fatal within 1 year of the incident.

Fire. Any instance of destructive and uncontrolled burning, including explosion, of combustible solids, liquids, or gases. Fire does not include the following, except where they cause fire or occur as a consequence of fire:

- Lightning or electrical discharge.
- Rupture of a steam boiler, hot water tank, or other pressure vessel due to internal pressure and not to internal combustion.
- Explosion of munitions or other detonating material.

- Accident involving ship, aircraft, or other vehicle.
- Overheat condition.

Fire Area (Structure). The space within a structure bounded by fire division assemblies (2-hour fire rating or greater).

Fire Area (Wildland). The area within wildfire perimeter control lines.

Fire Blackout. That point in time when there is no longer any evidence of open flame or glow of burned material.

Fire Contained. That point in time when fire spread is stopped, but the fire is not necessarily under control.

Fire Control Line. Comprehensive term for all constructed or natural barriers and treated fire edges used to control a fire.

Fire Damage. The total damage to a building, structure, vehicle, natural vegetation cover, or outside property resulting from a fire and the act of controlling that fire. Included are smoke, water, backfires, firebreaks, and fire control damage.

Fire Extinguished. That point in time when there is no longer any abnormal heat or smoke being generated in material that was previously burning.

Fire Ground. See Emergency Scene.

Fire Service Personnel. All employees, whether career or volunteer, of a fire department who are assigned or may be assigned to perform duties at emergency incidents.

Fire Under Control. (1) That point in time when a fire is sufficiently surrounded and quenched so that in the judgment of the commanding officer it no longer threatens destruction of additional property. (2) In wildfire, that point in time when a control line is around a fire, any spot fires therefrom, and any interior islands to be saved. Any unburned area adjacent to the fire side of the control lines are burned out, and all hot spots that are immediate threats to the control line are cooled down, until the lines can reasonably be expected to hold under foreseeable conditions.

First Responder. Uses a limited amount of equipment with various knowledge and skill in each of the core elements (see EMS levels above). For example, at the scene of a cardiac arrest, the first responder would be expected to notify EMS (if not already notified) and initiate CPR with an oral airway and a barrier device.

Fixed Object. An object, device, or appliance that is fastened or secured at a specific location (e.g., a steam radiator).

Flames. Products of combustion that are illuminated by the heat of combustion and accompany the burning of most materials in normal atmospheres.

Flammable Liquid. Any liquid having a flash point below 100°F (37.8°C) (closed cup) and having a vapor pressure not exceeding 40 psia (2068 mm Hg) at 100°F (37.8°C).

Gas. A material that has a vapor pressure exceeding 40 psia (2068.6 mm) at 100°F (37.8°C). (Gasoline is a liquid, not a gas.)

General Property Use. The actual general (overall) use of land or space under the same management or ownership or within the same legal boundaries, including any structures, vehicles, or other appurtenances thereon.

Grade. Reference plane representing the elevation of finished ground level adjoining the building at the main entrance.

Hazardous Material. Any material that is an air-reactive material, flammable or combustible liquid, flammable gas, corrosive material, explosive material, organic peroxide, oxidizing material, radioactive material, toxic material, unstable material, or water-reactive material; and any substance or mixture of substances that is an irritant or a strong sensitizer or that generates pressure through exposure to heat, decomposition, or other means.

Heat of Ignition. The heat energy that brings about ignition. Heat energy comes in various forms and usually from a specific object or source. Therefore, the heat of ignition is divided into two parts: “equipment involved in ignition” and “form of heat of ignition.”

Ignition. The physical and chemical processes involved in reaching a point of self-perpetuation of fire whether or not there is an open flame.

Ignition Factor. The condition or situation that allowed a heat source and a combustible material to combine to initiate a fire.

Incident. An event to which the reporting agency responds or should have responded. Included are “walk-ins” treated at the station. An incident may have more than one response. A rekindle is a separate incident.

Incident Record. The official file on an incident.

Incident Report. A document prepared by fire department personnel about a particular incident. For understanding and legal purposes, this report should be in their own words. For summarization purposes, the information on this report can be classified into broad categories. The incident report is always part of the incident record or file.

Injury. Physical damage to a person suffered as the result of an incident that requires (or should require) treatment by a practitioner of medicine, a registered EMT, or a paramedic within 1 year of the incident (regardless of whether treatment was actually received) or that results in at least 1 day of restricted activity immediately following the incident.

Latitude. Latitude lines run east/west parallel to the equator. Values range from 0 degrees at the equator to 90 degrees at the North and South poles. The United States and Canada are in the Northern Hemisphere. Minutes and seconds range from 0 to 59.

Longitude. Longitude lines run north/south, are parallel at the equator, and converge at the North and South Poles. Values ranges from 0 degrees at Greenwich, England (near London at the Royal Naval Observatory) to 180 degrees at the International Date Line west of Hawaii. Most of the United States and all of Canada are in the Western Hemisphere. Minutes and seconds range from 0 to 59.

Liquid. A material that has a vapor pressure not exceeding 40 psia (2068.6 mm) at 100°F (37.8°C).

Material First Ignited. The combustible that is first set on fire by the heat of ignition.

Mobile Property Type. Property that was designed to be movable whether or not it still is (e.g., vehicles, ships, and airplanes).

Mop-Up. The act of making a fire scene safer after the fire has been controlled, such as extinguishing or removing burning material along or near the control line, felling snags, and trenching logs to prevent rolling. For structure fires, see *Overhaul*.

Non-Fire Service Personnel. All persons involved with an incident who are not fire service personnel. Included are police, utility company employees, non-fire service medical personnel, and civilians.

Not Occupied. An area with no persons present; contents or equipment present indicates the structure is not vacant.

Occupancy. The purpose for which a building or portion thereof is intended to be used. The specific property use as it pertains to a building is the occupancy.

Occupied. An area with persons present. A hotel (general property use) could be occupied, but the restaurant (specific property use) not occupied; likewise, the restaurant could be occupied, but its storeroom (area of origin) not occupied.

Overhaul. The act of making a fire scene safe after it is controlled, such as extinguishing or removing burned material, checking inside walls and hidden spaces, etc. For wildland fires, see *Mop-Up*.

Overheat. Destruction of material by heat without self-sustained combustion. Removal of the heat source will stop the destruction. Overheat is the stage before ignition.

Overpressure. A transient air pressure, such as the shock wave from an explosion, that is greater than the surrounding atmospheric pressure.

Portable. An object, device, or appliance that can normally be moved by one person, is designed to be used in multiple locations, and requires no tools to install.

Prescribed Fire. Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist prior to ignition. The controlled application of fire to wildland fuels in either their natural or their modified state under specified environmental conditions that allow the fire to be confined to a predetermined area and, at the same time, to produce the intensity of heat and rate of spread required to attain planned resource management objectives.

Principal Meridian. There are 45 principal meridians defined in the United States. They are identified at the end of this appendix.

Property. A thing of value. Specific (fixed) property refers to those things that make up the Earth's surface (e.g., water, land, roadways, structures, buildings). Mobile property refers to those things that normally move in relation to the Earth's surface (e.g., ships, airplanes, trains, trucks, automobiles).

Property Inventory. Information known about a property before an emergency occurs. This knowledge is in two parts: that which is general in character and has to do with external features (such as location, water supply, and construction), and that which is specific in character relating to internal features (such as interior finish, vertical openings, or suppression systems).

Property Use. The use to which a property is put. A building, for example, could serve as a garage or a hospital or a department store. The use of property does not define any of the other important fire-related details of a property such as access, ownership, size, internal weaknesses in fire defense, or construction.

Public Land Survey System. The Land Ordinance of 1785 established the Public Land Survey System in the United States. The surveys cover 30 States; other survey systems are used by the founding 13 States, Kentucky, Tennessee, Maine, Vermont, West Virginia, Texas, and Hawaii.

Range. Ranges are numbered east and west of the principal meridian. The first three digits are the range number and the fourth digit indicates a full or partial range (0 = full, 1 = 1/4, 2 = 1/2, and 3 = 3/4). The fifth character (E or W) indicates direction from the principal meridian.

Rekindle. The redevelopment of a fire after it was thought to have been extinguished by the original fire service response. Fire service response to a rekindle should be treated as a separate incident.

Reportable Fire. Any unfriendly, hostile fire that comes to the attention of an agency keeping fire records. Included are fires that may be discovered in progress or discovered after extinguishment.

Response. The deployment of an emergency service resource to an incident.

Room. The space or area bounded by walls. The walls may be fire rated and impede fire spread or not fire rated (e.g., mesh screen), which may impede exiting of personnel.

Scorch. Discoloring (browning or blackening) of a material, a characteristic of the overheat condition. Removal of the heat source will stop the destruction.

Section. Sections are numbered 1–36 beginning in the northeast corner for all but the very earliest principal meridians. Sections 1–6 are the northern most tier and are numbered east to west. Sections 7–12 are the next tier south of the first tier and are numbered west to east. The remaining sections follow the same pattern. Each section is nominally 640 acres, although some sections vary from the standard.

Smoldering. Self-sustaining combustion of a material without any flame evident.

Stationary Object. Any object, device, or appliance that is not fastened but that is not readily moved from one place to another in normal use (e.g., a refrigerator).

Story. That portion of a building between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story is that portion of a building between the upper surface of the topmost floor and the upper surface of the roof deck above.

Structure. An assembly of materials forming a construction for occupancy or use to serve a specific purpose. This includes, but is not limited to, buildings, open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported structures, and grandstands.

Structure Fire. Any fire inside a structure whether it involves the structure or not, or any fire under or touching a structure that involves the structure.

Subsection. Sections can be subdivided into successive quarters and described as the NE quarter, NW quarter, SE quarter, and SW quarter (each approximately 160 acres). Each quarter can be quartered again to describe 40-acre parcels. For example, the SE/4 of the NW/4 would be the 40-acre parcel NW of the section center (read small parcel to large parcel).

Toxic Material. Any material that may constitute a hazard to life or health, either temporary or permanent, from exposure by contact, inhalation, or ingestion.

Township. Townships are numbered north and south of the principal base line. The first three digits are the township number, and the fourth digit indicates a full or partial township (0 = full, 1 = 1/4, 2 = 1/2, and 3 = 3/4). The fifth character (N or S) indicates direction from the baseline.

Urban–Wildland Interface Area. The geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.

Urban–Wildland Interface Fire. Any fire, other than prescribed fire, where fire suppression tactics were influenced by a geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels (Incident Type 632).

Vacant. No furnishings or equipment are present.

Wildland Fire. Any fire involving vegetative fuels, other than prescribed fire, that occurs in the wildland. A wildland fire may expose and possibly consume structures (Incident Type 141).

Wildland. Land in an uncultivated, more or less natural state and covered by timber, woodland, brush, or grass. An area in which development is essentially nonexistent except for roads, railroads, power lines, and similar facilities.

Abbreviations for States and Provinces

The following State and province abbreviations are consistent with the Federal Information Processing Standard (FIPS).

U.S. States

| | | | | | |
|----|----------------------|----|----|----------------|----|
| AK | Alaska | 02 | MT | Montana | 30 |
| AL | Alabama | 01 | NC | North Carolina | 37 |
| AR | Arkansas | 05 | ND | North Dakota | 38 |
| AZ | Arizona | 04 | NE | Nebraska | 31 |
| CA | California | 06 | NH | New Hampshire | 33 |
| CO | Colorado | 08 | NJ | New Jersey | 34 |
| CT | Connecticut | 09 | NM | New Mexico | 35 |
| DC | District of Columbia | 11 | NV | Nevada | 32 |
| DE | Delaware | 10 | NY | New York | 36 |
| FL | Florida | 12 | OH | Ohio | 39 |
| GA | Georgia | 13 | OK | Oklahoma | 40 |
| HI | Hawaii | 15 | OR | Oregon | 41 |
| IA | Iowa | 19 | PA | Pennsylvania | 42 |
| ID | Idaho | 16 | RI | Rhode Island | 44 |
| IL | Illinois | 17 | SC | South Carolina | 45 |
| IN | Indiana | 18 | SD | South Dakota | 46 |
| KS | Kansas | 20 | TN | Tennessee | 47 |
| KY | Kentucky | 21 | TX | Texas | 48 |
| LA | Louisiana | 22 | UT | Utah | 49 |
| MA | Massachusetts | 25 | VA | Virginia | 51 |
| MD | Maryland | 24 | VT | Vermont | 50 |
| ME | Maine | 23 | WA | Washington | 52 |
| MI | Michigan | 26 | WI | Wisconsin | 55 |
| MN | Minnesota | 27 | WV | West Virginia | 54 |
| MO | Missouri | 29 | WY | Wyoming | 56 |
| MS | Mississippi | 28 | | | |

U.S. Territories and Possessions

| | | | | | |
|----|-----------------------|----|----|---------------------|----|
| AS | American Samoa | 60 | PR | Puerto Rico | 72 |
| CZ | Canal Zone | 67 | PW | Palau | 70 |
| DD | Department of Defense | | UM | U.S. Minor Outlying | |
| FM | Federated States of | | | Islands | 74 |
| | Micronesia | 64 | VI | Virgin Islands | 78 |
| GU | Guam | 66 | OO | Other | 00 |
| MH | Marshall Islands | 68 | | | |
| MP | Northern Mariana | | | | |
| | Islands | 69 | | | |

Abbreviations for Street Types

The following street type abbreviations are from the US Postal Service

| | | | | | |
|------|------------|------|-----------|------|-----------|
| ALY | Alley | FLD | Field | LNDG | Landing |
| ANX | Annex | FLDS | Fields | LOOP | Loop |
| ARC | Arcade | FLS | Falls | MALL | Mall |
| AVE | Avenue | FLT | Flat | MDW | Meadow |
| BCH | Beach | FLTS | Flats | MDWS | Meadows |
| BG | Burg | FRD | Ford | MEWS | Mews |
| BGS | Burbs | FRDS | Fords | ML | Mill |
| BLF | Bluff | FRG | Forge | MLS | Mills |
| BLFS | Bluffs | FRGS | Forges | MNR | Manor |
| BLVD | Boulevard | FRK | Fork | MNRS | Manors |
| BND | Bend | FRKS | Forks | MSN | Mission |
| BR | Branch | FRST | Forest | MT | Mount |
| BRG | Bridge | FRY | Ferry | MTN | Mountain |
| BRK | Brook | FT | Fort | MTNS | Mountains |
| BRKS | Brooks | FWY | Freeway | MTWY | Motorway |
| BTM | Bottom | GDN | Garden | NCK | Neck |
| BYP | Bypass | GDNS | Gardens | ORCH | Orchard |
| CIR | Circle | GLN | Glen | OVAL | Oval |
| CIRS | Circles | GLNS | Glens | PARK | Park |
| CLF | Cliff | GRN | Green | PASS | Pass |
| CLFS | Cliffs | GRNS | Greens | PATH | Path |
| CLB | Club | GRV | Grove | PIKE | Pike |
| CMN | Common | GRVS | Groves | PKY | Parkway |
| CMNS | Commons | GTWY | Gateway | PKYS | Parkways |
| COR | Corner | HBR | Harbor | PL | Place |
| CORS | Corners | HBRs | Harbors | PLZ | Plaza |
| CP | Camp | HL | Hill | PNE | Pine |
| CPE | Cape | HLS | Hills | PNES | Pines |
| CRES | Crescent | HOLW | Hollow | PR | Prairie |
| CRK | Creek | HTS | Heights | PRT | Port |
| CRST | Crest | HWY | Highway | PRTS | Ports |
| CSWY | Causeway | HVN | Haven | PSGE | Passage |
| CT | Court | INLT | Inlet | PT | Point |
| CTR | Center | IS | Island | PTS | Points |
| CTRS | Centers | ISLE | Isle | RADL | Radial |
| CTS | Courts | ISS | Islands | RAMP | Ramp |
| CURV | Curve | JCT | Junction | RD | Road |
| CV | Cove | JCTS | Junctions | RDG | Ridge |
| CVS | Coves | KNL | Knoll | RDGS | Ridges |
| CYN | Canyon | KNLS | Knolls | RDS | Roads |
| DL | Dale | KY | Key | RIV | River |
| DM | Dam | KYS | Keys | RNCH | Ranch |
| DR | Drive | LCK | Lock | ROW | Row |
| DRS | Drives | LCKS | Locks | RPD | Rapid |
| DV | Divide | LDG | Lodge | RPDS | Rapids |
| EST | Estate | LF | Loaf | RST | Rest |
| ESTS | Estates | LGT | Light | RT | Route |
| EXPY | Expressway | LGTS | Lights | RUE | Rue |
| EXT | Extension | LK | Lake | RUN | Run |
| EXTS | Extensions | LKS | Lakes | SHL | Shoal |
| FALL | Fall | LN | Lane | SHLS | Shoals |

| | | | | | |
|------|-----------|------|------------|------|-----------|
| SHR | Shore | TER | Terrace | VLG | Village |
| SHRS | Shores | TPKE | Turnpike | VLGS | Villages |
| SKWY | Skyway | TRAK | Track | VLY | Valley |
| SMT | Summit | TRCE | Trace | VLYS | Valleys |
| SPG | Spring | TRFY | Trafficway | VW | View |
| SPGS | Springs | TRL | Trail | VWS | Views |
| SPRS | Spurs | TRLR | Trailer | WALK | Walk |
| SPUR | Spur | TRWY | Throughway | WALK | Walks |
| SQ | Square | TUNL | Tunnel | WALL | Wall |
| SQS | Squares | UN | Union | WAY | Way |
| ST | Street | UNS | Unions | WL | Well |
| STA | Station | UPAS | Underpass | WLS | Wells |
| STRA | Stravenue | VIA | Viaduct | XING | Crossing |
| STRM | Stream | VIS | Vista | XRD | Crossroad |
| STS | Streets | VL | Ville | | |

Principal Meridians

This table defines the code, meridian name, abbreviation, and States included for the principal meridians in the United States. The Land Ordinance of 1785 established the Public Land Survey System (PLSS). The survey covers 30 States. The Bureau of Land Management and U.S. Department of Interior defined these codes.

| Abbreviation | Meridian Name | Code | States |
|--------------|---------------------|------|--------------------|
| 1 | First Principal | 01 | IN, OH |
| 2 | Second Principal | 02 | IL, IN |
| 3 | Third Principal | 03 | IL |
| 4 | Fourth Principal | 04 | IL, MN, WI |
| 5 | Fifth Principal | 05 | AR, MN, MO, ND, SD |
| 6 | Sixth Principal | 06 | CO, KS, NE, SD, WY |
| BH | Black Hills | 07 | SD |
| BO | Boise | 08 | ID |
| CHI | Chickasaw | 09 | MS |
| CHO | Choctaw | 10 | MS |
| CIM | Cimarron | 11 | OK |
| CR | Copper River | 12 | AK |
| FB | Fairbanks | 13 | AK |
| GSR | Gila and Salt River | 14 | AZ |
| HUM | Humboldt | 15 | CA |
| HUN | Huntsville | 16 | AL |
| IN | Indian | 17 | OK |
| LOU | Louisiana | 18 | LA |
| MI | Michigan | 19 | MI, OH |
| MT | Principal | 20 | MT |
| MD | Mt. Diablo | 21 | CA, NV |

APPENDIX C • GLOSSARY

| Abbreviation | Meridian Name | Code | States |
|--------------|---------------------|------|--------|
| NAV | Navajo | 22 | AZ |
| NM | New Mexico | 23 | CO, NM |
| SH | St. Helena | 24 | LA |
| SS | St. Stephens | 25 | AL, MS |
| SL | Salt Lake | 26 | UT |
| SB | San Bernardino | 27 | CA |
| SEW | Seward | 28 | AK |
| TAL | Tallahassee | 29 | AL |
| UIN | Uintah | 30 | UT |
| UTE | Ute | 31 | CO |
| WA | Washington | 32 | MS |
| WIL | Willamette | 33 | OR, WA |
| WR | Wind River | 34 | WY |
| OHI | Ohio | 35 | OH |
| GMR | Great Miami River | 36 | OH |
| MUS | Muskingum River | 37 | OH |
| OR | Ohio River | 38 | OH |
| SC1 | First Scioto River | 39 | OH |
| SC2 | Second Scioto River | 40 | OH |
| SC3 | Third Scioto River | 41 | OH |
| ELL | Ellicotts Line | 42 | OH |
| 12M | 12 Mile Square | 43 | OH |
| KR | Kateel River | 44 | AK |
| UMI | Umiat | 45 | AK |

Abbreviations Used in Manual

| | | | |
|--------|--|--------|---|
| ADD | attention deficit disorder | ICC | Interstate Commerce Commission |
| ADHD | attention deficit hyperactive disorder | LCD | liquid crystal display |
| AED | automatic external defibrillator | LOC | level of consciousness |
| AES | automatic extinguishing system | LP | liquid propane |
| ALS | advanced life support | LPG | liquefied petroleum gas |
| ARFF | Aircraft Rescue and Firefighting | MRI | magnetic resonance imaging |
| ATF | Alcohol, Tobacco, and Firearms | MSDS | Material Safety Data Sheets |
| ATM | automatic teller machine | NAERG | North American Emergency Response Guidebook |
| ATV | all-terrain vehicle | NFDC | National Fire Data Center |
| BATF | Bureau of Alcohol, Tobacco, and Firearms | NFDRS | National Fire Danger Rating System |
| BLS | basic life support | NFIRS | National Fire Incident Reporting System |
| CAS | Chemical Abstract Service | NIBRS | National Incident-Based Reporting System |
| CAT | computerized axial tomography | NIFC | National Interagency Fire Center |
| CGI | combustible gas indicators | OB | obstetrics |
| CPR | cardio-pulmonary resuscitation | OD | overdose |
| CRG | NFIRS 5.0 Complete Reference Guide | OMB | Office of Management and Budget |
| CVA | cerebrovascular accident | ORI | Originating Agency Identifier |
| DOT | Department of Transportation | PASS | Personal Alert Safety System |
| ECF | emergency care facility | PLSS | Public Land Survey System |
| EGTA | esophageal gastric tube airway | psi | pounds per square inch |
| EKG | electrocardiogram | RIBC | rigid intermediate bulk container |
| EMS | emergency medical service | SCBA | self-contained breathing apparatus |
| EMT | emergency medical technician | SCUBA | self-contained underwater breathing apparatus |
| ET | endotracheal tube | TIA | transient ischemic attack |
| FBI | Federal Bureau of Investigation | UCR | Uniform Crime Reporting |
| FD | fire department | UPS | uninterrupted power supply |
| FDID | fire department identification | USFA | United States Fire Administration |
| FIBC | flexible intermediate bulk containers | V-Fib | ventricular fibrillation |
| FID | Federal identifier | V-Tach | ventricular tachycardia |
| FIPS | Federal Information Processing Standard | VIN | vehicle identification number |
| GFI | ground fault interrupter | | |
| HazMat | hazardous material | | |
| HVAC | heating, ventilation, and air conditioning | | |

Appendix D

IDENTIFICATION OF CHEMICALS AND HAZARDOUS MATERIALS

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---|-----------------|--------|------------|----------------------------|-----------------|--------|----------|
| 1-(Chloromethyl)-4-nitrobenzene | 0702000 | | | 1,2-Propylenediamine | 1537000 | 2258 | |
| 1-(2-Tolyl) thiourea | 0292001 | | 614-78-8 | 1,3-Butadiene | 0059004 | 1010 | 106-99-0 |
| 1,1,1-Trichloroethane | 0389000 | 2831 | 71-55-6 | 1,3-CPD | 0137002 | 2048 | 77-73-6 |
| 1,1,1,2,2-Tetrachloroethane | 0374005 | 1702 | 79-34-5 | 1,3-Cyclopentadiene dimer | 0137003 | 2048 | 77-73-6 |
| 1,1,1,2-Trichloro-1,2,2-trifluoroethane | 1715000 | | | 1,3-D | 0135001 | 2047 | 542-75-6 |
| 1,1-DCE | 1834000 | | | 1,3-Dichloro-2-propanone | 0127002 | 2649 | 534-07-6 |
| 1,1-Di-(tert-butylperoxy) cyclohexane | 0859000 | 2179 | | 1,3-Dichloroacetone | 0127000 | 2649 | 534-07-6 |
| 1,1-Dichloroethane | 0130000 | 2362 | 75-34-3 | 1,3-Dichloropropene | 0135002 | 2047 | 542-75-6 |
| 1,1-Dichloroethylene | 0408002 | 1303 | 75-35-4 | 1,3-Dimethylbenzene | 0412002 | 1307 | |
| 1,1-Diethoxyethane | 0001003 | 1088 | 105-57-7 | 1,3-Dinitrobenzene | 0166002 | 1597 | |
| 1,1-Difluoroethane | 0147001 | 1030 | 75-37-6 | 1,3-Pentadiene | 0319000 | | 504-60-9 |
| 1,1-Difluoroethylene | 0908000 | 1959 | | 1,4- Butenediol | 0607000 | | |
| 1,1-Dimethylethane | 0238001 | 1969 | 75-28-5 | 1,4-Benzoquinone | 0041001 | 2587 | 106-51-4 |
| 1,1-Dimethylethyl hydroperoxide | 0068002 | | 75-91-2 | 1,4-Butynediol | 0072000 | 2716 | 110-65-6 |
| 1,1-Dimethylethylamine | 0065003 | 2734 | 75-64-9 | 1,4-Cyclohexadiene dioxide | 0041003 | 2587 | 106-51-4 |
| 1,1-Dimethylhydrazine | 0159000 | 1163 | 57-14-7 | 1,4-Dichloro-2-butene | 1839003 | | |
| 1,1-Oxy-bis-(2-chloroethane) | 0129006 | 1916 | 111-44-4 | 1,4-Dichlorobenzene | 0128001 | 1592 | 106-46-7 |
| 1,2,3,4-Diepoxybutane | 0138004 | | 1464-53-5 | 1,4-Dichlorobutene | 1839002 | | |
| 1,2,3,5-Tetramethyl benzene | 1662000 | | | 1,4-Dicyanobutane | 0015002 | 2205 | 111-69-3 |
| 1,2,3,7,8-Pentachlorodibenzo-furans | 1453000 | | | 1,4-Diethylenedioxiide | 0169001 | 1165 | 123-91-1 |
| 1,2,3-Trichloropropane | 1712000 | | | 1,4-Dihydroxy-2-butyne | 0072004 | 2716 | 110-65-6 |
| 1,2,4-Trichlorobenzene | 1701000 | 2321 | | 1,4-Dimethylbenzene | 0412003 | 1307 | |
| 1,2-Butylene oxide | 0067000 | 3022 | 106-88-7 | 1,4-Dinitrobenzene | 0166003 | 1597 | |
| 1,2-DCE | 0131002 | 1150 | 540-59-0 | 1,4-Dioxane | 0169000 | 1165 | 123-91-1 |
| 1,2-Diaminoethane | 0191002 | 1604 | 107-15-3 | 1,4-Epoxybutane | 0379001 | 2056 | 109-99-9 |
| 1,2-Dibromo-3-chloropropane | 0853000 | 2872 | | 1-Acetoxyethylene | 0403003 | 1301 | 108-05-4 |
| 1,2-Dibromoethane | 0192002 | 1605 | 106-93-4 | 1-Acetoxypropane | 0347002 | 1276 | 109-60-4 |
| 1,2-Dichloroethane | 0193001 | 1184 | 107-06-2 | 1-Amino-2,4-dinitrobenzene | 0165001 | 1596 | 97-02-9 |
| 1,2-Dichloroethylene | 0131000 | 1150 | 540-59-0 | 1-Amino-2-propanol | 0243001 | | 78-96-6 |
| 1,2-Dichloropropane | 0351001 | 1279 | 78-87-5 | 1-Aminobutane | 0064001 | 1125 | 109-73-9 |
| 1,2'-Dichlorotriethylamine | 0180001 | 2734 | 538-07-8 | 1-Bromo-3-methylbutane | 0595000 | 2341 | |
| 1,2-Diethoxyethane | 0195001 | 1153 | 629-14-1 | 1-Bromobutane | 0056000 | 1126 | 109-65-9 |
| 1,2-Diethylhydrazine | 0145000 | | 1615-80-1 | 1-Bromopropane | 0598000 | | |
| 1,2-Dimethoxyethane | 0150000 | 2252 | 110-71-4 | 1-Butanethiol | 0070001 | 2347 | 109-79-5 |
| 1,2-Dimethylbenzene | 0412001 | 1307 | | 1-Butene oxide | 0067001 | 3022 | 106-88-7 |
| 1,2-Dinitrobenzene | 0166001 | 1597 | | 1-Butyl acetate | 0061002 | 1123 | 123-86-4 |
| 1,2-Epoxybutane | 0067003 | 3022 | 106-88-7 | 1-Butylene oxide | 0067002 | 3022 | 106-88-7 |
| 1,2-Epoxyethane | 0199004 | 1040 | 75-21-8 | 1-Chloro-1-propene | 0710000 | | |
| 1,2-Epoxypropane | 0353002 | 1280 | 75-56-9 | 1-Chloro-2,3-epoxypropane | 0172001 | 2023 | 106-89-8 |
| 1,2-Ethylene dichloride | 0193005 | 1184 | 107-06-2 | 1-Chloro-2-cyanoethane | 0102001 | 3276 | 542-76-7 |
| 1,2-Propanediol-1-methacrylate | 0236001 | | 27813-02-1 | 1-Chloro-2-nitrobenzene | 0097001 | 1578 | |
| | | | | 1-Chloro-4-methylbenzene | 0104001 | 2238 | 106-43-4 |
| | | | | 1-Chlorobutane | 0094003 | 1127 | 109-69-3 |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|----------|--|-----------------|--------|----------|
| 1-Chloropropane | 0708000 | 1278 | | 2,2-Dimethyl octanoic acid | 0938000 | | |
| 1-Chloropropylene | 0713000 | | | 2,2-Dimethylbutane | 0300001 | 1208 | 75-83-2 |
| 1-Decene | 0816000 | | | 2,2-Dimethylpropane | 0942000 | 2044 | |
| 1-Fluoroethene | 0407002 | 1860 | 75-02-5 | 2,2-Dimethylpropane-1,3-diol | 0943000 | | |
| 1-Heptene | 0220001 | 2278 | 592-76-7 | 2,3,7,8-Tetrachlorodibenzofurans | 1649000 | | |
| 1-Hexanol | 1152000 | 2282 | | 2,3,7,8-Tetrachlorodibenzo-p-dioxin(TCDD) | 1650000 | 2378 | |
| 1-Hexene | 0222002 | 2370 | 592-41-6 | 2,3-Butylene oxide | 0618000 | | |
| 1-Isocyanobutane | 0069003 | 2485 | 111-36-4 | 2,3-Dichloropropene | 0877000 | 2047 | |
| 1-Methoxyethylene | 0409002 | 1087 | 107-25-5 | 2,3-Dihydropyran | 0912000 | 2376 | |
| 1-Methyl ethyl alcohol | 0242004 | 1219 | 67-63-0 | 2,4,5-TP (or Silvex) | 1691000 | 2765 | |
| 1-Methyl naphthalene | 1310000 | | | 2,4,5-Trichlorophenoxyacetic acid | 1707000 | 2765 | |
| 1-Methyl pyrrolidone | 1327000 | | | 2,4,5-Trichlorophenoxyacetic acid, sodium salt | 1708000 | | |
| 1-Methyl-1-phenylethene | 0244003 | 2303 | 98-83-9 | 2,4,6-Trichlorophenol | 1706000 | 2020 | |
| 1-Methyl-2-aminoethanol | 0243003 | | 78-96-6 | 2,4,6-Trichloro-s-triazine | 0113001 | 2670 | 108-77-0 |
| 1-Methylbutadiene | 0319001 | | 504-60-9 | 2,4,6-Trimethyl aniline | 1737000 | | |
| 1-Methylethylamine | 0245002 | 1221 | 75-31-0 | 2,4-D | 0122000 | 2765 | 94-75-7 |
| 1-Methylhydrazine | 0282002 | 1244 | 60-34-4 | 2,4-Diaminotoluene | 0385002 | 1709 | 95-80-7 |
| 1-Nitropropane | 0308001 | 2608 | 108-03-2 | 2,4-Dichlorophenol | 0875000 | | |
| 1-Octene | 0313002 | | 111-66-0 | 2,4-Dichlorophenoxyacetic acid | 0122002 | 2765 | 94-75-7 |
| 1-Pentanol | 0032005 | 1105 | 71-41-0 | 2,4-Dimethyl phenol | 0939000 | 2261 | |
| 1-Pentene | 1461000 | 1108 | | 2,4-Dinitro-1-aminobenzamine | 0165002 | 1596 | 97-02-9 |
| 1-Pentyl alcohol | 0032006 | 1105 | 71-41-0 | 2,4-Dinitroaniline | 0165000 | 1596 | 97-02-9 |
| 1-Phenyl-2-thiourea | 0328003 | 2767 | 103-85-5 | 2,4-Dinitrobenzamine | 0165003 | 1596 | 97-02-9 |
| 1-Phenylpropane | 0348002 | 2364 | 103-65-1 | 2,4-Dinitro-o-cresol | 0167002 | 1598 | 534-52-1 |
| 1-Propanethiol | 0342001 | 2402 | 107-03-9 | 2,4-Dinitrophenol | 0168004 | | 51-28-5 |
| 1-Propene | 0350004 | 1077 | 115-07-1 | 2,4-Dinitrotoluene | 0951000 | 2038 | |
| 1-Propyl acetate | 0347003 | 1276 | 109-60-4 | 2,4-DNP | 0168005 | | 51-28-5 |
| 1-Propylene | 0350005 | 1077 | 115-07-1 | 2,4-Pentadione | 0320005 | 2310 | 123-54-6 |
| 1-Tetradecene | 1653000 | | | 2,4-TDI | 0386002 | 2078 | 584-84-9 |
| 1-Tridecene | 1720000 | | | 2,4-Toluediamine | 0385000 | 1709 | 95-80-7 |
| 1-Undecene | 1761000 | | | 2,5-Dioxahexane | 0150003 | 2252 | 110-71-4 |
| 2-Chloronaphthalene | 0703000 | | | 2,6-Diethyl aniline | 0889000 | | |
| 2-(2,4,5-Trichlorophenoxy) propanoic acid | 1709000 | 2765 | | 2,6-Xylidine | 1784000 | 1711 | |
| 2-(2,4,5-Trichlorophenoxy) propanoic acid, | 1835000 | | | 2-Acetylamino fluorene | 0417000 | | |
| 2-(2-Aminoethoxy)ethanol | 0441000 | 3055 | | 2-Amino-2-methyl-1-propanol | 0444000 | | |
| 2,2',2''-Trichlorotriethylamine | 0399001 | | 555-77-1 | 2-Aminoethanol | 0174001 | 2491 | 141-43-5 |
| 2,2'-Diaminodiethylamine | 0143004 | 2079 | 111-40-0 | 2-Aminoisobutane | 0065001 | 2734 | 75-64-9 |
| 2,2'-Dichlorodiethyl ether | 0129000 | 1916 | 111-44-4 | 2-Aminopentane | 0140001 | 1154 | 109-89-7 |
| 2,2-Dichloroisopropyl ether | 0872000 | 2490 | | 2-Aminopropane | 0245001 | 1221 | 75-31-0 |
| 2,2'-Dichlorotriethylamine | 0880000 | | | 2-Aminopyridine | 0023001 | 2671 | |
| | | | | 2-Bromobutane | 0591000 | 2339 | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------------|-----------------|--------|-----------|------------------------------------|-----------------|--------|-----------|
| 2-Bromoethyl ethyl ether | 0593000 | 2340 | | 2-Hexanone | 0271001 | 1224 | 591-78-6 |
| 2-Bromopentane | 0596000 | | | 2-Hexene | 1153000 | | |
| 2-Bromopropane | 0057000 | 2344 | 75-26-3 | 2-Hydroperoxy-2-methylpropene | 0068003 | | 75-91-2 |
| 2-Butanone | 0280001 | 1193 | 78-93-3 | 2-Hydroxyethyl acrylate | 1160000 | | |
| 2-Butenal | 0106001 | 1143 | 4170-30-3 | 2-Hydroxyisobutyronitrile | 0005002 | 1541 | 75-86-5 |
| 2-Butyne-1,4-diol | 0072001 | 2716 | 110-65-6 | 2-Hydroxypropionitrile | 0250003 | 3275 | 78-97-7 |
| 2-Butynediol | 0072002 | 2716 | 110-65-6 | 2-Hydroxypropylamine | 0243002 | | 78-96-6 |
| 2-Chloro-1,3-butadiene | 0100003 | 1991 | 126-99-8 | 2-Hydroxytriethylamine | 0141004 | 2686 | 100-37-8 |
| 2-Chloro-1-ethanol | 0189002 | 1135 | 107-07-3 | 2-Isopropylcyanohydrin | 0005004 | 1541 | 75-86-5 |
| 2-Chloroacetaldehyde | 0090001 | 2232 | 107-20-0 | 2-Methoxy-2-methylpropane | 0270002 | 2398 | 1634-04-4 |
| 2-Chloroacrylic acid, methyl ester | 0275001 | | 80-63-7 | 2-Methoxyethanol | 0197005 | 1188 | 109-86-4 |
| 2-Chlorobuta-1,3-diene | 0100004 | 1991 | 126-99-8 | 2-Methyl lactonitrile | 0005005 | 1541 | 75-86-5 |
| 2-Chlorobutane | 0693000 | 1127 | | 2-Methyl-1,3-butadiene | 0241002 | 1218 | 78-79-5 |
| 2-Chloroethane sulfonyl chloride | 0697000 | | | 2-Methyl-1-butene | 1281000 | 2459 | |
| 2-Chloroethanol | 0189001 | 1135 | 107-07-3 | 2-Methyl-1-butenone | 0287003 | 1246 | 814-78-8 |
| 2-Chloroethyl chlorocarbonate | 0095001 | 2742 | 627-11-2 | 2-Methyl-1-nitroanthraquinone | 1312000 | | |
| 2-Chloroethyl vinyl ether | 0698000 | | | 2-Methyl-1-pentene | 1317000 | | |
| 2-Chlorophenylthiourea | 0098000 | | 5344-82-1 | 2-Methyl-2-butene | 1282000 | 2460 | |
| 2-Chloropropane | 0709000 | 2356 | | 2-Methyl-2-hydroxy-3-butyne | 1305000 | | |
| 2-Chloropropene | 0711000 | 2456 | | 2-Methyl-2-pentene | 1318000 | | |
| 2-Chloropropionic acid | 0101001 | 2511 | 598-78-7 | 2-Methyl-2-propenoic acid | 0255003 | 2531 | 79-41-4 |
| 2-Cyano-2-propanol | 0005001 | 1541 | 75-86-5 | 2-Methyl-4-pentanone | 0285003 | 1245 | 108-10-1 |
| 2-Cyanoethyl alcohol | 0190001 | | 109-78-4 | 2-Methyl-5-vinyl pyridine (MVP) | 1331000 | 3073 | |
| 2-Cyanohydrin | 0190002 | | 109-78-4 | 2-Methyl-6-ethyl aniline | 1298000 | | |
| 2-Cyanopropane | 0240001 | 2284 | 78-82-0 | 2-Methylacrylic acid, methyl ester | 0290002 | 1247 | 80-62-6 |
| 2-Cyanopropene | 0264001 | 3079 | 126-98-7 | 2-Methylbutadiene | 0241003 | 1218 | 78-79-5 |
| 2-Diethylaminoethanol | 0141002 | 2686 | 100-37-8 | 2-Methylpropane | 0238002 | 1969 | 75-28-5 |
| 2-Dimethylaminoethanol | 0930000 | 2051 | | 2-Methylpropene | 0239001 | 1055 | 115-11-7 |
| 2-Ethoxyethanol | 0196001 | 1171 | 110-80-5 | 2-Methylpropenenitrile | 0264003 | 3079 | 126-98-7 |
| 2-Ethoxyethyl ethyl ether | 0195004 | 1153 | 629-14-1 | 2-Nitrophenol | 1399000 | 1663 | |
| 2-Ethyl hexanoic acid | 1052000 | | | 2-Nitropropane | 0308002 | 2608 | 79-46-9 |
| 2-Ethyl hexanol | 1053000 | | | 2-Nitrotoluene | 0310002 | 1664 | |
| 2-Ethyl hexylamine | 1054000 | 2276 | | 2-Oxetanone | 0344002 | 1993 | 57-57-8 |
| 2-Ethyl toluene | 1071000 | | | 2-Pentene | 1462000 | | |
| 2-Ethyl-3-propyl acrolein | 1065000 | | | 2-Phenyloxirane | 0363002 | | 96-09-3 |
| 2-Fluoroacetic acid | 0208002 | 2642 | 144-49-0 | 2-Phenylpropane | 0246003 | 1918 | 98-82-8 |
| 2-Fluoroaniline | 1096000 | 2941 | | 2-Phenylpropylene | 0244004 | 2303 | 98-83-9 |
| 2-Fluoroethanol | 0194001 | | 371-62-0 | 2-Propanol | 0242005 | 1219 | 67-63-0 |
| 2-Formylfuran | 0216001 | 1199 | 98-01-1 | 2-Propanone | 0004003 | 1090 | 67-64-1 |
| 2-Furaldehyde | 0216003 | 1199 | 98-01-1 | 2-Propen-1-amine | 0018005 | 2334 | 107-11-9 |
| 2-Furfural | 0216004 | 1199 | 98-01-1 | 2-Propenal | 0010004 | 1092 | 79-06-1 |
| 2-H-1,4-oxazine | 0298003 | 2054 | 110-91-8 | 2-Propenamine | 0018004 | 2334 | 107-11-9 |
| 2-Heptanone | 0267003 | 1110 | 110-43-0 | 2-Propenenitrile | 0013004 | 1093 | 107-13-1 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------------|-----------------|--------|-----------|---------------------------------|-----------------|--------|----------|
| 2-Propenoic acid | 0012007 | 2218 | 79-10-7 | 3-Propanolide | 0344003 | 1993 | 57-57-8 |
| 2-Propenol | 0017006 | 1098 | 107-18-6 | 3-Trifluoromethylaniline | 1731000 | 2948 | |
| 2-Propenyl bromide | 0019004 | 1099 | 106-95-6 | | | | |
| 2-Propenyl chloroformate | 0021002 | 1722 | 2937-50-0 | 4,4'-DDT | 0811000 | 2761 | |
| 2-Propyl chloroformate | 0247003 | 2407 | 108-23-6 | 4,4'-Diaminodiphenyl ether | 0832000 | | |
| 2-Propylamine | 0245003 | 1221 | 75-31-0 | 4,4'-Isopropylidenediphenol | 1186000 | | |
| 2-Propynol | 0343003 | 1986 | 107-19-7 | 4,4'-Methylene bis- | | | |
| 2-Pyrrolidone | 1551000 | | | (2-chloroaniline) | 1292000 | | |
| 2-Thiopropene | 0163004 | 1164 | 75-18-3 | 4,4'-Methylene bis- | | | |
| 2-Thiourea | 0382003 | | 62-56-6 | (2-methylaniline) | 1293000 | | |
| | | | | 4,4'-Methylene dianiline | 1295000 | | |
| 3-(1-Methyl ethyl) phenyl methyl | | | | 4,4'-Thiodianiline | 1679000 | | |
| carbamate | 1299000 | | | 4,6-Dinitro-o-cyclohexyl phenol | 0950000 | 9026 | |
| 3,3'-Dichlorobenzidine | 0869000 | | | 4-Aminoazobenzene | 0439000 | | |
| 3,3'-Diethylthiadicarbocyanine | | | | 4-Aminobutyl diethoxymethyl | | | |
| iodide | 0171002 | | 514-73-8 | silane | 0440000 | | |
| 3-Aminopropene | 0018001 | 2334 | 107-11-9 | 4-Amino-N,N-dimethylaniline | 0160001 | | 99-98-9 |
| 3-Aminopropylene | 0018002 | 2334 | 107-11-9 | 4-Aminopropiophenone | 0445000 | | |
| 3-Aminopyridine | 0023002 | 2671 | | 4-Aminopyridine | 0023003 | 2671 | |
| 3-Bromo-1-propene | 0019002 | 1099 | 106-95-6 | 4-Bromophenyl phenyl ether | 0597000 | | |
| 3-Bromopropylene | 0019003 | 1099 | 106-95-6 | 4-Chloro-1-methylbenzene | 0104002 | 2238 | 106-43-4 |
| 3-Bromopropyne | 0058000 | 2345 | 106-96-7 | 4-Chlorophenyl phenyl ether | 0705000 | | |
| 3-Buten-2-one | 0297001 | 1251 | 78-94-4 | 4-Chlorotoluene | 0104003 | 2238 | 106-43-4 |
| 3-Buteno-beta-lactone | 0149002 | 2521 | 674-82-8 | 4-Dimethyl aminoazobenzene | 0929000 | | |
| 3-Chloropropanenitrile | 0102002 | 3276 | 542-76-7 | 4-Fluoroaniline | 1097000 | 2941 | |
| 3-Chloropropene | 0020003 | 1100 | 107-05-1 | 4-Fluorotoluene | 1098000 | 2388 | |
| 3-Chloropropionitrile | 0102000 | 3276 | 542-76-7 | 4-Methyl-1-pentene | 0291000 | 2288 | 691-37-2 |
| 3-Chloropropyl octyl sulfoxide | 0714000 | | | 4-Methyl-2-pentanol | 0284004 | 2053 | 108-11-2 |
| 3-Chlorotoluene | 0716000 | 2238 | | 4-Methyl-2-pentene | 1319000 | | |
| 3-Hexene | 1154000 | | | 4-Methyl-3-penten-2-one | 1841004 | 1229 | 141-79-7 |
| 3-Hydroxy-1-propyne | 0343002 | 1986 | 107-19-7 | 4-Methylene | 0149004 | 2521 | 674-82-8 |
| 3-Hydroxypropionitrile | 0190005 | | 109-78-4 | 4-Nitroaniline | 1380000 | 1661 | |
| 3-Methoxybutyl acetate | 1267000 | | | 4-Nitrobiphenyl | 1382000 | | |
| 3-Methyl nitrosoaminopropionitrile | 1313000 | | | 4-Nitrophenol | 1401000 | 1663 | |
| 3-Methyl-1-butene | 1283000 | 2561 | | 4-Nitropyridine-1-oxide | 1402000 | | |
| 3-Methyl-2-butanone | 0269000 | 2397 | 563-80-4 | 4-Nitrotoluene | 0310004 | 1664 | |
| 3-Methyl-3-butene-2-one | 0287002 | 1246 | 814-78-8 | 4-Pyridinamine | 0023009 | 2671 | |
| 3-Methylbut-2-one | 0269002 | 2397 | 563-80-4 | 4-Pyridylamine | 0023010 | 2671 | |
| 3-MIC | 0284006 | 2053 | 108-11-2 | 4-Thiapentanal | 1674000 | 2785 | |
| 3-Nitrophenol | 1400000 | 1663 | | | | | |
| 3-Nitrotoluene | 0310003 | 1664 | | 5-Nitroacenaphthene | 1379000 | | |
| 3-Nitrotoluol | 0310007 | 1664 | | 5-Nitro-o-anisidine | 1381000 | | |
| 3-Pentanone | 0146005 | 1156 | 96-22-0 | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---------------------------------------|-----------------|--------|----------|---------------------------------|-----------------|--------|------------|
| 7H- Dibenzo (C,G) carbazole | 0850000 | | | Acetylene | 0009000 | 1001 | 74-86-2 |
| | | | | Acetylene dichloride | 0131001 | 1150 | 540-59-0 |
| A-150 | 0411001 | 1305 | 75-94-5 | Acetylene tetrachloride | 0374001 | 1702 | 79-34-5 |
| AA | 0017002 | 1098 | 107-18-6 | Acetylene trichloride | 0390001 | 1710 | 79-01-6 |
| Acetal | 0001000 | 1088 | 105-57-7 | Acetylenogen | 0076001 | 1402 | 75-20-7 |
| Acetaldehyde | 0002000 | 1089 | 75-07-0 | Acetylsilicon trichloride | 0022001 | 1724 | 107-37-9 |
| Acetaldehyde cyanohydrin | 0250001 | 3275 | 78-97-7 | Acridine | 0419000 | 2713 | |
| Acetaldehyde ethylacetal | 0001001 | 1088 | 105-57-7 | Acroleic acid | 0012001 | 2218 | 79-10-7 |
| Acetamide | 0414000 | | | Acrolein | 0010000 | 1092 | 79-06-1 |
| Acetene | 0188001 | 1038 | 74-85-1 | Acrylaldehyde | 0010001 | 1092 | 79-06-1 |
| Acetic acid (more than 80%) | 1840001 | 2789 | 64-19-7 | Acrylamide | 0011000 | 2074 | 79-06-1 |
| Acetic acid (solution in water 1-80%) | 1840000 | 2790 | 64-19-7 | Acrylic acid | 0012000 | 2218 | 79-10-7 |
| Acetic acid anhydride | 0003001 | 1715 | 108-24-7 | Acrylic acid, butyl ester | 0062001 | 2348 | 141-32-2 |
| Acetic acid bromide | 0007001 | 1716 | 506-96-7 | Acrylic acid, chloride | 0014001 | 9188 | 814-68-6 |
| Acetic acid chloride | 0008001 | 1717 | 75-36-5 | Acrylic acid, ethyl ester | 0176001 | 1917 | 140-88-5 |
| Acetic acid, dimethylamide | 0151001 | | 127-19-5 | Acrylic acid, methyl ester | 0263001 | 1919 | 96-33-3 |
| Acetic acid, ethinyl ester | 0403001 | 1301 | 108-05-4 | Acrylic amide | 0011001 | 2074 | 79-06-1 |
| Acetic acid, methyl ester | 0261001 | 1231 | 79-20-9 | Acrylonitrile | 0013000 | 1093 | 107-13-1 |
| Acetic acid, n-butyl ester | 0061001 | 1123 | 123-86-4 | Acryloyl chloride | 0014000 | 9188 | 814-68-6 |
| Acetic acid, n-propyl ester | 0347001 | 1276 | 109-60-4 | Acrylyl chloride | 0014002 | 9188 | 814-68-6 |
| Acetic acid, vinyl ester | 0403002 | 1301 | 108-05-4 | Actidione | 0117001 | | 66-81-9 |
| Acetic aldehyde | 0002001 | 1089 | 75-07-0 | Actidone | 0117002 | | 66-81-9 |
| Acetic anhydride | 0003000 | 1715 | 108-24-7 | Adipic acid | 0420000 | | |
| Acetic chloride | 0008002 | 1717 | 75-36-5 | Adipic acid dinitrile | 0015001 | 2205 | 111-69-3 |
| Acetic ester | 0175001 | 1173 | 141-78-6 | Adiponitrile | 0015000 | 2205 | 111-69-3 |
| Acetic ether | 0175002 | 1173 | 141-78-6 | Alachlor | 0421000 | | |
| Acetoacetone | 0320001 | 2310 | 123-54-6 | Alcide | 0088001 | 9191 | 10049-04-4 |
| Acetocyanohydrin | 1819000 | | | Aldicarb | 0016000 | 2757 | 116-06-3 |
| Acetol | 0001002 | 1088 | 105-57-7 | Aldifen | 0168003 | | 51-28-5 |
| Acetone | 0004000 | 1090 | 67-64-1 | Aldrin | 0422000 | 2761 | |
| Acetone cyanohydrin | 0005000 | 1541 | 67-64-1 | Algrain | 0177001 | 1170 | 64-17-5 |
| Acetone thiosemicarbazide | 0415000 | | | Alkyl benzene sulfonic acids | 0423000 | | |
| Acetonitrile | 0006000 | 1648 | 75-05-8 | Allene | 0424000 | 2200 | |
| Acetophenone | 0416000 | | | Allene-methyl acetylene mixture | 0262001 | 1060 | |
| Acetyl acetone | 0320002 | 2310 | 123-54-6 | Allethrin | 0425000 | 2902 | |
| Acetyl anhydride | 0003002 | 1715 | 108-24-7 | Allyl acetate | 0426000 | 2333 | |
| Acetyl bromide | 0007000 | 1716 | 506-96-7 | Allyl alcohol | 0017000 | 1098 | 107-18-6 |
| Acetyl chloride | 0008000 | 1717 | 75-36-5 | Allyl aldehyde | 0010002 | 1092 | 79-06-1 |
| Acetyl ether | 0003003 | 1715 | 108-24-7 | Allyl bromide | 0019000 | 1099 | 106-95-6 |
| Acetyl ketene | 0149001 | 2521 | 674-82-8 | Allyl chloride | 0020000 | 1100 | 107-05-1 |
| Acetyl oxide | 0003004 | 1715 | 108-24-7 | Allyl chlorocarbonate | 0021001 | 1722 | 2937-50-0 |
| Acetyl peroxide solution | 0418000 | 2084 | | Allyl chloroformate | 0021000 | 1722 | 2937-50-0 |
| | | | | Allyl ether | 0427000 | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-----------------------------|-----------------|--------|-----------|---|-----------------|--------|------------|
| Allyl ethyl ether | 0428000 | 2335 | | Amiton oxalate | 0447000 | | |
| Allyl iodide | 0429000 | 1723 | | Amitrole | 0448000 | | |
| Allyl isothiocyanate | 0430000 | 1545 | | Ammonia | 0024000 | 1005 | 7664-41-7 |
| Allylal | 0017001 | 1098 | 107-18-6 | Ammonia monohydrate | 0027001 | | 1336-21-6 |
| Allylamine | 0018000 | 2334 | 107-11-9 | Ammonia solution | 0027002 | | 1336-21-6 |
| Allylic alcohol | 0017003 | 1098 | 107-18-6 | Ammonia water | 0027003 | | 1336-21-6 |
| Allyltrichlorosilane | 0022000 | 1724 | 107-37-9 | Ammonia, anhydrous | 0024002 | 1005 | 7664-41-7 |
| alpha-Bromotoluene | 0044001 | 1737 | 100-39-0 | Ammonium acetate | 0449000 | | |
| alpha-Chlorobenzaldehyde | 0043002 | 1736 | 98-88-4 | Ammonium aminoformate | 0026001 | 9083 | 1111-78-0 |
| alpha-Chloropropionic acid | 0101000 | 2511 | 598-78-7 | Ammonium benzoate | 0025000 | 9080 | 1863-63-4 |
| alpha-Chlorotoluene | 0045001 | 1738 | 100-44-7 | Ammonium bicarbonate | 0452000 | | |
| alpha-Cumene hydroperoxide | 0107001 | 2116 | 80-15-9 | Ammonium bifluoride | 0453000 | 1727 | |
| alpha-Endosulfan | 0992000 | | | Ammonium bisulfite | 0454000 | 2693 | |
| alpha-Methacrylic acid | 0255002 | 2531 | 79-41-4 | Ammonium bromide | 0455000 | | |
| alpha-Methylacrylic acid | 0255001 | 2531 | 79-41-4 | Ammonium carbamate | 0026000 | 9083 | 1111-78-0 |
| alpha-Methyl benzyl alcohol | 1280000 | 2937 | | Ammonium carbonate | 0456000 | 9084 | |
| alpha-Methyl styrene | 0244002 | 2303 | 98-83-9 | Ammonium chloride | 0457000 | 9085 | |
| alpha-Naphthyl amine | 1355000 | 2077 | | Ammonium chromate | 0458000 | 9086 | |
| alpha-Pinene | 0337000 | 2368 | 80-56-8 | Ammonium citrate | 0459000 | 9087 | |
| alpha-Tolunitrile | 0324001 | 2470 | 140-29-4 | Ammonium dichromate | 0460000 | 1439 | |
| Aluminum (dust) | 0431000 | 1396 | | Ammonium fluoborate | 0461000 | 9088 | |
| Aluminum borohydride | 0432000 | 2870 | | Ammonium fluoride | 0462000 | 2505 | |
| Aluminum chloride | 0433000 | 1726 | | Ammonium formate | 0463000 | | |
| Aluminum fluoride | 0434000 | | | Ammonium gluconate | 0464000 | | |
| Aluminum nitrate | 0435000 | 1438 | | Ammonium hydroxide | 0027000 | 2672 | 1336-21-6 |
| Aluminum oxide | 0436000 | | | Ammonium hydroxide (10-35% in water) | 0027004 | 2672 | 1336-21-6 |
| Aluminum phosphide | 0437000 | 1397 | | Ammonium hydroxide (35-50% in water) | 0027005 | 2073 | 1336-21-6 |
| Aluminum sulfate | 0438000 | | | Ammonium hypophosphite | 0465000 | | |
| Aluminum, triisobutyl | 0395001 | | 100-99-2 | Ammonium iodide | 0466000 | | |
| AMFO | 0034001 | 0331 | | Ammonium lactate | 0467000 | | |
| AM-FOL | 0024001 | 1005 | 7664-41-7 | Ammonium lauryl sulfate | 0468000 | | |
| Aminic acid | 0214001 | 1779 | 64-18-6 | Ammonium molybdate | 0469000 | | |
| Aminobenzene | 0035002 | 1547 | 62-53-3 | Ammonium monosulfide | 0029001 | 2683 | 12135-76-1 |
| Aminocyclohexane | 0118001 | 2357 | 108-91-8 | Ammonium nitrate | 0470000 | 1942 | |
| Aminoethane | 0178001 | 1036 | 75-04-7 | Ammonium nitrate fertilizers | 0471000 | 2072 | |
| Aminoethyl ethanol amine | 0442000 | | | Ammonium nitrate:fuel oil | 0034002 | 0331 | |
| Aminoethylethandiamine | 0143001 | 2079 | 111-40-0 | Ammonium nitrate-phosphate mixture | 0472000 | 2070 | |
| Aminohexahydrobenzene | 0118002 | 2357 | 108-91-8 | Ammonium nitrate-sulfate mixture | 0473000 | 2069 | |
| Aminomethane | 1831000 | | | Ammonium nitrate-urea solution | 0474000 | | |
| Aminophen | 0035001 | 1547 | 62-53-3 | Ammonium oleate | 0475000 | | |
| Aminopyridine | 0023000 | 2671 | | | | | |
| Aminotoluene | 0387001 | 1708 | | | | | |
| Amiton | 0446000 | 3017 | | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-------------------------------------|-----------------|--------|------------|--|-----------------|--------|------------|
| Ammonium oxalate | 0476000 | 2449 | | Antimony pentafluoride | 0503000 | 1732 | |
| Ammonium pentaborate | 0477000 | | | Antimony potassium tartrate | 0504000 | 1551 | |
| Ammonium perchlorate | 0028000 | 1442 | 7790-98-9 | Antimony tribromide | 0505000 | 1549 | |
| Ammonium perchlorate high explosive | 0028001 | 1442 | 7790-98-9 | Antimony trichloride | 0506000 | 1733 | |
| Ammonium perchlorate oxidizer | 0028002 | 1442 | 7790-98-9 | Antimony trifluoride | 0507000 | 1549 | |
| Ammonium permanganate | 0478000 | 9190 | | Antimony trioxide | 0508000 | | |
| Ammonium persulfate | 0479000 | 1444 | | Antimony (powder) | 0501000 | 2871 | |
| Ammonium phosphate | 0480000 | | | ANTU | 0509000 | 1651 | |
| Ammonium picrate (wet) | 0481000 | 1310 | | Aqua fortis | 0302002 | | 7697-37-2 |
| Ammonium rhodanate | 0031000 | 9092 | 1762-95-4 | Aqueous ammonia | 0027006 | | 1336-21-6 |
| Ammonium silicofluoride | 0482000 | 2854 | | Aramite | 0510000 | | |
| Ammonium stearate | 0483000 | | | Arctic | 0273001 | 1063 | 74-87-3 |
| Ammonium sulfamate | 0484000 | 9089 | | Argon | 0511000 | 1006 | |
| Ammonium sulfate | 0485000 | | | Arsenic | 0512000 | 1558 | |
| Ammonium sulfide | 0029000 | 2683 | 12135-76-1 | Arsenic acid | 0513000 | 1561 | |
| Ammonium sulfite | 0030000 | 9090 | 10196-04-0 | Arsenic butter | 0036001 | 1560 | 7784-34-1 |
| Ammonium sulfocyanide | 0031001 | 9092 | 1762-95-4 | Arsenic chloride | 0036002 | 1560 | 7784-34-1 |
| Ammonium tartrate | 0486000 | 9091 | | Arsenic dichloroethane | 0186001 | 1892 | 598-14-1 |
| Ammonium thiocyanate | 0031002 | 9092 | 1762-95-4 | Arsenic disulfide | 0514000 | 1557 | |
| Ammonium thiosulfate | 0487000 | 9093 | | Arsenic hydride | 0037001 | 2188 | 7784-42-1 |
| AMS | 0244001 | 2303 | 98-83-9 | Arsenic pentoxide | 0515000 | 1559 | |
| Amthio | 0031003 | 9092 | 1762-95-4 | Arsenic trichloride | 0036000 | 1560 | 7784-34-1 |
| Amyl alcohol | 0032000 | 1105 | 71-41-0 | Arsenic trihydride | 0037002 | 2188 | 7784-42-1 |
| Amyl methyl ketone | 0267001 | 1110 | 110-43-0 | Arsenic trioxide | 0516000 | 1561 | |
| Amyl phthalate | 0494000 | | | Arsenic trisulfide | 0517000 | 1557 | |
| Amylol | 0032002 | 1105 | 71-41-0 | Arsenous chloride | 0036003 | 1560 | 7784-34-1 |
| Amyltrichlorosilane | 0033000 | 1728 | 107-72-2 | Arsenous trichloride | 0036004 | 1560 | 7784-34-1 |
| AN/FO | 0034000 | 0331 | | Arsine | 0037000 | 2188 | 7784-42-1 |
| Anhydrol | 0177002 | 1170 | 64-17-5 | Asbestos | 0518000 | 2212 | |
| Anhydrous ammonia | 0024003 | 1005 | 7664-41-7 | Asphalt | 0519000 | 1999 | |
| Anhydrous ethanol | 0177003 | 1170 | 64-17-5 | Asphalt blending stocks: roofers flux | 0520000 | 1999 | |
| Anhydrous hydrobromic acid | 0228001 | 1048 | 10035-10-6 | Asphalt blending stocks: straight run residue | 0521000 | 1999 | |
| Anhydrous hydrofluoric acid | 0231001 | 1052 | 7664-39-3 | asym-Dimethylhydrazine | 0159001 | 1163 | 57-14-7 |
| Aniline | 0035000 | 1547 | 62-53-3 | Atrazine | 0522000 | | |
| Aniline oil | 0035003 | 1547 | 62-53-3 | Auramine | 0523000 | | |
| Anisole | 0498000 | 2222 | | Avitrol | 0023007 | 2671 | |
| Anisoyl chloride | 0499000 | 1729 | | Azabenzene | 0354001 | 1282 | 110-86-1 |
| Anone | 0116001 | 1915 | 108-94-1 | Azacyclohexane | 0338001 | 2401 | 110-89-4 |
| Ansul ether 121 | 0150001 | 2252 | 110-71-4 | Azacyclopropane | 0198001 | 1185 | 151-56-4 |
| Anthion | 0340001 | 1492 | 7727-21-1 | Azide | 0357001 | 1687 | 26628-22-8 |
| Anthracene | 0500000 | | | Azine | 0354002 | 1282 | 110-86-1 |
| Antimony pentachloride | 0502000 | 1730 | | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--------------------------------|-----------------|--------|-----------|---|-----------------|--------|----------|
| Azirane | 0198002 | 1185 | 151-56-4 | Benzoic acid | 0549000 | | |
| Aziridine | 0198003 | 1185 | 151-56-4 | Benzoic acid amide | 0038001 | | |
| Barium | 0524000 | 1400 | | Benzoic aldehyde | 1838004 | | 100-52-7 |
| Barium carbonate | 0525000 | 1564 | | Benzoic trichloride | 0042001 | 2226 | 98-07-7 |
| Barium chlorate | 0533000 | 1445 | | Benzol | 0039001 | 1114 | 71-43-2 |
| Barium cyanide | 0534000 | 1565 | | Benzonitrile | 0040000 | 2224 | 100-47-0 |
| Barium nitrate | 0535000 | 1446 | | Benzophenone | 0550000 | | |
| Barium perchlorate | 0536000 | 1447 | | Benzoquinone | 0041000 | 2587 | 106-51-4 |
| Barium permanganate | 0537000 | 1448 | | Benzotrichloride | 0042000 | 2226 | 98-07-7 |
| Barium peroxide | 0538000 | 1449 | | Benzoyl chloride | 0043000 | 1736 | 98-88-4 |
| BCME | 0133001 | 2249 | 542-88-1 | Benzoyl peroxide | 0551000 | 2085 | |
| BD | 0059001 | 1010 | 106-99-0 | Benzoylamide | 0038002 | | |
| Benomyl | 0539000 | | | Benzyl acetate | 0552000 | | |
| Bentazon | 0540000 | | | Benzyl alcohol | 0553000 | | |
| Benzal chloride | 0047001 | 1886 | 98-87-3 | Benzyl amine | 0554000 | | |
| Benzaldehyde | 1838000 | 1989 | 100-52-7 | Benzyl bromide | 0044000 | 1737 | 100-39-0 |
| Benzaldehyde | 1838001 | 1990 | 100-52-7 | Benzyl carbonyl chloride | 0046001 | 1739 | 501-53-1 |
| Benzamide | 0038000 | | | Benzyl chloride | 0045000 | 1738 | 100-44-7 |
| Benzenamine | 0035004 | 1547 | 62-53-3 | Benzyl chlorocarbonate | 0046002 | 1739 | 501-53-1 |
| Benzene | 0039000 | 1114 | 71-43-2 | Benzyl chloroformate | 0046000 | 1739 | 501-53-1 |
| Benzene arsonic acid | 0541000 | | | Benzyl cyanide | 0324003 | 2470 | 140-29-4 |
| Benzene chloride | 0093001 | 1134 | 108-90-7 | Benzyl dichloride | 0047002 | 1886 | 98-87-3 |
| (Chloromethyl) benzene | 0045002 | 1738 | 100-44-7 | Benzyl dimethyl amine | 0555000 | 2619 | |
| Benzene fluoride | 0209001 | 2387 | 462-06-6 | Benzyl dimethyl octadecyl ammonium chloride | 0556000 | | |
| Benzene hexachloride | 0542000 | 2729 | | Benzyl ether | 0124001 | | 103-50-4 |
| Benzene methylal | 1838003 | | 100-52-7 | Benzyl iodide | 0557000 | 2653 | |
| Benzene nitro | 1842001 | 1662 | 98-95-3 | Benzyl nitrile | 0324004 | 2470 | 140-29-4 |
| Benzene phosphorous dichloride | 0327001 | 2798 | 644-97-3 | Benzyl oxide | 0124002 | | 103-50-4 |
| Benzene sulfonyl chloride | 0543000 | 2225 | | Benzyl trichloride | 0042003 | 2226 | 98-07-7 |
| Benzeneacetonitrile | 0324002 | 2470 | 140-29-4 | Benzyl trimethyl ammonium chloride | 0558000 | | |
| Benzenecarbonal | 1838002 | | 100-52-7 | Benzyl violet | 0559000 | | |
| Benzenecarbonyl chloride | 0043001 | 1736 | 98-88-4 | Benzylene chloride | 0047003 | 1886 | 98-87-3 |
| Benzenehexahydride | 0115001 | 1145 | 108-94-1 | Benzylidene chloride | 0047000 | 1886 | 98-87-3 |
| Benzenenitrile | 0040001 | 2224 | 100-47-0 | Beryllium | 0560000 | 1567 | |
| Benzenethiol | 0326001 | 2337 | 108-98-5 | Beryllium chloride | 0561000 | 1566 | |
| Benzenol | 0323003 | | 108-95-2 | Beryllium fluoride | 0562000 | 1566 | |
| Benzidine | 0544000 | 1885 | | Beryllium nitrate | 0563000 | 2464 | |
| Benzin | 0299001 | | 8030-30-6 | Beryllium oxide | 0564000 | 1566 | |
| Benzo (A) anthracene | 0545000 | | | Beryllium sulfate | 0565000 | 1566 | |
| Benzo (A) pyrene | 0546000 | | | beta-Butyrolactone | 0606000 | | |
| Benzo (B) fluoranthene | 0547000 | | | beta-Chloroprene | 0100001 | 1991 | 126-99-8 |
| Benzo (GHI) perylene | 0548000 | | | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---|-----------------|--------|-----------|--------------------------------------|-----------------|--------|------------|
| beta-Endosulfan | 0993000 | | | Boroethane | 0125001 | 1911 | 19287-45-7 |
| beta-Methyl acrolein | 0106006 | 1143 | 4170-30-3 | Boron bromide | 0048001 | 2692 | 10294-33-4 |
| beta-Propiolactone | 0344004 | 1993 | 57-57-8 | Boron chloride | 0049001 | 1741 | 10294-34-5 |
| BHA | 0566000 | | | Boron fluoride | 0050001 | 1008 | 7637-07-2 |
| BHC, alpha- | 0567000 | | | Boron hydride | 1820000 | | |
| BHC, beta- | 0568000 | | | Boron tribromide | 0048000 | 2692 | 10294-33-4 |
| BHC, delta- | 0569000 | | | Boron trichloride | 0049000 | 1741 | 10294-34-5 |
| BHC, gamma- | 0570000 | | | Boron trifluoride | 0050000 | 1008 | 7637-07-2 |
| BIC | 0069001 | 2485 | 111-36-4 | Boron trifluoride; dimethyl etherate | 0585000 | 2965 | |
| Bicyclopentadiene | 0137001 | 2048 | 77-73-6 | Bottled gas | 0252001 | 1075 | 68476-85-7 |
| Biethylene | 0059002 | 1010 | 106-99-0 | BPL | 0344001 | 1993 | 57-57-8 |
| Bimethyl | 0173002 | | 74-84-0 | Brimstone | 0365002 | 1350 | 7704-34-9 |
| Biocide | 0010003 | 1092 | 79-06-1 | Brom | 0051001 | 1744 | 7726-95-6 |
| Biogas | 0257002 | | 74-82-8 | Bromacil | 0586000 | | |
| Bioxirane | 0138001 | | 1464-53-5 | Bromadiolone | 0587000 | | |
| Biphenyl | 0571000 | | | Bromide fluoride | 0052001 | 1745 | 7789-30-2 |
| Bis-(2-aminoethyl) amine | 0143002 | 2079 | 111-40-0 | Bromine | 0051000 | 1744 | 7726-95-6 |
| Bis-(2-chloro-1-methyl ethyl) ether | 0574000 | 2490 | | Bromine chloride | 0588000 | 2901 | |
| Bis-(2-chloroethoxy) methane | 0572000 | | | Bromine cyanide | 0110000 | 1889 | 506-68-3 |
| Bis-(2-chloroethyl) ether | 0129001 | 1916 | 111-44-4 | Bromine fluoride | 0053001 | 1746 | 7787-71-5 |
| Bis-(2-chloroisopropyl) ether | 0573000 | 2490 | | Bromine pentafluoride | 0052000 | 1745 | 7789-30-2 |
| Bis-(2-ethyl hexyl) adipate | 0575000 | | | Bromine trifluoride | 0053000 | 1746 | 7787-71-5 |
| Bis-(2-ethyl hexyl) phthalate | 0576000 | | | Bromoacetic acid | 0589000 | 1938 | |
| Bis-(chloromethyl) ether | 0133002 | 2249 | 542-88-1 | Bromoacetone | 0590000 | 1569 | |
| Bis-(chloromethyl) ketone | 0127001 | 2649 | 534-07-6 | Bromoacetyl bromide | 0054000 | 2513 | 598-21-0 |
| Bismuth oxychloride | 0577000 | | | Bromoallylene | 0019001 | 1099 | 106-95-6 |
| Bis-O,O-diethylpyrophosphoric anhydride | 0377002 | | 107-49-3 | Bromobenzene | 0055000 | 2514 | 108-86-1 |
| Bisphenol A | 0578000 | | | Bromochloromethane | 0592000 | 1887 | |
| Bisphenol A diglycidyl ether | 0579000 | | | Bromocyan | 0110001 | 1889 | 506-68-3 |
| Bisulfite | 0367001 | 1079 | 7446-09-5 | Bromoethanoyl bromide | 0054001 | 2513 | 598-21-0 |
| Bithionol | 0580000 | | | Bromoethene | 0404001 | 1085 | 593-60-2 |
| Bitoscanate | 0581000 | | | Bromoethylene | 0404002 | 1085 | 593-60-2 |
| Bivinyll | 0059003 | 1010 | 106-99-0 | Bromoform | 0594000 | 2515 | |
| B-K Liquid | 0360001 | 1791 | 7681-52-9 | Bromofume | 0192001 | 1605 | 106-93-4 |
| Blasting oil | 0306002 | 0143 | 55-63-0 | Brom-o-gas | 0268001 | 1062 | 74-83-9 |
| Bleach | 0360002 | 1791 | 7681-52-9 | Bromomethane | 0268002 | 1062 | 74-83-9 |
| Blue oil | 0035005 | 1547 | 62-53-3 | Bromophenylmethane | 0044002 | 1737 | 100-39-0 |
| Bolero | 0582000 | | | Bromopropyne | 0058001 | 2345 | 106-96-7 |
| Bondolane A | 0364001 | | 126-33-0 | Bromotrifluoroethylene | 0599000 | 2419 | |
| Bonoform | 0374002 | 1702 | 79-34-5 | Bromotrifluoromethane | 0600000 | 1009 | |
| Boric acid | 0583000 | | | Brucine | 0601000 | 1570 | |
| Borneol | 0584000 | 1312 | | Butadiene | 0059000 | 1010 | 106-99-0 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|------------|-----------------------------------|-----------------|--------|----------|
| Butadiene diepoxide | 0138002 | | 1464-53-5 | Butyric acid chloride | 0075002 | 2353 | 141-75-3 |
| Butadiene dioxide | 0138003 | | 1464-53-5 | Butyric acid nitrile | 0074002 | 2411 | 109-74-0 |
| Butal | 0073001 | 1129 | 123-72-8 | Butyric acid, ethyl ester | 0182001 | 1180 | 105-54-4 |
| Butaldehyde | 0073000 | 1129 | 123-72-8 | Butyric acid, methyl ester | 0272001 | 1237 | 623-42-7 |
| Butanal | 0073003 | 1129 | 123-72-8 | Butyric chloride | 0075003 | 2353 | 141-75-3 |
| Butane | 0060000 | 1011 | 106-97-8 | Butyronitrile | 0074000 | 2411 | 109-74-0 |
| Butane nitrile | 0074001 | 2411 | 109-74-0 | Butyryl chloride | 0075000 | 2353 | 141-75-3 |
| Butanedione | 0602000 | 2346 | | BZCF | 0046003 | 1739 | 501-53-1 |
| Butanethiol | 0070002 | 2347 | 109-79-5 | | | | |
| Butanoyl chloride | 0075001 | 2353 | 141-75-3 | C.I. acid blue 9, diammonium salt | 0734000 | | |
| Butene | 0066001 | 1012 | 25167-67-3 | C.I. acid blue 9, disodium salt | 0735000 | | |
| Butyl acetic acid | 0077001 | 2829 | 142-62-1 | C.I. acid green 3 | 0736000 | | |
| Butyl acid phosphate | 0608000 | 1718 | | C.I. basic green 4 | 0737000 | | |
| Butyl acrylate | 0062000 | 2348 | 141-32-2 | C.I. basic red 1 | 0738000 | | |
| Butyl alcohol | 0063002 | 1120 | 75-65-0 | C.I. disperse yellow 3 | 0739000 | | |
| Butyl aldehyde | 0073004 | 1129 | 123-72-8 | C.I. food red 15 | 0741000 | | |
| Butyl benzyl phthalate | 0614000 | | | C.I. food red 5 | 0740000 | | |
| Butyl bromide | 0056001 | 1126 | 109-65-9 | C.I. solvent orange 7 | 0742000 | | |
| Butyl butyrate | 0615000 | | | C.I. solvent yellow 14 | 0744000 | | |
| Butyl chloride | 0094001 | 1127 | 109-69-3 | C.I. solvent yellow 3 | 0743000 | | |
| Butyl ethanoate | 0061003 | 1123 | 123-86-4 | C.I. vat yellow 4 | 0747000 | | |
| Butyl ether | 0619000 | 1149 | | Cacodylic acid | 0633000 | 1572 | |
| Butyl ethylene | 0222001 | 2370 | 592-41-6 | Cadmium acetate | 0635000 | | |
| Butyl isocyanate | 0069002 | 2485 | 111-36-4 | Cadmium bromide | 0636000 | | |
| Butyl isovalerate | 0621000 | | | Cadmium chloride | 0637000 | | |
| Butyl mercaptan | 0070000 | 2347 | 109-79-5 | Cadmium fluoroborate | 0638000 | | |
| Butyl methyl ether | 0623000 | 2350 | | Cadmium nitrate | 0639000 | | |
| Butyl nitrite | 0624000 | 2351 | | Cadmium oxide | 0640000 | | |
| Butyl toluene | 0629000 | 2667 | | Cadmium stearate | 0641000 | | |
| Butyl, decyl, cetyl-eicosyl methacrylate | 0617000 | | | Cadmium sulfate | 0642000 | | |
| Butyl-2-propenoate | 0062003 | 2348 | 141-32-2 | Cadmium (powder) | 0634000 | | |
| Butylacetone | 0267002 | 1110 | 110-43-0 | CADOXTBH | 0068001 | | 75-91-2 |
| Butylamine | 0064002 | 1125 | 109-73-9 | Calcium | 0643000 | 1401 | |
| Butylated hydroxyanisole | 0613000 | | | Calcium acetylde | 0076002 | 1402 | 75-20-7 |
| Butylene | 0066000 | 1012 | 25167-67-3 | Calcium arsenite | 0644000 | 1574 | |
| Butylethylamine | 0181001 | 2734 | 13360-63-9 | Calcium carbide | 0076000 | 1402 | 75-20-7 |
| Butylsilicon trichloride | 0071001 | 1747 | 7521-80-4 | Calcium chlorate | 0645000 | 1452 | |
| Butyltrichlorosilane | 0071000 | 1747 | 7521-80-4 | Calcium chloride | 0646000 | | |
| Butynediol | 0072003 | 2716 | 110-65-6 | Calcium chromate | 0657000 | 9096 | |
| Butyral | 0073005 | 1129 | 123-72-8 | Calcium cyanide | 0658000 | 1575 | |
| Butyraldehyde | 0073002 | 1129 | 123-72-8 | Calcium fluoride | 0659000 | | |
| Butyric acid | 0630000 | | | Calcium hydride | 0660000 | 1404 | |
| | | | | Calcium hydroxide | 0661000 | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------|-----------------|--------|-----------|-------------------------------------|-----------------|--------|------------|
| Calcium hypochlorite | 0662000 | 1748 | | Carbon oxychloride | 0329002 | 1076 | 75-44-5 |
| Calcium nitrate | 0663000 | 1454 | | Carbon oxyfluoride | 0084003 | 2414 | 353-50-4 |
| Calcium oxide | 0664000 | 1910 | | Carbon oxysulfide | 0085002 | 2204 | 463-58-1 |
| Calcium peroxide | 0665000 | 1457 | | Carbon sulfide | 0081003 | 1131 | 75-15-0 |
| Calcium phosphate | 0666000 | | | Carbon tet | 0083003 | 1846 | 56-23-5 |
| Calcium phosphide | 0667000 | 1360 | | Carbon tetrachloride | 0083000 | 1846 | 56-23-5 |
| Calcium resinate | 0668000 | | | Carbena | 0083001 | 1846 | 56-23-5 |
| Camphene | 0669000 | 9011 | | Carbonic acid anhydride | 0080001 | 1013 | 124-38-9 |
| Camphor oil | 0670000 | 1130 | | Carbonic acid gas | 0080002 | 1013 | 124-38-9 |
| Cantharidin | 0671000 | | | Carbonic acid, diethyl ester | 0142001 | 2366 | 105-58-8 |
| Caproic acid | 0077000 | 2829 | 142-62-1 | Carbonic anhydride | 0080003 | 1013 | 124-38-9 |
| Caprolactam | 0672000 | | | Carbonic difluoride | 0084001 | 2414 | 353-50-4 |
| Capronic acid | 0077002 | 2829 | 142-62-1 | Carbonic ether | 0142002 | 2366 | 105-58-8 |
| Caprylene | 0313001 | | 111-66-0 | Carbonic oxide | 0082001 | 1016 | 630-08-0 |
| Capsine | 0167001 | 1598 | 534-52-1 | Carbonyl chloride acid, ethyl ester | 0185001 | 1182 | 541-41-3 |
| Captan | 0673000 | 9099 | | Carbonyl chloride | 0329003 | 1076 | 75-44-5 |
| Carbachol | 0078001 | | 51-83-2 | Carbonyl fluoride | 0084000 | 2414 | 353-50-4 |
| Carbachol chloride | 0078000 | | 51-83-2 | Carbonyl sulfide | 0085000 | 2204 | 463-58-1 |
| Carbacholin | 0078002 | | 51-83-2 | Carene | 0676000 | | |
| Carbacholine dichloride | 0078003 | | 51-83-2 | Casing head gasoline | 0217001 | 1203 | 8006-61-9 |
| Carbacryl | 0013001 | 1093 | 107-13-1 | Caswell No.805 | 0361001 | 1692 | 57-24-9 |
| Carbamic acid, ammonium salt | 0026002 | 9083 | 1111-78-0 | Catechol | 0677000 | | |
| Carbamide peroxide | 0401001 | 1511 | 124-43-6 | Caustic potash solution | 0647000 | 1814 | |
| Carbamiotin | 0078004 | | 51-83-2 | Caustic soda | 0359002 | | 1310-73-2 |
| Carbamoyl dimethyl chloride | 0154001 | 2262 | 79-44-7 | Caustic soda, solution | 0359003 | | 1310-73-2 |
| Carbamyl | 0016001 | 2757 | 116-06-3 | Cellon | 0374003 | 1702 | 79-34-5 |
| Carbaryl (solid) | 0674000 | 2757 | | Certox | 0361002 | 1692 | 57-24-9 |
| Carbide | 0076003 | 1402 | 75-20-7 | Cesium | 0678000 | 1407 | |
| Carbinol | 0260001 | 1230 | 67-56-1 | CHA | 0118003 | 2357 | 108-91-8 |
| Carbofuran | 0079000 | 2757 | 1563-66-2 | Chloral | 0086000 | 2075 | 75-87-6 |
| Carbolic acid | 0323004 | | 108-95-2 | Chloramben | 0679000 | | |
| Carbolic oil | 0675000 | 2821 | | Chlorbisan | 0680000 | | |
| Carbon bisulfide | 0081001 | 1131 | 75-15-0 | Chlordane, flammable liquid | 0681000 | 2762 | |
| Carbon bisulphide | 0081002 | 1131 | 75-15-0 | Chlordecone | 0682000 | | |
| Carbon chloride | 0083002 | 1846 | 56-23-5 | Chlorex | 0129002 | 1916 | 111-44-4 |
| Carbon dichloride oxide | 0329001 | 1076 | 75-44-5 | Chlorfenvinfos | 0683000 | | |
| Carbon difluoride oxide | 0084002 | 2414 | 353-50-4 | Chloride of phosphorous | 0335001 | 1809 | 7719-12-2 |
| Carbon dioxide | 0080000 | 1013 | 124-38-9 | Chlorine | 0087000 | 1017 | 7782-50-5 |
| Carbon disulfide | 0081000 | 1131 | 75-15-0 | Chlorine cyanide | 0111001 | 1589 | 506-78-5 |
| Carbon monoxide | 0082000 | 1016 | 630-08-0 | Chlorine dioxide | 0088002 | 9191 | 10049-04-4 |
| Carbon nitride | 0109001 | 1026 | 460-19-5 | Chlorine dioxide hydrate | 0088000 | 9191 | 10049-04-4 |
| Carbon oxide | 0082002 | 1016 | 630-08-0 | Chlorine dioxide hydrate (frozen) | 0088003 | 9191 | 10049-04-4 |
| Carbon oxide sulfide | 0085001 | 2204 | 463-58-1 | Chlorine fluoride | 0089001 | 1749 | 7790-91-2 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------------|-----------------|--------|------------|-------------------------------|-----------------|--------|------------|
| Chlorine monoxide | 0684000 | | | Chloromethyl cyanide | 0091002 | 2668 | 107-14-2 |
| Chlorine pentafluoride | 0685000 | 2548 | | Chloromethyl ether | 0133004 | 2249 | 542-88-1 |
| Chlorine peroxide | 0088004 | 9191 | 10049-04-4 | Chloromethyl ethyl ether | 0700000 | 2354 | |
| Chlorine sulfide | 0366001 | 1828 | 10545-99-0 | Chloromethyl methyl ether | 0701000 | 1239 | |
| Chlorine trifluoride | 0089000 | 1749 | 7790-91-2 | Chloromethyloxirane | 0172002 | 2023 | 106-89-8 |
| Chlormephos | 0686000 | | | Chloronitrobenzene | 0097000 | 1578 | |
| Chlormequat chloride | 0687000 | | | Chlorophenyl methane | 0045003 | 1738 | 100-44-7 |
| Chloro methyl sulfane | 0258001 | 3246 | 124-63-0 | Chloropicrin | 0099000 | 1580 | 76-06-2 |
| Chloro(chloromethoxy)methane | 0133003 | 2249 | 542-88-1 | Chloropicrin: methyl chloride | 0706000 | 1582 | |
| Chloroacetaldehyde | 0090000 | 2232 | 107-20-0 | Chloropivaloyl chloride | 0707000 | 9263 | |
| Chloroacetaldehyde monomer | 0090002 | 2232 | 107-20-0 | Chloroprene | 0100000 | 1991 | 126-99-8 |
| Chloroacetic acid | 0688000 | 1751 | | Chloropropene | 0020002 | 1100 | 107-05-1 |
| Chloroacetic acid chloride | 0092001 | 1752 | 79-04-9 | Chloropropham | 0712000 | | |
| Chloroacetic acid, ethyl ester | 0184001 | 1181 | 105-39-5 | Chloropropylene | 0020004 | 1100 | 107-05-1 |
| Chloroacetic acid, methyl ester | 0274001 | 2295 | 96-34-4 | Chloropropylene oxide | 0172003 | 2023 | 106-89-8 |
| Chloroacetic chloride | 0092002 | 1752 | 79-04-9 | Chlorosulfane | 0369001 | 1828 | 10025-67-9 |
| Chloroacetone | 0689000 | 1695 | | Chlorosulfonic acid | 0103000 | 1454 | 7790-94-5 |
| Chloroacetoneitrile | 0091000 | 2668 | 107-14-2 | Chlorosulfuric acid | 0103001 | 1454 | 7790-94-5 |
| Chloroacetophenone | 0690000 | 1697 | | Chlorothalonil | 0715000 | | |
| Chloroacetyl chloride | 0092000 | 1752 | 79-04-9 | Chlorotoluene | 0104000 | 2238 | 106-43-4 |
| Chloroaldehyde | 0090003 | 2232 | 107-20-0 | Chlorotrifluoride | 0089002 | 1749 | 7790-91-2 |
| Chloroallylene | 0020001 | 1100 | 107-05-1 | Chlorotrifluoroethane | 0718000 | 1983 | |
| Chlorobenzene | 0093000 | 1134 | 108-90-7 | Chlorotrifluoroethylene | 0394001 | 1082 | 79-38-9 |
| Chlorobenzilate | 0692000 | | | Chlorotrifluoromethane | 0719000 | 1022 | |
| Chlorobutadiene | 0100002 | 1991 | 126-99-8 | Chlorotrimethylsilane | 0398001 | 1298 | 75-77-4 |
| Chlorobutane | 0094000 | 1127 | 109-69-3 | Chloroxuron | 0720000 | | |
| Chlorocarbonic acid, ethyl ester | 0185002 | 1182 | 541-41-3 | Chlorpyrifos | 0105000 | 2783 | 2921-88-2 |
| Chlorocyan | 0111002 | 1589 | 506-78-5 | Chlorthiophos | 0721000 | | |
| Chlorocyanogen | 0111003 | 1589 | 506-78-5 | Chlorylen | 0389001 | 2831 | 71-55-6 |
| Chlorodibromomethane | 0695000 | | | Choline chloride carbamate | 0078005 | | 51-83-2 |
| Chlorodifluoromethane | 0696000 | 1018 | | CHP | 0107002 | 2116 | 80-15-9 |
| Chloroethanal | 0090004 | 2232 | 107-20-0 | Chromic acetate | 0722000 | 9101 | |
| Chloroethane | 1825000 | | | Chromic acid | 0723000 | 1755 | |
| Chloroethanenitrile | 0091001 | 2668 | 107-14-2 | Chromic anhydride | 0724000 | 1463 | |
| Chloroethanol | 0189003 | 1135 | 107-07-3 | Chromic sulfate | 0729000 | 9100 | |
| Chloroethene | 0405001 | 1086 | 75-01-4 | Chromium (dust) | 0730000 | | |
| Chloroethyl chloroformate | 0095000 | 2742 | 627-11-2 | Chromium oxychloride | 0731000 | 1758 | |
| Chloroethylene | 0405002 | 1086 | 75-01-4 | Chromous chloride | 0732000 | 9102 | |
| Chloroform | 0096000 | 1888 | 67-66-3 | Chrysene | 0733000 | | |
| Chloroformic acid, isopropyl ester | 0247001 | 2407 | 108-23-6 | Cinnamenol | 0362001 | 2055 | 100-42-5 |
| Chloroformyl chloride | 0329004 | 1076 | 75-44-5 | cis-Butene | 0066002 | 1012 | 25167-67-3 |
| Chlorohydrins | 0699000 | | | Citric acid | 0745000 | | |
| Chloromethane | 0273002 | 1063 | 74-87-3 | Citrus red No.2 | 0746000 | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|----------------------------|-----------------|--------|-----------|----------------------------------|-----------------|--------|-----------|
| Clorox | 0360003 | 1791 | 7681-52-9 | Cresylate spent caustic solution | 0788000 | | |
| CO | 0082003 | 1016 | 630-08-0 | Crimidine | 0789000 | 2588 | |
| Coal gas | 0748000 | 1023 | | Croton oil | 0790000 | | |
| Coal naptha | 0039002 | 1114 | 71-43-2 | Crotonal | 0106003 | 1143 | 4170-30-3 |
| Coal oil | 0249001 | 1223 | 8008-20-6 | Crotonaldehyde (E) | 0106004 | 1143 | 4170-30-3 |
| Cobalt | 0749000 | | | Crotonaldehyde (Stabilized) | 0106000 | 1143 | 4170-30-3 |
| Cobalt acetate | 0750000 | | | Crude oil | 0791000 | | |
| Cobalt bromide | 0751000 | | | CTFE | 0394002 | 1082 | 79-38-9 |
| Cobalt carbonyl | 0752000 | | | Cumene | 0246001 | 1918 | 98-82-8 |
| Cobalt chloride | 0753000 | | | Cumene hydroperoxide | 0107000 | 2116 | 80-15-9 |
| Cobalt fluoride | 0754000 | | | Cumyl hydroperoxide | 0107003 | 2116 | 80-15-9 |
| Cobalt formate | 0755000 | 9104 | | Cupferron | 0792000 | | |
| Cobalt nitrate | 0756000 | | | Cupriethylene diamine solution | 0793000 | 1761 | |
| Cobalt sulfamate | 0757000 | | | Curmol | 0246002 | 1918 | 98-82-8 |
| Cobalt sulfate | 0758000 | | | Cyanazine | 0794000 | | |
| Cocculus | 0759000 | 1584 | | Cyanoacetic acid | 0108000 | | 372-09-8 |
| Coconut oil:edible | 0760000 | | | Cyanoacetonitrile | 0254001 | 2647 | 109-77-3 |
| Colchicine | 0761000 | | | Cyanobenzene | 0040002 | 2224 | 100-47-0 |
| Collodion | 0762000 | 2059 | | Cyanobromide | 0110002 | 1889 | 506-68-3 |
| Copper | 0763000 | | | Cyanoethane | 0346001 | 2404 | 107-12-0 |
| Copper acetate | 0764000 | 9106 | | Cyanoethylene | 0013002 | 1093 | 107-13-1 |
| Copper acetoarsenite | 0765000 | 1585 | | Cyanogen | 0109000 | 1026 | 460-19-5 |
| Copper arsenite | 0766000 | 1586 | | Cyanogen bromide | 0110003 | 1889 | 506-68-3 |
| Copper bromide | 0767000 | | | Cyanogen chloride | 0111000 | 1589 | 506-78-5 |
| Copper chloride | 0768000 | 2802 | | Cyanogen iodide | 0112000 | | 506-78-5 |
| Copper cyanide | 0769000 | 1587 | | Cyanogen monoiodide | 0112001 | | 506-78-5 |
| Copper fluoroborate | 0770000 | | | Cyanomethane | 0006001 | 1648 | 75-05-8 |
| Copper formate | 0771000 | | | Cyanomethanol | 0213001 | | 107-16-4 |
| Copper glycinate | 0772000 | | | Cyanotoluene | 0324005 | 2470 | 140-29-4 |
| Copper iodide | 0773000 | | | Cyanuric chloride | 0113000 | 2670 | 108-77-0 |
| Copper lactate | 0774000 | | | Cycasin | 0795000 | | |
| Copper naphthenate | 0775000 | | | Cyclobutane | 0796000 | 2601 | |
| Copper nitrate | 0776000 | | | Cycloheptane | 0114000 | 2241 | 291-64-5 |
| Copper oxalate | 0777000 | | | Cycloheptatriene | 0797000 | 2603 | |
| Copper subacetate | 0778000 | | | Cycloheptene | 0798000 | 2242 | |
| Copper sulfate | 0779000 | | | Cyclohexane | 0115000 | 1145 | 108-94-1 |
| Copper sulfate, ammoniated | 0780000 | 9110 | | Cyclohexanol | 0799000 | | |
| Copper tartrate | 0781000 | 9111 | | Cyclohexanone | 0116000 | 1915 | 108-94-1 |
| Coumaphos | 0782000 | 2783 | | Cyclohexanone peroxide | 0800000 | 2119 | |
| Coumatetralyl | 0783000 | | | Cyclohexatriene | 0039003 | 1114 | 71-43-2 |
| Creosote, coal tar | 0784000 | 1993 | | Cyclohexene | 0801000 | 2256 | |
| Cresols | 0786000 | 2076 | | Cyclohexenyl trichlorosilane | 0802000 | 1762 | |
| Cresyl glycidyl ether | 0787000 | | | Cycloheximide | 0117000 | | 66-81-9 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|----------------------------|-----------------|--------|------------|-----------------------------------|-----------------|--------|------------|
| Cyclohexyl acetate | 0804000 | 2243 | | Diallate | 0829000 | | |
| Cyclohexyl isocyanate | 0805000 | 2488 | | Diallyl ether | 0831000 | 2360 | |
| Cyclohexylamine | 0118000 | 2357 | 108-91-8 | Diallylamine | 0830000 | 2359 | |
| Cyclohexylketone | 0116002 | 1915 | 108-94-1 | Diamide | 0223002 | | 302-02-2 |
| Cyclohexylmethane | 0276001 | 2296 | 108-87-2 | Diamine | 0223004 | | 302-02-2 |
| Cyclopentane | 0119000 | 1146 | 142-29-0 | Diamine hydrate | 0223003 | | 302-02-2 |
| Cyclopentanol | 0806000 | 2244 | | Diamine sulfate | 0224001 | | 10034-93-2 |
| Cyclopentanone | 0807000 | 2245 | | Diaminotoluene | 0385001 | 1709 | 95-80-7 |
| Cyclopentene | 0120000 | 2246 | 142-29-0 | Diammonium sulfate | 0833000 | | |
| Cyclopentimine | 0338002 | 2401 | 110-89-4 | Diammonium sulfide | 0029002 | 2683 | 12135-76-1 |
| Cyclopropane | 0121000 | 1027 | 95-75-7 | Diammonium sulfite | 0030001 | 9090 | 10196-04-0 |
| | | | | Diatol | 0142003 | 2366 | 105-58-8 |
| | | | | Diazan | 0171001 | | 514-73-8 |
| Dalapon | 0809000 | 1760 | | Diazinon | 0836000 | 2783 | |
| DCE | 0408001 | 1303 | 75-35-4 | Diazomethane | 0837000 | | |
| DCEE | 0129003 | 1916 | 111-44-4 | Dibenzo (A,E) pyrene | 0838000 | | |
| DCP | 0137004 | 2048 | 77-73-6 | Dibenzo (A,H) anthracene | 0845000 | | |
| DDC | 0154002 | 2262 | 79-44-7 | Dibenzo (A,H) pyrene | 0846000 | | |
| DDD | 0810000 | 2761 | | Dibenzo (A,I) pyrene | 0847000 | | |
| DEA | 0140002 | 1154 | 109-89-7 | Dibenzo (A,J) acridine | 0848000 | | |
| DEAE | 0141001 | 2686 | 100-37-8 | Dibenzo (A,L) pyrene | 0849000 | | |
| Decaborane | 0123000 | 1868 | 17702-41-9 | Dibenzofuran | 0851000 | | |
| Decaborane tetrahydride | 0123002 | 1868 | 17702-41-9 | Dibenzoyl peroxide | 0852000 | 2087 | |
| Decaborane(14) | 0123001 | 1868 | 17702-41-9 | Dibenzyl ether | 0124000 | | 103-50-4 |
| Decabromodiphenyl oxide | 0812000 | | | Diborane | 0125000 | 1911 | 19287-45-7 |
| Decahydronaphthalene | 0813000 | 1147 | | Diborane hexahydride | 0125002 | 1911 | 19287-45-7 |
| Decaldehyde | 0814000 | | | Dibromoethane | 0192003 | 1605 | 106-93-4 |
| Decanoic acid | 0815000 | | | Dibromomethane | 0126000 | 2664 | 74-95-3 |
| DEK | 0146001 | 1156 | 96-22-0 | Dibutyl phenol | 0860000 | | |
| Demeton | 0820000 | | | Dibutyl phthalate | 0861000 | | |
| Demeton-s-methyl | 0821000 | | | Dicamba | 0863000 | | |
| DEN | 0140003 | 1154 | 109-89-7 | Dichlobenil | 0864000 | | |
| Denatured alcohol | 0177004 | 1170 | 64-17-5 | Dichlone | 0865000 | | |
| DETA | 0143003 | 2079 | 111-40-0 | Dichloricide | 0128002 | 1592 | 106-46-7 |
| Deuterium | 0822000 | 1957 | | Dichloro-1,2-propane | 0351002 | 1279 | 78-87-5 |
| Dextrose solution | 0823000 | | | Dichloroacetic acid | 0866000 | 1764 | |
| Diacetone alcohol | 0824000 | 1148 | | Dichloroacetic acid, methyl ester | 0278001 | 2299 | 116-54-1 |
| Diacetone alcohol peroxide | 0825000 | 2163 | | Dichloroacetyl chloride | 0867000 | 1765 | |
| Diacetyl | 0826000 | 2346 | | Dichloroacetylene | 0868000 | | |
| Diacetylmethane | 0320003 | 2310 | 123-54-6 | Dichlorobromomethane | 0870000 | | |
| Diaflan | 0394003 | 1082 | 79-38-9 | Dichlorobutene | 1839001 | 2920 | |
| Diakon | 0290001 | 1247 | 80-62-6 | Dichlorodifluoromethane | 0871000 | 1028 | |
| Dialifos | 0828000 | 3018 | | Dichlorodimethylsilane | 0155001 | 1162 | 75-78-5 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-------------------------------|-----------------|--------|------------|---|-----------------|--------|-----------|
| Dichlorodimethylsilicon | 0155002 | 1162 | 75-78-5 | Diethyl ether | 0144000 | 1155 | 60-29-7 |
| Dichloroethane | 0193002 | 1184 | 107-06-2 | Diethyl glycol | 0195003 | 1153 | 629-14-1 |
| Dichloroether | 0129004 | 1916 | 111-44-4 | Diethyl oxide | 0144001 | 1155 | 60-29-7 |
| Dichloroethyl ether | 0129005 | 1916 | 111-44-4 | Diethyl phthalate | 0901000 | | |
| Dichloroethylarsine | 0186002 | 1892 | 598-14-1 | Diethyl stilbestrol | 0902000 | | |
| Dichloroethylphenylsilane | 0204001 | 2435 | 1125-27-5 | Diethyl sulfate | 0903000 | 1594 | |
| Dichloroethylsilane | 0187001 | 1183 | 1789-58-8 | Diethyl sulfide | 0904000 | 2375 | |
| Dichloromethane | 0132000 | 1593 | 75-09-2 | Diethyl zinc | 0905000 | 1366 | |
| Dichloromethyl benzene | 0047004 | 1886 | 98-87-3 | Diethylaluminum chloride | 0887000 | | |
| Dichloromethyl ether | 0133000 | 2249 | 542-88-1 | Diethylaluminum hydride | 0888000 | | |
| Dichloromethylphenylsilane | 0873000 | | | Diethylamine | 0140000 | 1154 | 109-89-7 |
| Dichloromethylsilane | 0279001 | 1242 | 75-54-7 | Diethylaminoethanol | 0141000 | 2686 | 100-37-8 |
| Dichloromonofluoromethane | 0874000 | 1029 | | Diethylene ether | 0169002 | 1165 | 123-91-1 |
| Dichlorophenoxyacetic acid | 0122001 | 2765 | 94-75-7 | Diethylene glycol | 0894000 | | |
| Dichlorophenoxyacetic esters | 0876000 | | | Diethylene glycol dibutyl ether | 0895000 | | |
| Dichlorophenyl phosphine | 0327002 | 2798 | 644-97-3 | Diethylene glycol dimethyl ether | 0896000 | | |
| Dichlorophenylarsine | 0325001 | 1556 | 696-28-6 | Diethylene glycol monobutyl ether | 0897000 | | |
| Dichlorophenyltrichlorosilane | 0134000 | 1766 | 27137-85-5 | Diethylene glycol monobutyl ether acetate | 0898000 | | |
| Dichloropropene | 0135000 | 2047 | 542-75-6 | Diethylene glycol monoethyl ether | 0899000 | | |
| Dichloropropionic acid | 0878000 | 1760 | | Diethylene glycol monomethyl ether | 0900000 | | |
| Dichloropropylene | 0135003 | 2047 | 542-75-6 | Diethylene oxide | 1823000 | | |
| Dichlorosilane | 0136000 | 2189 | 4109-96-0 | Diethylene oximide | 0298001 | 2054 | 110-91-8 |
| Dichlorosilicone | 0136001 | 2189 | 4109-96-0 | Diethylenetriamine | 0143000 | 2079 | 111-40-0 |
| Dichlorosulfane | 0366002 | 1828 | 10545-99-0 | Diethylenimine oxide | 0298002 | 2054 | 110-91-8 |
| Dichlorotetrafluoroethane | 0879000 | 1958 | | Diethylethanolamine | 0141003 | 2686 | 100-37-8 |
| Dichlorvos | 0882000 | 2783 | | Diethylketone | 0146000 | 1156 | 96-22-0 |
| Dicofol | 0883000 | | | Difluorine | 0207002 | | 7782-41-4 |
| Dicrotophos | 0884000 | | | Difluorine monoxide | 0316001 | 2190 | 7783-41-7 |
| Dicyan | 0109002 | 1026 | 460-19-5 | Difluoroethane | 0906000 | 1018 | |
| Dicyanogen | 0109003 | 1026 | 460-19-5 | Difluoroethylchloromethane | 0907000 | 1028 | |
| Dicyanomethane | 0254002 | 2647 | 109-77-3 | Difluoroethane | 0147000 | 1030 | 75-37-6 |
| Dicyclopentadiene | 0137000 | 2048 | 77-73-6 | Difluorophosphoric acid | 0909000 | 1768 | |
| Dieldrin | 0885000 | 2761 | | Diglycidyl ether | 0910000 | | |
| Diepoxybutane | 0138000 | | 1464-53-5 | Diheptyl phthalate | 0911000 | | |
| Diesel | 0139001 | | | Dihydrogen dioxide | 0232001 | 2015 | 7722-84-1 |
| Diesel fuel | 0139000 | 1202 | | Dihydrogen selenide | 0233001 | 2202 | 7783-07-5 |
| Diethanol amine | 0886000 | | | Dihydroxirene | 0199001 | 1040 | 75-21-8 |
| Diethyl | 0060002 | 1011 | 106-97-8 | Diisobutyl amine | 0913000 | 2361 | |
| Diethyl benzene | 0891000 | 2049 | | Diisobutyl carbinol | 0914000 | | |
| Diethyl carbamazine citrate | 0892000 | | | | | | |
| Diethyl carbonate | 0142000 | 2366 | 105-58-8 | | | | |
| Diethyl cellosolve | 0195002 | 1153 | 629-14-1 | | | | |
| Diethyl chlorophosphate | 0893000 | | | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|-----------|---|-----------------|--------|------------|
| Diisobutyl ketone | 0916000 | 1157 | | Dimethylacetamide | 0151000 | | 127-19-5 |
| Diisobutyl phthalate | 0917000 | | | Dimethylacetone | 0146002 | 1156 | 96-22-0 |
| Diisobutylene | 0915000 | 2050 | | Dimethylamide acetate | 0151002 | | 127-19-5 |
| Diisodecyl phthalate | 0918000 | | | Dimethylamine solution | 0928000 | 1160 | |
| Diisononyl phthalate | 0919000 | | | Dimethylaminobenzene | 0153001 | 2253 | 121-69-7 |
| Diisooctyl phthalate | 0920000 | | | Dimethylaniline | 0153002 | 2253 | 121-69-7 |
| Diisopropanol amine | 0921000 | | | Dimethylbenzyl hydroperoxide | 0107004 | 2116 | 80-15-9 |
| Diisopropyl benzene (all isomers) | 0922000 | | | Dimethylcarbamic chloride | 0154003 | 2262 | 79-44-7 |
| Diisopropyl benzene hydro- peroxide | 0923000 | 2171 | | Dimethylcarbamoyl chloride | 0154000 | 2262 | 79-44-7 |
| Diisopropyl ether | 0924000 | 1159 | | Dimethylcarbinol | 0242001 | 1219 | 67-63-0 |
| Diisopropylamine | 0148000 | 1158 | 108-18-9 | Dimethyldichlorosilane | 0155000 | 1162 | 75-78-5 |
| Diketene | 0149000 | 2521 | 674-82-8 | Dimethylene diamine | 0191001 | 1604 | 107-15-3 |
| Dimefox | 0925000 | 3018 | | Dimethylene oxide | 0199002 | 1040 | 75-21-8 |
| Dimethoate | 0926000 | | | Dimethylenimine | 0198004 | 1185 | 151-56-4 |
| Dimethylamine, anhydrous | 0152000 | 1032 | 124-40-3 | Dimethylethanolamine | 0933000 | 2051 | |
| Dimethyl | 0173003 | | 74-84-0 | Dimethylmethane | 0341001 | 1978 | 74-98-6 |
| Dimethyl adipate | 0927000 | | | Dimetilan | 0948000 | | |
| Dimethyl carbonate | 0931000 | 1161 | | Di-n-amyl phthalate | 0835000 | | |
| Dimethyl cellosolve | 0150002 | 2252 | 110-71-4 | Di-n-amylamine | 0834000 | 2841 | |
| Dimethyl disulfide | 0156000 | 2381 | 624-92-0 | Di-n-butyl amine | 0854000 | 2248 | |
| Dimethyl ether | 0157000 | 1033 | 115-10-6 | Di-n-butyl ether | 0855000 | 1149 | |
| Dimethyl formamide | 0158000 | 2265 | 68-12-2 | Di-n-butyl ketone | 0857000 | | |
| Dimethyl glutarate | 0934000 | | | Di-n-butyl phthalate | 0862000 | | |
| Dimethyl hexane dihydro- peroxide | 0935000 | 2174 | | Dinitrobenzene | 0166000 | 1597 | |
| Dimethyl hydrogen phosphite | 0936000 | | | Dinitrochlorobenzene | 0949000 | 1577 | |
| Dimethyl ketone | 0004001 | 1090 | 67-64-1 | Dinitrocresol | 0167003 | 1598 | 534-52-1 |
| Dimethyl mercury | 0937000 | | | Dinitrogen monoxide | 0311002 | | 10024-97-2 |
| Dimethyl monosulfide | 0163001 | 1164 | 75-18-3 | Dinitrogen tetroxide | 0305001 | 1067 | 10102-44-0 |
| Dimethyl phenylamine | 0153003 | 2253 | 121-69-7 | Dinitro-o-cresol | 0167000 | 1598 | 534-52-1 |
| Dimethyl phosphorochlorido- thioate | 0161000 | 2267 | 2524-03-0 | Dinitrophenol (dry) | 0168000 | | 51-28-5 |
| Dimethyl phthalate | 0940000 | | | Dinitrophenol (solution) | 0168001 | | 51-28-5 |
| Dimethyl polysiloxane | 0941000 | | | Dinitrophenol (wetted with >15% water) | 0168002 | | 51-28-5 |
| Dimethyl succinate | 0944000 | | | Di-n-octyl phthalate | 0956000 | | |
| Dimethyl sulfate | 0162000 | 1595 | 77-78-1 | Dinofan | 0168006 | | 51-28-5 |
| Dimethyl sulfide | 0163000 | 1164 | 75-18-3 | Dinonyl phthalate | 0952000 | | |
| Dimethyl sulfoxide | 0945000 | | | Dinoterb | 0953000 | | |
| Dimethyl terephthalate | 0946000 | | | Di-n-propylamine | 0170001 | 2383 | 142-84-7 |
| Dimethyl tetracholorterephthalate | 0947000 | | | Diocetyl adipate | 0954000 | | |
| Dimethyl thiophosphoryl chloride | 0161001 | 2267 | 2524-03-0 | Diocetyl phthalate | 0955000 | | |
| Dimethyl zinc | 0164000 | 1370 | 544-97-8 | Diocetyl sodium sulfosuccinate | 0957000 | | |
| | | | | Dioform | 0131003 | 1150 | 540-59-0 |
| | | | | Dioxathion | 0958000 | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---------------------------------|-----------------|--------|------------|--|-----------------|--------|-----------|
| Dioxygen | 0315002 | | 7782-44-7 | DMSO | 0980000 | | |
| DIPA | 0148001 | 1158 | 108-18-9 | DNA | 0165004 | 1596 | 97-02-9 |
| Dipentene | 0959000 | 2052 | | DNBP | 0981000 | | |
| Diphacinone | 0960000 | | | Dodecanol | 0982000 | | |
| Diphenamide | 0961000 | | | Dodecene | 0983000 | | |
| Diphenyl | 0962000 | | | Dodecyl benzene | 0984000 | | |
| Diphenyl amine | 0963000 | | | Dodecyl benzene sulfonic acid | 0985000 | 2584 | |
| Diphenyl amine chloroarsine | 0964000 | 1698 | | Dodecyl benzene sulfonic acid, calcium | 0986000 | | |
| Diphenyl ether | 0966000 | | | Dodecyl benzene sulfonic acid, isopropyl amine | 0987000 | | |
| Diphenyl methane diisocyanate | 0967000 | 2489 | | Dodecyl benzene sulfonic acid, sodium salt | 0988000 | | |
| Diphenyldichlorosilane | 0965000 | 1769 | | Dodecyl benzene sulfonic acid, triethanolamine | 0989000 | | |
| Diphosgene | 0329005 | 1076 | 75-44-5 | Dodecyl diphenyl ether disulfonate | 0990000 | | |
| Diphosphorus pentasulfide | 0333001 | 1340 | 1314-80-3 | Dodecyl methacrylate | 0994000 | | |
| Dipotassium persulfate | 0340002 | 1492 | 7727-21-1 | Dodecyl sulfate, diethanolamine salt | 0996000 | | |
| Diproanoate | 0106005 | 1143 | 4170-30-3 | Dodecyl sulfate, magnesium salt | 0997000 | | |
| Dipropylamine | 0170000 | 2383 | 142-84-7 | Dodecyl sulfate, sodium salt | 0998000 | | |
| Dipropylene glycol methyl ether | 0970000 | | | Dodecyl sulfate, triethanolamine salt | 0999000 | | |
| Dipropylene glycol | 0968000 | | | Dodecyl/pentadecyl methacrylate | 0995000 | | |
| Dipropylene glycol dibenzoate | 0969000 | | | Dodecyltrichlorosilane | 1000000 | 1771 | |
| Diquat | 0971000 | 2781 | | Dorlone | 0135004 | 2047 | 542-75-6 |
| Direct black 38 | 0972000 | | | Doryl | 0078006 | | 51-83-2 |
| Direct blue 6 | 0973000 | | | Dowcide 7 | 0318001 | 3155 | 87-86-5 |
| Direct brown 95 | 0974000 | | | Dowclene LS | 0389002 | 2831 | 71-55-6 |
| Disulfoton | 0975000 | 2783 | | Dowfume | 1826000 | | |
| Disulfur dichloride | 0369002 | 1828 | 10025-67-9 | Dowtherm | 0991000 | | |
| Disulfuric acid | 0314001 | 1831 | 8014-95-7 | Dry ice | 0080004 | 1013 | 124-38-9 |
| Di-tert-butyl peroxide | 0858000 | 2102 | | Dursban | 0105001 | 2783 | 2921-88-2 |
| Dithane A-4 | 0166007 | 1597 | | Dutch oil | 0193003 | 1184 | 107-06-2 |
| Dithiabutane | 0156001 | 2381 | 624-92-0 | EB | 0179001 | 1175 | 100-41-4 |
| Dithiazanine iodide | 0171000 | | 514-73-8 | ECH | 0172004 | 2023 | 106-89-8 |
| Dithiobiuret | 0976000 | | | ED | 0186003 | 1892 | 598-14-1 |
| Ditridecyl phthalate | 0977000 | | | EDB | 0192004 | 1605 | 106-93-4 |
| Diundecyl phthalate | 0978000 | | | EGM | 0197001 | 1188 | 109-86-4 |
| Diuron | 0979000 | | | EGME | 0197002 | 1188 | 109-86-4 |
| Divinyl | 0059005 | 1010 | 106-99-0 | Elemental phosphorous | 0331002 | | 7723-14-0 |
| Divinylene oxide | 0215001 | 2389 | 110-00-9 | Endosulfan | 1001000 | 2761 | |
| DMA | 1822000 | | | | | | |
| DMAC | 0151004 | | 127-19-5 | | | | |
| DMCC | 0154004 | 2262 | 79-44-7 | | | | |
| DMF | 0158001 | 2265 | 68-12-2 | | | | |
| DMFA | 0158002 | 2265 | 68-12-2 | | | | |
| DMH | 0159002 | 1163 | 57-14-7 | | | | |
| DMPD | 0160002 | | 99-98-9 | | | | |
| DMS | 0163002 | 1164 | 75-18-3 | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------|-----------------|--------|----------|-------------------------------|-----------------|--------|----------|
| Endosulfan sulfate | 1004000 | | | Ethoxylated pentadecanol | 1019000 | | |
| Endothion | 1005000 | | | Ethoxylated tetradecanol | 1020000 | | |
| Endrin | 1006000 | 2761 | | Ethoxylated tridecanol | 1021000 | | |
| Endrin aldehyde | 1007000 | | | Ethyl acetate | 0175000 | 1173 | 141-78-6 |
| EPI | 0172005 | 2023 | 106-89-8 | Ethyl acetoacetate | 1023000 | | |
| Epichlorohydrin | 0172000 | 2023 | 106-89-8 | Ethyl acetylene | 1024000 | 2452 | |
| EPN | 1008000 | | | Ethyl acrylate | 0176000 | 1917 | 140-88-5 |
| Epoxy propane | 0353001 | 1280 | 75-56-9 | Ethyl alcohol | 0177000 | 1170 | 64-17-5 |
| Epoxyethane | 0199003 | 1040 | 75-21-8 | Ethyl aluminum dichloride | 1025000 | | |
| Epoxyethylbenzene | 0363001 | | 96-09-3 | Ethyl aluminum sesquichloride | 1026000 | | |
| Erythrene | 0059006 | 1010 | 106-99-0 | Ethyl amyl ketone | 1027000 | 2271 | |
| Estradiol 17 b | 1009000 | | | Ethyl azinphos | 1029000 | | |
| Estrone | 1010000 | | | Ethyl bromide | 1031000 | 1891 | |
| Ethanal | 0002002 | 1089 | 75-07-0 | Ethyl bromoacetate | 1032000 | 1603 | |
| Ethanamine | 0178002 | 1036 | 75-04-7 | Ethyl butanoate | 0182002 | 1180 | 105-54-4 |
| Ethane dinitrate | 0109004 | 1026 | 460-19-5 | Ethyl butanol | 1033000 | 2275 | |
| Ethane (compressed gas) | 0173000 | | 74-84-0 | Ethyl butyl ether | 1034000 | 1179 | |
| (Diethylamino) ethane | 0392001 | 1296 | 121-44-8 | Ethyl butyrate | 0182000 | 1180 | 105-54-4 |
| Ethane (refrigerated liquid) | 0173001 | | 74-84-0 | Ethyl carbamate | 1036000 | | |
| Ethanediol dimethyl ether | 0150004 | 2252 | 110-71-4 | Ethyl carbonate | 0142004 | 2366 | 105-58-8 |
| Ethanenitrile | 0006002 | 1648 | 75-05-8 | Ethyl cellosolve | 0196002 | 1171 | 110-80-5 |
| Ethanethiol | 0202001 | 2363 | 75-08-1 | Ethyl chloride | 0183000 | 1037 | 75-00-3 |
| Ethanoic acid | 1840002 | | 64-19-7 | Ethyl chloroacetate | 0184000 | 1181 | 105-39-5 |
| Ethanoic anhydride | 0003005 | 1715 | 108-24-7 | Ethyl chlorocarbonate | 0185003 | 1182 | 541-41-3 |
| Ethanol | 0177005 | 1170 | 64-17-5 | Ethyl chloroformate | 0185000 | 1182 | 541-41-3 |
| Ethanolamine | 0174000 | 2491 | 141-43-5 | Ethyl chloromethanoate | 0185004 | 1182 | 541-41-3 |
| Ethanoyl bromide | 0007002 | 1716 | 506-96-7 | Ethyl chlorothioformate | 1037000 | 2826 | |
| Ethanoyl chloride | 0008003 | 1717 | 75-36-5 | Ethyl cyanide | 0346002 | 2404 | 107-12-0 |
| Ethene | 0188002 | 1038 | 74-85-1 | Ethyl cyclohexane | 1038000 | | |
| Ethenoxide | 0199005 | 1040 | 75-21-8 | Ethyl ethanoate | 0175003 | 1173 | 141-78-6 |
| Ethenylbenzene | 0362002 | 2055 | 100-42-5 | Ethyl ether | 0144003 | 1155 | 60-29-7 |
| Ether | 0144002 | 1155 | 60-29-7 | Ethyl formate | 0200000 | 1190 | 109-94-4 |
| Etherin | 0188003 | 1038 | 74-85-1 | Ethyl glycol | 0196004 | 1171 | 110-80-5 |
| Ethienocarb | 1011000 | | | Ethyl glyme | 0195005 | 1153 | 629-14-1 |
| Ethine | 0009001 | 1001 | 74-86-2 | Ethyl hexaldehyde | 1051000 | 1191 | |
| Ethinylcarbinol | 0343001 | 1986 | 107-19-7 | Ethyl hexyl tallate | 1055000 | | |
| Ethinylestradiol | 1012000 | | | Ethyl hydrosulfide | 0202002 | 2363 | 75-08-1 |
| Ethion | 1013000 | 2783 | | Ethyl isocyanate | 0201000 | 2481 | 109-90-0 |
| Ethoprophos | 1014000 | | | Ethyl ketone | 0146003 | 1156 | 96-22-0 |
| Ethoxy triglycol | 1022000 | | | Ethyl lactate | 1057000 | 1192 | |
| Ethoxydihydropyran | 1015000 | | | Ethyl mercaptan | 0202000 | 2363 | 75-08-1 |
| Ethoxyethylbenzene | 1016000 | | | Ethyl methacrylate | 1058000 | 2277 | |
| Ethoxylated dodecanol | 1017000 | | | Ethyl methane sulfonate | 1059000 | | |
| Ethoxylated nonylphenol | 1018000 | | | Ethyl methanoate | 0200001 | 1190 | 109-94-4 |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|----------------------------------|-----------------|--------|------------|---|-----------------|--------|-----------|
| Ethyl methyl ether | 1060000 | 1039 | | Ethylene glycol diethyl ether | 0195000 | 1153 | 629-14-1 |
| Ethyl methyl ketone | 0280002 | 1193 | 78-93-3 | Ethylene glycol dimethyl ether | 0150005 | 2252 | 110-71-4 |
| Ethyl monochloroacetate | 0184002 | 1181 | 105-39-5 | Ethylene glycol ethyl ether | 0196003 | 1171 | 110-80-5 |
| Ethyl nitrate | 1061000 | 1993 | | Ethylene glycol isopropyl ether | 1044000 | | |
| Ethyl nitrile | 0006003 | 1648 | 75-05-8 | Ethylene glycol methyl ether | 0197003 | 1188 | 109-86-4 |
| Ethyl nitrite | 0203000 | 1194 | 109-95-5 | Ethylene glycol monobutyl ether | 1045000 | 2369 | |
| Ethyl oxide | 1821000 | | | Ethylene glycol monobutyl ether acetate | 1046000 | | |
| Ethyl phenol | 1836000 | | | Ethylene glycol monoethyl ether | 0196000 | 1171 | 110-80-5 |
| Ethyl phosphonothioic dichloride | 1062000 | 2927 | | Ethylene glycol monoethyl ether acetate | 1047000 | 1172 | |
| Ethyl phosphorodichloridate | 1063000 | 2927 | | Ethylene glycol monomethyl ether | 0197000 | 1188 | 109-86-4 |
| Ethyl pirimifos | 1064000 | | | Ethylene glycol phenyl ether | 1048000 | | |
| Ethyl propenoate | 0176002 | 1917 | 140-88-5 | Ethylene oxide | 0199000 | 1040 | 75-21-8 |
| Ethyl rhodanate | 0205001 | | 542-90-5 | Ethylene tetrachloride | 0375001 | 1897 | 127-18-4 |
| Ethyl S | 0180002 | 2734 | 538-07-8 | Ethylene thiourea | 1049000 | | |
| Ethyl silicate | 1066000 | 1292 | | Ethylene trichloride | 0390002 | 1710 | 79-01-6 |
| Ethyl sulfate | 1067000 | 1594 | | Ethylenediamine | 0191000 | 1604 | 107-15-3 |
| Ethyl sulfhydrate | 0202003 | 2363 | 75-08-1 | Ethylenediamine tetracetic acid | 1040000 | 9117 | |
| Ethyl sulfocyanate | 0205002 | | 542-90-5 | Ethyleneimine | 0198000 | 1185 | 151-56-4 |
| Ethyl t-butyl ether | 1035000 | | | Ethylformic acid | 0345001 | 1848 | 79-09-4 |
| Ethyl t-butyl ether | 1070000 | | | Ethylidene dichloride | 0130001 | 2362 | 75-34-3 |
| Ethyl thiocyanate | 0205000 | | 542-90-5 | Ethylidene dichloride | 0130002 | 2362 | 75-34-3 |
| Ethyl vinyl ether | 0406001 | 1302 | 109-92-2 | Ethylimine | 0198005 | 1185 | 151-56-4 |
| Ethyl-2-propenoate | 0176003 | 1917 | 140-88-5 | Ethylphenyldichlorosilane | 0204000 | 2435 | 1125-27-5 |
| Ethyl-3-ethoxypropionate | 1050000 | | | Ethyltrichlorosilane | 0206000 | 1196 | 115-21-9 |
| Ethylaldehyde | 0002003 | 1089 | 75-07-0 | Ethyne | 0009002 | 1001 | 74-86-2 |
| Ethylamine | 0178000 | 1036 | 75-04-7 | ETN | 0178003 | 1036 | 75-04-7 |
| Ethylbenzene | 0179000 | 1175 | 100-41-4 | ETOH | 0177006 | 1170 | 64-17-5 |
| Ethyl-bis-(2-chloroethyl) amine | 0180000 | 2734 | 538-07-8 | Eufin | 0142005 | 2366 | 105-58-8 |
| Ethylbutylamine | 0181000 | 2734 | 13360-63-9 | F-12 | 1072000 | 1028 | |
| Ethylchloroarsine | 0186000 | 1892 | 598-14-1 | F-22 | 1073000 | 1018 | |
| Ethylchlorosilane | 0187000 | 1183 | 1789-58-8 | FAA | 0208001 | 2642 | 144-49-0 |
| Ethylene | 0188000 | 1038 | 74-85-1 | Fenamiphos | 1074000 | | |
| Ethylene bromide | 0192005 | 1605 | 106-93-4 | Fenitrothion | 1075000 | | |
| Ethylene carboxylic acid | 0012002 | 2218 | 79-10-7 | Fensulfothion | 1076000 | 2783 | |
| Ethylene chloride | 0193004 | 1184 | 107-06-2 | Ferric ammonium citrate | 1077000 | 9118 | |
| Ethylene chlorohydrin | 0189000 | 1135 | 107-07-3 | Ferric ammonium oxalate | 1078000 | 9119 | |
| Ethylene cyanohydrin | 0190000 | | 109-78-4 | Ferric chloride | 1079000 | 1773 | |
| Ethylene dibromide | 0192000 | 1605 | 106-93-4 | Ferric fluoride | 1080000 | 9120 | |
| Ethylene dichloride | 0193000 | 1184 | 107-06-2 | | | | |
| Ethylene fluoride | 0147002 | 1030 | 75-37-6 | | | | |
| Ethylene fluorohydrin | 0194000 | | 371-62-0 | | | | |
| Ethylene glycol | 1041000 | | | | | | |
| Ethylene glycol acetate | 1042000 | | | | | | |
| Ethylene glycol diacetate | 1043000 | | | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------------|-----------------|--------|------------|--|-----------------|--------|-----------|
| Ferric glycerophosphate | 1081000 | | | Formic acid, isopropyl ester | 0248001 | 2408 | 625-55-8 |
| Ferric nitrate | 1082000 | 1466 | | Formic acid, methyl ester | 0281001 | 1243 | 107-31-3 |
| Ferric sulfate | 1083000 | 9121 | | Formic ether | 0200003 | 1190 | 109-94-4 |
| Ferrous ammonium sulfate | 1084000 | 9122 | | Formothion | 1103000 | | |
| Ferrous chloride | 1085000 | 1759 | | Formparanate | 1104000 | | |
| Ferrous fluoroborate | 1086000 | | | Formyl hydrazino-4-(5-nitro-2-furyl)thiazole | 1105000 | | |
| Ferrous oxalate | 1087000 | | | Formyl trichloride | 0096001 | 1888 | 67-66-3 |
| Ferrous sulfate | 1088000 | 9125 | | Formylic acid | 0214002 | 1779 | 64-18-6 |
| Firedamp | 0257003 | | 74-82-8 | Fosthietan | 1106000 | | |
| FKS | 0210001 | 1778 | 16961-83-4 | Fosvex | 0377003 | | 107-49-3 |
| Flue gas | 0082004 | 1016 | 630-08-0 | Freon 10 | 0083004 | 1846 | 56-23-5 |
| Fluometil | 1089000 | | | Freon 12 | 1107000 | 1028 | |
| Fluoboric acid | 1090000 | 1775 | | Freon 150 | 0193006 | 1184 | 107-06-2 |
| Fluometuron | 1091000 | | | Freon 152 | 0147003 | 1030 | 75-37-6 |
| Fluoranthene | 1092000 | | | Freon 20 | 0096002 | 1888 | 67-66-3 |
| Fluorene | 1093000 | | | Freon 22 | 1108000 | 1018 | |
| Fluoric acid | 0231002 | 1052 | 7664-39-3 | Freon 40 | 0273003 | 1063 | 74-87-3 |
| Fluorine monoxide | 0316002 | 2190 | 7783-41-7 | Freon F12 | 1109000 | | |
| Fluorine oxide | 0316003 | 2190 | 7783-41-7 | Fuberidazole | 1110000 | | |
| Fluorine (compressed gas) | 0207000 | 1045 | 7782-41-4 | Fuel oil #1 | 1828000 | | |
| Fluorine (cryogenic liquid) | 0207001 | 9192 | 7782-41-4 | Fuel oil #2 | 0139002 | | |
| Fluoroacetamide | 1094000 | | | Fuel oil #4 | 0139003 | | |
| Fluoroacetic acid | 0208000 | 2642 | 144-49-0 | Fumaric acid | 1111000 | | |
| Fluoroacetyl chloride | 1095000 | | | Fumette | 0259001 | | 558-25-8 |
| Fluorobenzene | 0209000 | 2387 | 462-06-6 | Fuming sulfuric acid | 0314002 | 1831 | 8014-95-7 |
| Fluoroethanoic acid | 0208003 | 2642 | 144-49-0 | Furadan | 0079001 | 2757 | 1563-66-2 |
| Fluoroethene | 0407001 | 1860 | 75-02-5 | Furadan 3G | 0079002 | 2757 | 1563-66-2 |
| Fluoroethylene | 0407003 | 1860 | 75-02-5 | Furaldehyde | 0216002 | 1199 | 98-01-1 |
| Fluorophosgene | 0084004 | 2414 | 353-50-4 | Furan | 0215000 | 2389 | 110-00-9 |
| Fluorosilicic acid | 0210000 | 1778 | 16961-83-4 | Furfural | 0216000 | 1199 | 98-01-1 |
| Fluorosulfonic acid | 0211000 | 1777 | 7789-21-1 | Furfuryl alcohol | 1112000 | 2874 | |
| Fluorosulfuric acid | 0211001 | 1777 | 7789-21-1 | Furodan | 0079003 | 2757 | 1563-66-2 |
| Fluosilicic acid | 0210002 | 1778 | 16961-83-4 | Fusel oil | 1113000 | 1201 | |
| Fonofos | 1099000 | 2783 | | | | | |
| Forane 22B | 1100000 | | | GAA | 0012003 | 2218 | 79-10-7 |
| Formaldehyde cyanohydrin | 0213000 | | 107-16-4 | Gallic acid | 1114000 | | |
| Formaldehyde (solution) | 0212001 | 2209 | 50-00-0 | Gallium trichloride | 1116000 | | |
| Formaldehyde (solution, flammable) | 0212000 | 1198 | 50-00-0 | Gallium, metal | 1115000 | 2803 | |
| Formalin | 0212002 | | 50-00-0 | Gasoline | 0217000 | 1203 | 8006-61-9 |
| Formamide | 1101000 | | | GDME | 0150006 | 2252 | 110-71-4 |
| Formetanate hydrochloride | 1102000 | | | Germane | 1117000 | 2192 | |
| Formic acid | 0214000 | 1779 | 64-18-6 | Gettysolve B | 0221001 | 1208 | 110-54-3 |
| Formic acid, ethyl ester | 0200002 | 1190 | 109-94-4 | Glacial acetic acid | 1840004 | | 64-19-7 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------|-----------------|--------|-----------|---|-----------------|--------|------------|
| Glacial acrylic acid | 0012004 | 2218 | 79-10-7 | Hexachlorophene | 1140000 | 2875 | |
| Glutaraldehyde solution | 1118000 | | | Hexadecyl sulfate, sodium salt | 1141000 | | |
| Glycerine | 1119000 | | | Hexadecyl trimethyl ammonium chloride | 1142000 | | |
| Glycerol trinitrate | 0306003 | 0143 | 55-63-0 | Hexaethyl tetraphosphate and compressed gas | 1143000 | 1612 | |
| Glycidaldehyde | 1120000 | 2622 | | Hexafluoroacetone | 1144000 | 2420 | |
| Glycidyl methacrylate | 1121000 | | | Hexafluoroethane | 1145000 | 2193 | |
| Glycinol | 0174002 | 2491 | 141-43-5 | Hexafluosilicic acid | 0210003 | 1778 | 16961-83-4 |
| Glycol cyanohydrin | 0190003 | | 109-78-4 | Hexahydroaniline | 0118004 | 2357 | 108-91-8 |
| Glycol dimethyl ether | 0150007 | 2252 | 110-71-4 | Hexahydrobenzene | 0115002 | 1145 | 108-94-1 |
| Glycol methyl ether | 0197004 | 1188 | 109-86-4 | Hexahydropyridine | 0338003 | 2401 | 110-89-4 |
| Glycolonitrile | 0213002 | | 107-16-4 | Hexahydrotoluene | 0276002 | 2296 | 108-87-2 |
| Glyconitrile | 0213003 | | 107-16-4 | Hexamethyl phosphoramidate | 1147000 | | |
| Glyme | 0150008 | 2252 | 110-71-4 | Hexamethylene | 0115003 | 1145 | 108-94-1 |
| Glyme-1 | 0195006 | 1153 | 629-14-1 | Hexamethylene diamine | 1148000 | 2280 | |
| Glyoxal | 1122000 | | | Hexamethylene diisocyanate | 1149000 | 2281 | |
| Gly-oxide | 0401002 | 1511 | 124-43-6 | Hexamethylene tetramine | 1151000 | 1328 | |
| Glyphosate | 0218000 | | 1071-83-6 | Hexamethyleneimine | 1150000 | 2493 | |
| Grain alcohol | 0177007 | 1170 | 64-17-5 | Hexane | 0221000 | 1208 | 110-54-3 |
| Grasex | 0086001 | 2075 | 75-87-6 | Hexanedinitrile | 0015003 | 2205 | 111-69-3 |
| Halon 10001 | 0283001 | 2644 | 74-88-4 | Hexanoic acid | 0077003 | 2829 | 142-62-1 |
| Halon 1001 | 0268003 | 1062 | 74-83-9 | Hexanon | 0116003 | 1915 | 108-94-1 |
| HCl | 0229002 | | 7647-01-0 | Hexene | 0222000 | 2370 | 592-41-6 |
| HCN | 0230001 | 1051 | 74-90-8 | Hexone | 0285001 | 1245 | 108-10-1 |
| Hendecane | 1123000 | 2330 | | Hexyl acetate | 1155000 | | |
| Heptachlor | 1124000 | | | Hexylene | 0222003 | 2370 | 592-41-6 |
| Heptachlor epoxide | 1125000 | | | Hexylene glycol | 1156000 | | |
| Heptachlorodibenzofurans | 1126000 | | | HF | 0231003 | 1052 | 7664-39-3 |
| Heptachlorodibenzo-p-dioxins | 1127000 | | | HN1 | 0180003 | 2734 | 538-07-8 |
| Heptamethylene | 0114001 | 2241 | 291-64-5 | Hydracrylonitrile | 0190004 | | 109-78-4 |
| Heptane | 0219000 | 1206 | 142-82-5 | Hydrazine hydrate | 0223005 | | 302-02-2 |
| Heptanoic acid | 1128000 | | | Hydrazine hydrogen sulfate | 0224002 | | 10034-93-2 |
| Heptanol | 1129000 | | | Hydrazine monosulfate | 0224003 | | 10034-93-2 |
| Heptyl acetate | 1130000 | | | Hydrazine sulfate | 0224000 | | 10034-93-2 |
| Heptylene | 0220002 | 2278 | 592-76-7 | Hydrazine (<64%) | 0223000 | 2030 | 302-02-2 |
| Hexachloroacetone | 1131000 | 2661 | | Hydrazine (anhydrous or >64%) | 0223001 | 2029 | 302-02-2 |
| Hexachlorobenzene | 1132000 | 2729 | | Hydrazinium sulfate | 0224004 | | 10034-93-2 |
| Hexachlorobutadiene | 1133000 | 2279 | | Hydrazoic acid, sodium salt | 0357002 | 1687 | 26628-22-8 |
| Hexachlorocyclohexanes | 1134000 | | | Hydrazomethane | 0282001 | 1244 | 60-34-4 |
| Hexachlorocyclopentadiene | 1135000 | 2646 | | Hydrochloric acid | 0225000 | 1789 | 7647-01-0 |
| Hexachlorodibenzofurans | 1136000 | | | Hydrochloric ether | 0183001 | 1037 | 75-00-3 |
| Hexachlorodibenzo-p-dioxins | 1137000 | | | Hydrocyanic acid | 0230003 | 1051 | 74-90-8 |
| Hexachloroethane | 1138000 | 9037 | | Hydrocyanic acid, sodium salt | 0358001 | 1689 | 143-33-9 |
| Hexachloronaphthalene | 1139000 | | | | | | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---|-----------------|--------|------------|--------------------------------|-----------------|--------|------------|
| Hydrocyanic acid, solution | 0230002 | 1051 | 74-90-8 | Iron (powder) | 1164000 | | |
| Hydrofluoric acid | 0226000 | 1790 | 7664-39-3 | Iron carbonyl | 0237001 | 1994 | 13463-40-6 |
| Hydrofuran | 0379002 | 2056 | 109-99-9 | Iron pentacarbonyl | 0237000 | 1994 | 13463-40-6 |
| Hydrogen arsenic | 0037003 | 2188 | 7784-42-1 | Isobenzan | 1165000 | | |
| Hydrogen bromide | 0228000 | 1048 | 10035-10-6 | Isobutane | 0238000 | 1969 | 75-28-5 |
| Hydrogen bromide, anhydrous | 0228002 | 1048 | 10035-10-6 | Isobutanol | 1166000 | 1212 | |
| Hydrogen carboxylic acid | 0214003 | 1779 | 64-18-6 | Isobutenyl methyl ketone | 1841001 | 1229 | 141-79-7 |
| Hydrogen chloride (gas) | 0229000 | 1050 | 7647-01-0 | Isobutyl aldehyde | 1167000 | 2045 | |
| Hydrogen chloride (refrigerated liquid) | 0229001 | 2186 | 7647-01-0 | Isobutyl formate | 1169000 | 2393 | |
| Hydrogen chloride (solution) | 0225001 | 1789 | 7647-01-0 | Isobutyl methyl carbinol | 0284001 | 2053 | 108-11-2 |
| Hydrogen cyanide | 0230000 | 1051 | 74-90-8 | Isobutyl methyl ketone | 0285002 | 1245 | 108-10-1 |
| Hydrogen dioxide | 0232002 | 2015 | 7722-84-1 | Isobutylamine | 1168000 | 1214 | |
| Hydrogen fluoride | 0231000 | 1052 | 7664-39-3 | Isobutylene | 0239000 | 1055 | 115-11-7 |
| Hydrogen fluoride, solution | 0226001 | 1790 | 7664-39-3 | Isobutylene | 0291001 | 2288 | 691-37-2 |
| Hydrogen hexafluorosilicate | 0210004 | 1778 | 16961-83-4 | Isobutyric acid | 1170000 | 2529 | |
| Hydrogen iodide, anhydrous | 1157000 | 2197 | | Isobutyronitrile | 0240000 | 2284 | 78-82-0 |
| Hydrogen nitrate | 0302003 | | 7697-37-2 | Isocumene | 0348001 | 2364 | 103-65-1 |
| Hydrogen oxide | 0232003 | 2015 | 7722-84-1 | Isocyanatoethane | 0201002 | 2481 | 109-90-0 |
| Hydrogen peroxide (>60%) | 0232000 | 2015 | 7722-84-1 | Isocyanic acid, ethyl ester | 0201001 | 2481 | 109-90-0 |
| Hydrogen peroxide (35% solution) | 1158000 | 2014 | | Isocyanic acid, methyl ester | 0286001 | 2480 | 624-83-9 |
| Hydrogen phosphide | 0330001 | 2199 | 7803-51-2 | Isodecaldehyde | 1171000 | | |
| Hydrogen selenide | 0233000 | 2202 | 7783-07-5 | Isodrin | 1172000 | | |
| Hydrogen sulfate | 0368001 | 1830 | 7664-93-9 | Isofluorophate | 1173000 | | |
| Hydrogen sulfide | 0234000 | 1053 | 7783-06-4 | Isohexene | 0291002 | 2288 | 691-37-2 |
| Hydrogen (compressed gas) | 0227000 | 1049 | 1333-74-0 | Isooctaldehyde | 1174000 | 1191 | |
| Hydrogen (cryogenic liquid) | 0227001 | 1966 | 1333-74-0 | Isooctane | 1175000 | 1262 | |
| Hydroquinone | 1159000 | 2662 | | Isooctyl alcohol | 1176000 | | |
| Hydrosulfuric acid | 0234001 | 1053 | 7783-06-4 | isooctyl ester | 1710000 | | |
| Hydroxyacetoneitrile | 0213004 | | 107-16-4 | Isopentadiene | 0241001 | 1218 | 78-79-5 |
| Hydroxybenzene | 0323005 | | 108-95-2 | Isopentane | 1177000 | 1265 | |
| Hydroxylamine | 0235000 | | 7803-49-8 | Isophorone | 1178000 | | |
| Hydroxylamine sulfate | 1161000 | 2865 | | Isophorone diamine | 1179000 | 2289 | |
| Hydroxypropionitrile | 0250002 | 3275 | 78-97-7 | Isophorone diisocyanate (IPDI) | 1180000 | 2290 | |
| Hydroxypropyl acrylate | 1162000 | | | Isophthalic acid | 1181000 | | |
| Hydroxypropyl methacrylate | 0236000 | | 27813-02-1 | Isoprene | 0241000 | 1218 | 78-79-5 |
| Hypochlorite | 0360005 | 1791 | 7681-52-9 | Isopropanol | 0242000 | 1219 | 67-63-0 |
| Hyponitrous ether | 0203001 | 1194 | 109-95-5 | Isopropanolamine | 0243000 | | 78-96-6 |
| Indeno(1,2,3-CD)pyrene | 1163000 | | | Isopropene cyanide | 0264002 | 3079 | 126-98-7 |
| Inerton-DW-DMC | 0155003 | 1162 | 75-78-5 | Isopropenyl acetate | 1182000 | 2403 | |
| Inerton-DMCS | 0155004 | 1162 | 75-78-5 | Isopropenyl benzene | 0244000 | 2303 | 98-83-9 |
| Iodine cyanide | 0112002 | | 506-78-5 | Isopropenyl methyl ketone | 0287001 | 1246 | 814-78-8 |
| Iodomethane | 0283002 | 2644 | 74-88-4 | Isopropyl alcohol | 0242003 | 1219 | 67-63-0 |
| | | | | Isopropyl bromide | 0057001 | 2344 | 75-26-3 |
| | | | | Isopropyl chloride | 1183000 | 2356 | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|------------|--------------------------|-----------------|--------|------------|
| Isopropyl chlorocarbonate | 0247002 | 2407 | 108-23-6 | Lead fluoride | 1206000 | 2811 | |
| Isopropyl chloroformate | 0247000 | 2407 | 108-23-6 | Lead fluoroborate | 1207000 | 2291 | |
| Isopropyl cyanide | 0240002 | 2284 | 78-82-0 | Lead iodide | 1208000 | | |
| Isopropyl cyclohexane | 1184000 | | | Lead nitrate | 1209000 | 1469 | |
| Isopropyl ether | 1185000 | | | Lead phosphate | 1210000 | | |
| Isopropyl formate | 0248000 | 2408 | 625-55-8 | Lead stearate | 1211000 | | |
| Isopropyl methyl ketone | 0269001 | 2397 | 563-80-4 | Lead sulfate | 1212000 | 1794 | |
| Isopropyl nitrate | 1188000 | 1222 | | Lead sulfide | 1213000 | | |
| Isopropyl nitrile | 0240003 | 2284 | 78-82-0 | Lead tetraacetate | 1214000 | | |
| Isopropyl percarbonate, | 1189000 | | | Lead thiocyanate | 1215000 | | |
| Isopropyl peroxydicarbonate | 1190000 | 2133 | | Lead thiosulfate | 1216000 | | |
| Isopropyl propionate | 1191000 | 2409 | | Lead tungstate | 1217000 | | |
| Isopropyl-3-methylpyrazolyl dimethylcarbamate | 1187000 | | | Lentin | 0078007 | | 51-83-2 |
| Isopropylamine | 0245000 | 1221 | 75-31-0 | Leptophos | 1218000 | | |
| Isopropylbenzene | 0246000 | 1918 | 98-82-8 | Lewisite | 1219000 | | |
| Isopropylcyanohydrin | 0005003 | 1541 | 75-86-5 | Li | 0253001 | 1415 | 7439-93-2 |
| Isopropylidene acetone | 1841002 | 1229 | 141-79-7 | Lindane | 1220000 | 2761 | |
| Isothiocyanic acid, methyl ester | 0288001 | 2477 | 556-61-6 | Linseed oil | 1221000 | | |
| Isothiourea | 0382001 | | 62-56-6 | Liquefied natural gas | 0251000 | 1972 | 74-82-8 |
| JP-1 | 0249002 | 1223 | 8008-20-6 | Liquefied petroleum gas | 0252000 | 1075 | 68476-85-7 |
| Kepone | 1192000 | | | Liquid chlorine | 0087001 | 1017 | 7782-50-5 |
| Kerosene | 0249000 | 1223 | 8008-20-6 | Liquid oxygen | 0315003 | | 7782-44-7 |
| Kerosine | 0249003 | 1223 | 8008-20-6 | Litharge | 1222000 | | |
| Ketene | 1193000 | | | Lithium | 0253000 | 1415 | 7439-93-2 |
| Ketene dimer | 0149003 | 2521 | 674-82-8 | Lithium aluminum hydride | 1223000 | 1410 | |
| Kwik-Kil | 0361003 | 1692 | 57-24-9 | Lithium bichromate | 1224000 | | |
| Lacquer | 1194000 | 1263 | | Lithium borohydride | 1225000 | 1413 | |
| Lacquer thinner | 1195000 | 1263 | | Lithium chromate | 1226000 | | |
| Lactic acid | 1196000 | | | Lithium hydride | 1227000 | 1414 | |
| Lactonitrile | 0250000 | 3275 | 78-97-7 | Lithium metal | 0253002 | 1415 | 7439-93-2 |
| Lasiocarpine | 1197000 | | | LNG | 0251001 | 1972 | 74-82-8 |
| Laughing gas | 0311003 | | 10024-97-2 | Lorsban | 0105002 | 2783 | 2921-88-2 |
| Lauric acid | 1198000 | | | LOX | 0315004 | | 7782-44-7 |
| Lauroyl peroxide | 1199000 | 2124 | | LPG | 0252002 | 1075 | 68476-85-7 |
| Lauroyl peroxide (<42%) | 1200000 | 2893 | | Luprisol | 0345002 | 1848 | 79-09-4 |
| Lauryl mercaptan | 1201000 | | | Lye | 0359004 | | 1310-73-2 |
| Lead | 1202000 | | | Madone | 0116004 | 1915 | 108-94-1 |
| Lead acetate | 1203000 | 1616 | | Magnesium perchlorate | 1229000 | 1475 | |
| Lead arsenate | 1204000 | 1617 | | Magnesium phosphide | 1230000 | 2011 | |
| Lead chloride | 1205000 | 2291 | | Magnesium (powder) | 1228000 | 1418 | |
| | | | | Malathion | 1231000 | 2783 | |
| | | | | Maleic acid | 1232000 | 2215 | |
| | | | | Maleic anhydride | 1233000 | 2215 | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|----------------------------|-----------------|--------|----------|----------------------------------|-----------------|--------|----------|
| Maleic hydrazide | 1234000 | | | Methacetone | 0146004 | 1156 | 96-22-0 |
| Malonic acid dinitrile | 0254003 | 2647 | 109-77-3 | Methacrolein diacetate | 1258000 | | |
| Malonic dinitrile | 0254004 | 2647 | 109-77-3 | Methacrylaldehyde | 1259000 | 2396 | |
| Malonic mononitrile | 0108001 | | 372-09-8 | Methacrylic acid | 0255000 | 2531 | 79-41-4 |
| Malononitrile | 0254000 | 2647 | 109-77-3 | Methacrylic acid chloride | 0256001 | | 920-46-7 |
| m-Aminopyridine | 0023004 | 2671 | | Methacrylic anhydride | 1260000 | | |
| Maneb | 1235000 | 2968 | | Methacryloyl chloride | 0256000 | | 920-46-7 |
| Manganese (dust) | 1236000 | | | Methacryloyloxyethyl isocyanate | 1261000 | | |
| MAOH | 0284002 | 2053 | 108-11-2 | Methaldehyde | 0212003 | | 50-00-0 |
| MAPP gas | 0262002 | 1060 | | Methallyl chloride | 1262000 | | |
| Marsh gas | 0257004 | | 74-82-8 | Methamidophos | 1263000 | | |
| MB | 0268004 | 1062 | 74-83-9 | Methanal | 0212004 | | 50-00-0 |
| MBK | 0271002 | 1224 | 591-78-6 | Methane carboxylic acid | 1840005 | | 64-19-7 |
| MCB | 0093002 | 1134 | 108-90-7 | Methane sulfonyl chloride | 0258000 | 3246 | 124-63-0 |
| m-Chloronitrobenzene | 0097002 | 1578 | | Methane sulfonyl fluoride | 0259000 | | 558-25-8 |
| m-Dinitrobenzene | 0166004 | 1597 | | Methane sulfuryl chloride | 0258004 | 3246 | 124-63-0 |
| MEA | 1824000 | | | Methane trichloride | 0096003 | 1888 | 67-66-3 |
| MEK | 0280003 | 1193 | 78-93-3 | Methane (compressed gas) | 0257000 | 1971 | 74-82-8 |
| Melamine | 1237000 | | | Methane (cryogenic liquid) | 0257001 | 1972 | 74-82-8 |
| Melinite | 0336002 | | 88-89-1 | Methanearsonic acid, sodium salt | 1264000 | | |
| Mephosfolan | 1238000 | | | Methanecarbonitrile | 0006004 | 1648 | 75-05-8 |
| Mercaptobenzene | 0326002 | 2337 | 108-98-5 | Methanephosphonyl chloride | 0293001 | 9602 | 676-97-1 |
| Mercaptodimethur | 1239000 | 2784 | | Methanesulfonic acid chloride | 0258003 | 3246 | 124-63-0 |
| Mercaptomethane | 0289001 | 1064 | 74-93-1 | Methanethiol | 0289002 | 1064 | 74-93-1 |
| Mercuric acetate | 1240000 | 1629 | | Methanoic acid | 0214004 | 1779 | 64-18-6 |
| Mercuric ammonium chloride | 1241000 | 1630 | | Methanol | 0260000 | 1230 | 67-56-1 |
| Mercuric chloride | 1242000 | 1624 | | Methiocarb | 1265000 | | |
| Mercuric cyanide | 1243000 | 1636 | | Methomyl | 1266000 | | |
| Mercuric iodide | 1244000 | 1638 | | Methoxycarbonylethylene | 0263003 | 1919 | 96-33-3 |
| Mercuric nitrate | 1245000 | 1625 | | Methoxychlor | 1268000 | | |
| Mercuric oxide | 1246000 | 1641 | | Methoxyethyl mercuric acetate | 1269000 | | |
| Mercuric sulfate | 1248000 | 1645 | | Methoxyethylene | 0409001 | 1087 | 107-25-5 |
| Mercuric sulfide | 1249000 | | | Methoxymethyl isocyanate | 1270000 | 2605 | |
| Mercuric thiocyanate | 1250000 | 1646 | | Methyl 2-benzimidazole carbamate | 1278000 | | |
| Mercurous acetate | 1251000 | 1629 | | Methyl 2-chloroacrylate | 0275000 | | 80-63-7 |
| Mercurous chloride | 1252000 | | | Methyl 2-chloropropenoate | 0275002 | | 80-63-7 |
| Mercurous nitrate | 1253000 | 1627 | | Methyl 2-methyl-2-propenoate | 0290003 | 1247 | 80-62-6 |
| Mercury | 1254000 | 2809 | | Methyl acetate | 0261000 | 1231 | 79-20-9 |
| Mercury oxide | 1255000 | 1641 | | Methyl acetic acid | 0345003 | 1848 | 79-09-4 |
| Mesityl oxide | 1841000 | 1229 | 141-79-7 | Methyl acetic ester | 0261002 | 1231 | 79-20-9 |
| Mestranol | 1256000 | | | Methyl acetoacetate | 1271000 | | |
| Mesyl chloride | 0258002 | 3246 | 124-63-0 | Methyl acetone | 1272000 | 1232 | |
| Metaldehyde | 1257000 | 1332 | | Methyl acetylene | 1273000 | | |
| meta-Xylene | 0412005 | 1307 | | | | | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---|-----------------|--------|----------|-----------------------------------|-----------------|--------|------------|
| Methyl acetylene-allene mixture | 0262003 | 1060 | | Methyl isobutyl carbinol | 0284000 | 2053 | 108-11-2 |
| Methyl acetylene-propadiene mixture | 0262000 | 1060 | | Methyl isobutyl ketone | 0285000 | 1245 | 108-10-1 |
| Methyl acrylate | 0263000 | 1919 | 96-33-3 | Methyl isocyanate | 0286000 | 2480 | 624-83-9 |
| Methyl acrylonitrile | 0264000 | 3079 | 126-98-7 | Methyl isopropenyl ketone | 0287000 | 1246 | 814-78-8 |
| Methyl alcohol | 0260002 | 1230 | 67-56-1 | Methyl isopropyl ketone | 0269003 | 2397 | 563-80-4 |
| Methyl amyl acetate | 1274000 | 1233 | | Methyl isothiocyanate | 0288000 | 2477 | 556-61-6 |
| Methyl amyl alcohol | 0284003 | 2053 | 108-11-2 | Methyl ketone | 0004002 | 1090 | 67-64-1 |
| Methyl amyl ketone | 0267000 | 1110 | 110-43-0 | Methyl mercaptan | 0289000 | 1064 | 74-93-1 |
| Methyl azinphos | 1276000 | 2783 | | Methyl mercaptopropionaldehyde | 1306000 | | |
| Methyl azoxymethanol acetate | 1277000 | | | Methyl mercuric dicyanamide | 1307000 | | |
| Methyl benzoate | 1279000 | 2938 | | Methyl mercury | 1308000 | | |
| Methyl bromide | 0268000 | 1062 | 74-83-9 | Methyl methacrylate | 0290000 | 1247 | 80-62-6 |
| Methyl butenol | 1284000 | | | Methyl methane sulfonate | 1309000 | | |
| Methyl butyl ketone | 0271000 | 1224 | 591-78-6 | Methyl methanoate | 0281002 | 1243 | 107-31-3 |
| Methyl butyrate | 0272000 | 1237 | 623-42-7 | Methyl monochloroacetate | 0274002 | 2295 | 96-34-4 |
| Methyl carbinol | 0177008 | 1170 | 64-17-5 | Methyl mustard | 0288002 | 2477 | 556-61-6 |
| Methyl carbylamine | 0286002 | 2480 | 624-83-9 | Methyl n-butyrate | 0272003 | 1237 | 623-42-7 |
| Methyl cellosolve | 0197006 | 1188 | 109-86-4 | Methyl nitrite | 1311000 | 2455 | |
| Methyl chloride | 0273000 | 1063 | 74-87-3 | Methyl orthosilicate | 1314000 | 2606 | |
| Methyl chloroacetate | 0274000 | 2295 | 96-34-4 | Methyl oxide | 0157002 | 1033 | 115-10-6 |
| Methyl chloroformate | 1286000 | 1238 | | Methyl parathion | 1315000 | 2783 | |
| Methyl chloromethyl ether | 1287000 | 1239 | | Methyl PCT | 0161002 | 2267 | 2524-03-0 |
| Methyl cyanide | 0006005 | 1648 | 75-05-8 | Methyl pentyl ketone | 0267004 | 1110 | 110-43-0 |
| Methyl cyclohexanone | 1288000 | 2297 | | Methyl phenkapton | 1320000 | | |
| Methyl cyclopentadiene dimer | 1289000 | | | Methyl phosphonic dichloride | 0293000 | 9602 | 676-97-1 |
| Methyl cyclopentadienyl manganese tricarbonyl | 1290000 | | | Methyl phosphonothioic dichloride | 0294000 | 1760 | 676-98-2 |
| Methyl dichloroacetate | 0278000 | 2299 | 116-54-1 | Methyl phosphonous dichloride | 1321000 | 2845 | |
| Methyl dichloroarsine | 1291000 | 1556 | | Methyl phosphorous dichloride | 0294001 | 1760 | 676-98-2 |
| Methyl dichloroethanoate | 0278002 | 2299 | 116-54-1 | Methyl propenoate | 0263002 | 1919 | 96-33-3 |
| Methyl disulfide | 0156002 | 2381 | 624-92-0 | Methyl propionate | 1324000 | 1248 | |
| Methyl ether | 0157001 | 1033 | 115-10-6 | Methyl propyl ether | 1325000 | 2612 | |
| Methyl ethyl ketone | 0280000 | 1193 | 78-93-3 | Methyl propyl ketone | 1326000 | 1249 | |
| Methyl ethyl pyridine | 1300000 | 2300 | | Methyl rhodanate | 0295001 | | 556-64-9 |
| Methyl fluoroacetate | 1301000 | | | Methyl salicylate | 1328000 | | |
| Methyl fluorosulfate | 1302000 | | | Methyl styrene | 0410001 | 2618 | 25013-15-4 |
| Methyl formal | 1303000 | 1234 | | Methyl sulfate | 0162001 | 1595 | 77-78-1 |
| Methyl formate | 0281000 | 1243 | 107-31-3 | Methyl sulfhydrylate | 0289003 | 1064 | 74-93-1 |
| Methyl heptyl ketone | 1304000 | | | Methyl sulfide | 0163003 | 1164 | 75-18-3 |
| Methyl hydride | 0257005 | | 74-82-8 | Methyl sulfocyanate | 0295002 | | 556-64-9 |
| Methyl hydroxide | 0260003 | 1230 | 67-56-1 | Methyl tert-butyl ether | 0270000 | 2398 | 1634-04-4 |
| Methyl iodide | 0283000 | 2644 | 74-88-4 | Methyl thiocyanate | 0295000 | | 556-64-9 |
| Methyl isobutenyl ketone | 1841003 | 1229 | 141-79-7 | Methyl vinyl ether | 0409003 | 1087 | 107-25-5 |
| | | | | Methyl vinyl ketone | 0297000 | 1251 | 78-94-4 |
| | | | | Methyl zinc | 0164001 | 1370 | 544-97-8 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|----------|-----------------------------|-----------------|--------|-----------|
| Methylacryl chloride | 0256002 | | 920-46-7 | MIBC | 0284005 | 2053 | 108-11-2 |
| Methylaldehyde | 0212005 | | 50-00-0 | MIBK | 1830000 | | |
| Methylamine (anhydrous) | 0265000 | 1061 | 74-89-5 | MIC | 0286003 | 2480 | 624-83-9 |
| Methylamine (solution) | 0266000 | 1235 | 74-89-5 | Michler's ketone | 1336000 | | |
| Methylaziridine | 0352001 | 1921 | 75-55-8 | MIK | 0285004 | 1245 | 108-10-1 |
| Methylbenzene | 0384001 | 1294 | 108-88-3 | Mineral naphtha | 0039004 | 1114 | 71-43-2 |
| Methylbenzol | 0384002 | 1294 | 108-88-3 | Mineral oil | 1337000 | | |
| Methylchloroform | 0389003 | 2831 | 71-55-6 | Mineral spirits | 0299002 | | 8030-30-6 |
| Methylcyclohexane | 0276000 | 2296 | 108-87-2 | Miostat | 0078008 | | 51-83-2 |
| Methylcyclopentane | 0277001 | 2298 | 96-37-7 | MIPK | 0269004 | 2397 | 563-80-4 |
| Methyldichlorosilane | 0279000 | 1242 | 75-54-7 | Mirbane oil | 1842004 | 1662 | 98-95-3 |
| Methylene | 0350001 | 1077 | 115-07-1 | Mirex | 1338000 | | |
| Methylene acetone | 0297002 | 1251 | 78-94-4 | MIT | 0288003 | 2477 | 556-61-6 |
| Methylene bichloride | 0132001 | 1593 | 75-09-2 | MITC | 0288004 | 2477 | 556-61-6 |
| Methylene bis-(phenyl isocyanate) (or MBI) | 1294000 | 2489 | | MMA | 1832000 | | |
| Methylene bromide | 0126001 | 2664 | 74-95-3 | MME | 0290004 | 1247 | 80-62-6 |
| Methylene chloride | 0132002 | 1593 | 75-09-2 | MMH | 0282003 | 1244 | 60-34-4 |
| Methylene cyanide | 0254005 | 2647 | 109-77-3 | MNBK | 0271003 | 1224 | 591-78-6 |
| Methylene cyanohydrin | 0213005 | | 107-16-4 | m-Nitrophenol | 1394000 | 1663 | |
| Methylene dibromide | 0126002 | 2664 | 74-95-3 | m-Nitrotoluene | 0310001 | 1664 | |
| Methylene dichloride | 0132003 | 1593 | 75-09-2 | Molecular oxygen | 0315005 | | 7782-44-7 |
| Methylene diisocyanate | 1296000 | | | Molten phosphorous | 0331003 | | 7723-14-0 |
| Methylene oxide | 0212006 | | 50-00-0 | Molybdenum trioxide | 1340000 | | |
| Methylethylamine | 1297000 | | | Monoallylamine | 0018003 | 2334 | 107-11-9 |
| Methylethylene | 0350002 | 1077 | 115-07-1 | Monobutylamine | 0064003 | 1125 | 109-73-9 |
| Methylhydrazine | 0282000 | 1244 | 60-34-4 | Monochlorethane | 0183002 | 1037 | 75-00-3 |
| Methylmethane | 0173004 | | 74-84-0 | Monochlorobenzene | 0093003 | 1134 | 108-90-7 |
| Methyl-n-butanoate | 0272002 | 1237 | 623-42-7 | Monochloroethylene | 0405003 | 1086 | 75-01-4 |
| Methylol | 0260004 | 1230 | 67-56-1 | Monochloromethane | 0273004 | 1063 | 74-87-3 |
| Methyloxirane | 0353003 | 1280 | 75-56-9 | Monochlorotetrafluoroethane | 1341000 | | |
| Methylpentamethylene | 0277002 | 2298 | 96-37-7 | Monochlorotrifluoromethane | 1342000 | | |
| Methylpentane | 1316000 | 2462 | | Monocrotaline | 1343000 | | |
| Methylpiperidine | 1322000 | 2399 | | Monocrotophos | 1344000 | | |
| Methyltetrahydrofuran | 1329000 | 2536 | | Monoethanolamine | 0174003 | 2491 | 141-43-5 |
| Methyltrichloroacetate | 1330000 | 2533 | | Monoethylamine | 0178004 | 1036 | 75-04-7 |
| Methyltrichloromethane | 0389004 | 2831 | 71-55-6 | Monoethyldichlorosilane | 0187002 | 1183 | 1789-58-8 |
| Methyltrichlorosilane | 0296000 | 1250 | 75-79-6 | Monofluoroacetate | 0208005 | 2642 | 144-49-0 |
| Metolachlor | 1332000 | | | Monofluorobenzene | 0209003 | 2387 | 462-06-6 |
| Metolcarb | 1333000 | | | Monofluoroethene | 0407004 | 1860 | 75-02-5 |
| Mevinphos | 1334000 | 2783 | | Monoisopropanolamine | 0243004 | | 78-96-6 |
| Mexacarbate | 1335000 | 2757 | | Monomethylamine | 0265001 | 1061 | 74-89-5 |
| MFA | 0208004 | 2642 | 144-49-0 | Monomethylhydrazine | 0282004 | 1244 | 60-34-4 |
| MFB | 0209002 | 2387 | 462-06-6 | Morpholine | 0298000 | 2054 | 110-91-8 |
| | | | | Motor fuel | 0217002 | 1203 | 8006-61-9 |
| | | | | Motor spirit | 0217003 | 1203 | 8006-61-9 |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|-----------|---------------------------|-----------------|--------|------------|
| Mous-con | 0413001 | 1714 | | n-Amyl nitrate | 0492000 | 1113 | |
| Mouse-Rid | 0361004 | 1692 | 57-24-9 | n-Amyl nitrite | 0493000 | | |
| MPTD | 0294002 | 1760 | 676-98-2 | Naphtha | 0299000 | | 8030-30-6 |
| MSF | 0259002 | | 558-25-8 | Naphtha: coal tar | 1351000 | 2553 | |
| MTBE | 0270003 | 2398 | 1634-04-4 | Naphtha: stoddard solvent | 1352000 | 1271 | |
| m-Toluidine | 0387002 | 1708 | | Naphtha: VM & P | 1353000 | | |
| Muriatic acid | 1827000 | | | Naphthalene | 1354000 | 1334 | |
| Muriatic ether | 0183003 | 1037 | 75-00-3 | Naphthylthiourea | 1356000 | 1651 | |
| Mustard gas | 1345000 | | | Naphthylurea | 1357000 | 1652 | |
| Muster | 0218001 | | 1071-83-6 | Naramycin | 0117003 | | 66-81-9 |
| MVK | 0297003 | 1251 | 78-94-4 | Natural gas | 1829000 | | |
| MVP (2-Methyl-5-vinyl pyridine) | 1346000 | 3073 | | Naturium | 0356000 | 1428 | 7440-23-5 |
| m-Xylene | 0412004 | 1307 | | n-Butane | 0060001 | 1011 | 106-97-8 |
| m-Xylene | 0412009 | 1307 | | n-Butanol | 0603000 | 1120 | |
| Myrcene | 1347000 | | | n-Butene | 0066003 | 1012 | 25167-67-3 |
| N-(2-chlorophenylthiourea) | 0098001 | | 5344-82-1 | n-Butyl acetate | 0061000 | 1123 | 123-86-4 |
| N-(2-methylphenyl) thiourea | 0292000 | | 614-78-8 | n-Butyl acrylate | 0062002 | 2348 | 141-32-2 |
| N,N'-bis(2-aminoethyl)- 1,2-ethanediamine | 0393001 | 2259 | 112-24-3 | n-Butyl alcohol | 0609000 | 1120 | |
| N,N'-Diacetyl benzidine | 0827000 | | | n-Butyl bromide | 0056002 | 1126 | 109-65-9 |
| N,N'-diacetyl benzidine | 0843000 | | | n-Butyl carbinol | 0032004 | 1105 | 71-41-0 |
| N,N'-Dibutyl hexamethylene diamine | 0856000 | | | n-Butyl chloroformate | 0616000 | 2743 | |
| N,N'-dibutyl hexamethylene diamine | 0881000 | | | n-Butyl isocyanate | 0069000 | 2485 | 111-36-4 |
| N,N-diethyl aniline | 0890000 | 2432 | | n-Butyl mercaptan | 0070003 | 2347 | 109-79-5 |
| N,N'-diethylaniline | 1069000 | | | n-Butyl methacrylate | 0622000 | 2227 | |
| N,N-diethylethanamine | 0392002 | 1296 | 121-44-8 | n-Butylamine | 0064000 | 1125 | 109-73-9 |
| N,N-dimethyl carbamoyl chloride | 0154005 | 2262 | 79-44-7 | n-Butylaniline | 0612000 | 2738 | |
| N,N-dimethyl cyclohexylamine | 1837000 | | | n-Butylchloride | 0094002 | 1127 | 109-69-3 |
| N,N-dimethyl formamide | 0158003 | 2265 | 68-12-2 | n-Butylene | 0066005 | 1012 | 25167-67-3 |
| N,N-dimethylacetamide | 0151003 | | 127-19-5 | n-Butyric acid | 0631000 | 2820 | |
| N,N-dimethylaniline | 0153000 | 2253 | 121-69-7 | n-Decyl acrylate | 0817000 | | |
| N,N-dimethyl-p-phenylenediamine | 0160000 | | 99-98-9 | n-Decyl alcohol | 0818000 | | |
| Nabam | 1348000 | | | n-Decyl benzene | 0819000 | | |
| Nafenopin | 1349000 | | | n-Dipropylamine | 0170002 | 2383 | 142-84-7 |
| Naled | 1350000 | | | Nemex | 0135005 | 2047 | 542-75-6 |
| N-aminoethyl piperazine | 0443000 | 2815 | | Neodecanoic acid | 1358000 | | |
| N-aminoethyl piperazine | 0450000 | | | Neohexane | 0300000 | 1208 | 75-83-2 |
| n-Amyl acetate | 0488000 | 1104 | | Neon | 1359000 | 1065 | |
| n-Amyl alcohol | 0032001 | 1105 | 71-41-0 | Neoprene | 0100005 | 1991 | 126-99-8 |
| n-Amyl chloride | 0490000 | 1111 | | N-ethyl butylamine | 0181002 | 2734 | 13360-63-9 |
| n-Amyl mercaptan | 0491000 | 1112 | | N-ethyl cyclohexylamine | 1039000 | | |
| | | | | N-ethylaniline | 1028000 | 2272 | |
| | | | | N-ethylbutylamine | 0181003 | 2734 | 13360-63-9 |
| | | | | N-formyldimethylamine | 0158004 | 2265 | 68-12-2 |
| | | | | n-Heptane | 0219001 | 1206 | 142-82-5 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|------------|---|-----------------|--------|------------|
| n-Heptene | 0220000 | 2278 | 592-76-7 | Nitrogen gas | 0304002 | | 7727-37-9 |
| n-Hexaldehyde | 1146000 | 1207 | | Nitrogen liquid | 0304003 | | 7727-37-9 |
| n-Hexane | 0221002 | 1208 | 110-54-3 | Nitrogen monoxide | 0303002 | 1660 | 10102-43-9 |
| Nickel | 1360000 | 2881 | | Nitrogen mustard | 1389000 | | |
| Nickel acetate | 1361000 | | | Nitrogen mustard hydrochloride | 1390000 | | |
| Nickel ammonium sulfate | 1362000 | 9138 | | Nitrogen mustard N-oxide | 1391000 | | |
| Nickel bromide | 1363000 | | | Nitrogen mustard N-oxide hydrochloride | 1392000 | | |
| Nickel carbonyl | 0301000 | 1259 | 13463-39-3 | Nitrogen oxide | 0303004 | | |
| Nickel chloride | 1364000 | | | Nitrogen oxychloride | 0309002 | 1069 | 2696-92-6 |
| Nickel cyanide | 1365000 | 1653 | | Nitrogen tetroxide | 0305002 | 1067 | 10102-44-0 |
| Nickel fluoroborate | 1366000 | | | Nitrogen trifluoride | 1393000 | 2451 | |
| Nickel formate | 1367000 | | | Nitrogen (compressed gas) | 0304000 | 1066 | 7727-37-9 |
| Nickel hydroxide | 1368000 | 9140 | | Nitrogen (refrigerated liquid) | 0304001 | 1977 | 7727-37-9 |
| Nickel nitrate | 1369000 | 2725 | | Nitroglycerin | 0306000 | 0143 | 55-63-0 |
| Nickel subsulfide | 1370000 | | | Nitroglycerin (1-10% solution in alcohol) | 0306001 | 0144 | 55-63-0 |
| Nickel sulfate | 1371000 | | | Nitromethane | 0307000 | 1261 | 75-52-5 |
| Nickel tetracarbonyl | 0301001 | 1259 | 13463-39-3 | Nitrophen | 0168007 | | 51-28-5 |
| Nicotine | 1372000 | 1654 | | Nitropropane | 0308000 | 2608 | |
| Nicotine sulfate | 1373000 | 1658 | | Nitro-Sil | 0024004 | 1005 | 7664-41-7 |
| Nitrador | 0167004 | 1598 | 534-52-1 | Nitrostarch (dry or wetted with <20% water) | 1403000 | 0146 | |
| Nitralin | 1374000 | | | Nitrostarch (wetted with >20% water) | 1404000 | 1337 | |
| Nitric acid (fuming) | 0302000 | 2032 | 7697-37-2 | Nitrosyl chloride | 0309000 | 1069 | 2696-92-6 |
| Nitric acid (nonfuming, >40%) | 0302001 | 2031 | 7697-37-2 | Nitrosylsulfuric acid | 1405000 | 2308 | |
| Nitric oxide | 0303000 | 1660 | 10102-43-9 | Nitrotoluene | 0310000 | 1664 | |
| Nitric oxide (mixture with nitrogen tetroxide) | 0303001 | 1975 | 10102-43-9 | Nitrous acid, ethyl ester | 0203002 | 1194 | 109-95-5 |
| Nitrilotriacetic acid | 1375000 | | | Nitrous oxide (compressed gas) | 0311000 | 1070 | 10024-97-2 |
| Nitrilotriacetic acid, disodium salt | 1376000 | | | Nitrous oxide (cryogenic liquid) | 0311001 | 2201 | 10024-97-2 |
| Nitrilotriacetic acid, sodium salt | 1377000 | | | N-methylaniline | 1275000 | 2294 | |
| Nitrilotriacetic acid, trisodium salt | 1378000 | | | N-methylaniline | 1285000 | | |
| Nitrobenzene | 1842000 | 1662 | 98-95-3 | N-methyl-methanamine | 0152001 | 1032 | 124-40-3 |
| Nitrobenzol | 1842002 | 1662 | 98-95-3 | N-nitrosodiethanolamine | 1406000 | | |
| Nitrocarbol | 0307001 | 1261 | 75-52-5 | N-nitrosodiethylamine | 1407000 | | |
| Nitrocellulose (with >25% Water) | 1383000 | 2555 | | N-nitrosodimethylamine | 1408000 | | |
| Nitrocellulose (with plasticizer >18%) | 1384000 | 0343 | | N-nitrosodi-n-butylamine | 1409000 | | |
| Nitrochlorobenzene | 0097005 | 1578 | | N-nitrosodi-n-propylamine | 1410000 | | |
| Nitrochloroform | 0099001 | 1580 | 76-06-2 | N-nitrosodiphenylamine | 1411000 | | |
| Nitrocresols | 1385000 | 2446 | | N-nitrosomethylethylamine | 1412000 | | |
| Nitrocyclohexane | 1386000 | | | N-nitrosomethylvinylamine | 1413000 | | |
| Nitroethane | 1387000 | 2842 | | N-nitrosomorpholine | 1414000 | | |
| Nitrofan | 0167005 | 1598 | 534-52-1 | N-nitroso-N-ethyl urea | 1415000 | | |
| Nitrofen | 1388000 | | | | | | |
| Nitrogen chloride oxide | 0309001 | 1069 | 2696-92-6 | | | | |
| Nitrogen dioxide | 0305000 | 1067 | 10102-44-0 | | | | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-----------------------------|-----------------|--------|------------|------------------------------|-----------------|--------|------------|
| N-nitroso-N-methyl urea | 1416000 | | | Oil of vitrol | 0368002 | 1830 | 7664-93-9 |
| N-nitroso-N-methyl urethane | 1417000 | | | Olamine | 0174004 | 2491 | 141-43-5 |
| N-nitrosomonicotine | 1418000 | | | Oleic acid | 1434000 | | |
| N-nitrosopiperidine | 1419000 | | | Oleic acid, potassium salt | 1435000 | | |
| N-nitrosopyrrolidine | 1420000 | | | Oleic acid, sodium salt | 1436000 | | |
| N-nitrososarcosine | 1421000 | | | Oleum | 0314000 | 1831 | 8014-95-7 |
| NO | 0303003 | 1660 | 10102-43-9 | o-Nitrobenzene | 1842005 | 1662 | 98-95-3 |
| n-Octane | 0312001 | 1262 | 111-65-9 | o-Nitrophenol | 1395000 | 1663 | |
| Nonane | 1422000 | 1920 | | o-Nitrophenol | 1433000 | | |
| Nonanol | 1423000 | | | o-Nitrotoluene | 0310005 | 1664 | |
| Nonene | 1424000 | 2057 | | o-Phenyl phenate, sodium | 1470000 | | |
| Nonylphenol | 1425000 | | | o-Phenyl phenate, sodium | 1476000 | | |
| Norbormide | 1426000 | | | o-Phenyl phenol | 1471000 | | |
| Norethisterone | 0037004 | 2188 | 7784-42-1 | o-Phenyl phenol | 1477000 | | |
| n-Pentane | 0321001 | 1265 | 109-66-0 | Orange oil SS | 1437000 | | |
| N-phenylthiourea | 0328001 | 2767 | 103-85-5 | Ordram (or molinate) | 1438000 | | |
| N-phosphonomethylglycine | 0218002 | | 1071-83-6 | ortho-Xylene | 0412006 | 1307 | |
| N-propanolamine | 1509000 | | | Orvinylocarbinol | 0017004 | 1098 | 107-18-6 |
| N-propanolamine | 1529000 | | | Osmium tetroxide | 1439000 | 2471 | |
| n-Propyl acetate | 0347000 | 1276 | 109-60-4 | o-Toluidine | 0387003 | 1708 | |
| n-Propyl benzene | 0348000 | 2364 | 103-65-1 | o-Tolyl thiourea | 0292002 | | 614-78-8 |
| n-Propyl chloroformate | 0349000 | 2740 | 109-61-5 | Oxacyclopentadiene | 0215002 | 2389 | 110-00-9 |
| n-Propyl mercaptan | 0342003 | 2402 | 107-03-9 | Oxacyclopentane | 0379003 | 2056 | 109-99-9 |
| n-Propyl nitrate | 1543000 | 1865 | | Oxalic acid | 1440000 | | |
| n-Undecylbenzene | 1757000 | | | Oxalonitrile | 0109005 | 1026 | 460-19-5 |
| n-Undecylbenzene | 1762000 | | | Oxalyl cyanide | 0109006 | 1026 | 460-19-5 |
| | | | | Oxammonium | 0235001 | | 7803-49-8 |
| o-Aminopyridine | 0023005 | 2671 | | Oxamyl | 1441000 | | |
| o-Anisidine | 0495000 | 2431 | | Oxane | 0199006 | 1040 | 75-21-8 |
| o-Anisidine hydrochloride | 0496000 | | | Oxetanone | 0149005 | 2521 | 674-82-8 |
| o-Chloronitrobenzene | 0097003 | 1578 | | Oxide of nitrogen | 0305003 | 1067 | 10102-44-0 |
| o-Chloronitrobenzene | 0097006 | 1578 | | Oxidoethane | 0199007 | 1040 | 75-21-8 |
| o-Chlorophenol | 0704000 | 2021 | | Oxirane | 0199008 | 1040 | 75-21-8 |
| Octachloronaphthalene | 1427000 | | | Oxyacyclopropane | 0199009 | 1040 | 75-21-8 |
| Octamethyl diphosphoramide | 1428000 | | | Oxybenzene | 0323006 | | 108-95-2 |
| Octane | 0312000 | 1262 | 111-65-9 | Oxydisulfoton | 1397000 | | |
| Octanoic acid | 1429000 | | | Oxygen difluoride | 0316000 | 2190 | 7783-41-7 |
| Octanol | 1430000 | | | Oxygen (compressed gas) | 0315000 | 1072 | 7782-44-7 |
| Octene | 0313000 | | 111-66-0 | Oxygen (refrigerated liquid) | 0315001 | 1073 | 7782-44-7 |
| Octyl epoxy tallate | 1431000 | | | o-Xylene | 0412007 | 1307 | |
| Octylene | 0313003 | | 111-66-0 | Oxymethylene | 0212007 | | 50-00-0 |
| o-Dinitrobenzene | 0166005 | 1597 | | Ozone | 1442000 | | |
| Oil of bitter almonds | 1842006 | 1662 | 98-95-3 | | | | |
| Oil of turpentine | 0400001 | 1299 | 8006-64-2 | Paint thinner | 1445000 | 1263 | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------|-----------------|--------|------------|-----------------------------------|-----------------|--------|------------|
| Paint, latex | 1443000 | | | Pentyltrichlorosilane | 0033001 | 1728 | 107-72-2 |
| Paint, oil base | 1444000 | 1263 | | Peracetic acid | 1463000 | 2131 | |
| p-Aminopyridine | 0023006 | 2671 | | PERC | 0375003 | 1897 | 127-18-4 |
| p-Aminopyridine | 0023008 | 2671 | | Percarbamide | 0401003 | 1511 | 124-43-6 |
| Panfuran S | 1446000 | | | Perchlor | 0375004 | 1897 | 127-18-4 |
| p-Anisidine | 0497000 | 2431 | | Perchloric acid | 0322000 | 1873 | 7601-90-3 |
| Paraformaldehyde | 1447000 | 2213 | | Perchloroethylene | 0375005 | 1897 | 127-18-4 |
| Paraldehyde | 1448000 | 1264 | | Perchloromethyl mercaptan | 1464000 | 1670 | |
| Paramoth | 0128003 | 1592 | 106-46-7 | Perchloryl fluoride | 1465000 | 3083 | |
| Paraquat | 1449000 | 2781 | | Perclene | 0375006 | 1897 | 127-18-4 |
| Paraquat methosulfate | 1450000 | | | Perfluoroethylene | 0378001 | 1081 | 116-14-3 |
| Parathion | 1451000 | 2783 | | Petrol | 0217004 | 1203 | 8006-61-9 |
| para-Xylene | 0412008 | 1307 | | Petrolatum | 1466000 | | |
| Parazene | 0128004 | 1592 | 106-46-7 | Petroleum | 0299003 | | 8030-30-6 |
| Paris green | 1452000 | 1585 | | Petroleum distillate | 0299004 | | 8030-30-6 |
| p-Benzoquinone | 0041002 | 2587 | 106-51-4 | Petroleum ether | 0299005 | | 8030-30-6 |
| PCE | 0375002 | 1897 | 127-18-4 | Petroleum gas, liquified | 0252003 | 1075 | 68476-85-7 |
| p-Chloro -m-cresol | 0727000 | | | Petroleum naphtha | 1467000 | 1255 | |
| p-Chloroaniline | 0691000 | 2018 | | Petroleum solvent | 0299006 | | 8030-30-6 |
| p-Chloro-m-cresol | 0694000 | | | Phenanthrene | 1468000 | | |
| p-Chloronitrobenzene | 0097004 | 1578 | | Phenic acid | 0323007 | | 108-95-2 |
| p-Chloronitrobenzene | 0097007 | 1578 | | Phenol trinitrate | 0336003 | | 88-89-1 |
| p-Chloro-o-toluidine | 0717000 | | | Phenol (molten) | 0323000 | 2312 | 108-95-2 |
| p-Chlorotoluene | 0104004 | 2238 | 106-43-4 | Phenol (solid) | 0323001 | 1671 | 108-95-2 |
| PCP | 0318002 | 3155 | 87-86-5 | Phenol (solution) | 0323002 | 2821 | 108-95-2 |
| p-Cresidine | 0785000 | | | Phenyl alcohol | 0323008 | | 108-95-2 |
| p-Cymene | 0808000 | 2046 | | Phenyl bromide | 0055001 | 2514 | 108-86-1 |
| PDB | 0128005 | 1592 | 106-46-7 | Phenyl chloride | 0093004 | 1134 | 108-90-7 |
| p-Dichlorobenzene | 0128000 | 1592 | 106-46-7 | Phenyl ethylene | 0362003 | 2055 | 100-42-5 |
| Penta-2,4-dione | 0320000 | 2310 | 123-54-6 | Phenyl fluoride | 0209004 | 2387 | 462-06-6 |
| Pentaborane | 0317000 | 1380 | 19642-22-7 | Phenyl isocyanate | 1474000 | 2487 | |
| Pentaborane monohydride | 0317001 | 1380 | 19642-22-7 | Phenyl mercaptan | 0326000 | 2337 | 108-98-5 |
| Pentacarbonyliron | 0237002 | 1994 | 13463-40-6 | Phenyl phosphorous dichloride | 0327000 | 2798 | 644-97-3 |
| Pentachlorodibenzo-p-dioxins | 1454000 | | | Phenyl phosphorous thiodichloride | 1478000 | 2799 | |
| Pentachloroethane | 1455000 | 1669 | | Phenyl silatrane | 1479000 | | |
| Pentachlorophenate, sodium | 1456000 | 2567 | | Phenyl trichloromethane | 0042004 | 2226 | 98-07-7 |
| Pentachlorophenol | 0318000 | 3155 | 87-86-5 | Phenylacetoneitrile | 0324000 | 2470 | 140-29-4 |
| Pentadecanol | 1457000 | | | Phenylamine | 0035006 | 1547 | 62-53-3 |
| Pentadecylamine | 1458000 | | | Phenylarsinedichloride | 0325002 | 1556 | 696-28-6 |
| Pentadione | 0320004 | 2310 | 123-54-6 | Phenylcarboxamide | 0038003 | | |
| Pentaerythritol | 1459000 | | | Phenylcarbylamine chloride | 1469000 | 1672 | |
| Pentamethylene | 0119001 | 1146 | 142-29-0 | Phenylcyanide | 0040003 | 2224 | 100-47-0 |
| Pentane | 0321000 | 1265 | 109-66-0 | Phenyldichloroarsine | 0325000 | 1556 | 696-28-6 |
| Pentanoic acid | 1460000 | 1760 | | Phenylenediamine | 1472000 | 1673 | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---|-----------------|--------|------------|-------------------------------------|-----------------|--------|-----------|
| Phenylethane | 0179002 | 1175 | 100-41-4 | Picfume | 0099003 | 1580 | 76-06-2 |
| Phenylhydrazine hydrochloride | 1473000 | | | Picoline | 1493000 | 2313 | |
| Phenyllic acid | 0323009 | | 108-95-2 | Picral | 0336004 | | 88-89-1 |
| Phenylmercuric acetate | 1475000 | 1674 | | Picric acid (>10% water) | 0336000 | 1344 | 88-89-1 |
| Phenylmethane | 0384003 | 1294 | 108-88-3 | Picric acid (dry or <30% water) | 0336001 | 0154 | 88-89-1 |
| Phenylphosphine dichloride | 0327003 | 2798 | 644-97-3 | Picride | 0099004 | 1580 | 76-06-2 |
| Phenylthiocarbamide | 0328002 | 2767 | 103-85-5 | Picrotoxin | 1494000 | 1584 | |
| Phenylthiourea | 0328000 | 2767 | 103-85-5 | Pimelic ketone | 0116005 | 1915 | 108-94-1 |
| Phorate | 1480000 | 3018 | | Pine oil | 1495000 | | |
| Phosacetim | 1481000 | | | Pinene | 0337001 | 2368 | 80-56-8 |
| Phosfolan | 1482000 | 2783 | | Piperazine | 1496000 | 2579 | |
| Phosgen | 0329006 | 1076 | 75-44-5 | Piperidine | 0338000 | 2401 | 110-89-4 |
| Phosgene | 0329000 | 1076 | 75-44-5 | Piperylene | 0319002 | | 504-60-9 |
| Phosmet | 1483000 | | | Piprotal | 1497000 | | |
| Phosphamidon | 1484000 | | | Platinum tetrachloride | 1498000 | | |
| Phosphine | 0330000 | 2199 | 7803-51-2 | p-Nitrobenzene | 0166006 | 1597 | |
| Phosphoric acid | 1485000 | 1805 | | p-Nitrobenzene | 1842003 | 1662 | 98-95-3 |
| Phosphoric sulfide | 0333002 | 1340 | 1314-80-3 | p-Nitrophenol | 1396000 | 1663 | |
| Phosphorochlorodithioic acid, 0,0-dimethyl ester | 0161003 | 2267 | 2524-03-0 | p-Nitrotoluene | 0310006 | 1664 | |
| Phosphorus (black) | 1487000 | | | Polybrominated biphenyls | 1499000 | 3152 | |
| Phosphorus bromide | 0334001 | 1808 | 7789-60-8 | Polybutene | 1500000 | | |
| Phosphorus chloride | 0335002 | 1809 | 7719-12-2 | Polychlorinated biphenyls | 1501000 | 2315 | |
| Phosphorus chloride oxide | 0332001 | 1810 | 10025-87-3 | Polyethylene polyamines | 1502000 | | |
| Phosphorus hydride | 0330002 | 2199 | 7803-51-2 | Polyphosphoric acid | 1503000 | | |
| Phosphorus oxide trichloride | 0332002 | 1810 | 10025-87-3 | Polypropylene | 1504000 | | |
| Phosphorus oxychloride | 0332000 | 1810 | 10025-87-3 | Polypropylene glycol | 1505000 | | |
| Phosphorus oxytrichloride | 0332003 | 1810 | 10025-87-3 | Polypropylene glycol methyl ether | 1506000 | | |
| Phosphorus pentachloride | 1488000 | 1806 | | Ponceau 3R | 1507000 | | |
| Phosphorus pentafluoride | 1489000 | 2198 | | Potassium | 0339000 | 2257 | 7440-09-7 |
| Phosphorus pentasulfide | 0333000 | 1340 | 1314-80-3 | Potassium arsenite | 1508000 | 1678 | |
| Phosphorus pentoxide | 1490000 | 1807 | | Potassium binoxalate | 1510000 | | |
| Phosphorus persulfide | 0333003 | 1340 | 1314-80-3 | Potassium bromate | 1511000 | 1484 | |
| Phosphorus tribromide | 0334000 | 1808 | 7789-60-8 | Potassium chlorate | 1512000 | 1485 | |
| Phosphorus trichloride | 0335000 | 1809 | 7719-12-2 | Potassium chromate | 1513000 | | |
| Phosphorus trihydride | 0330003 | 2199 | 7803-51-2 | Potassium cyanide | 1514000 | 1680 | |
| Phosphorus trioxide | 1491000 | 2578 | | Potassium dichloro-s-triazinetriene | 1515000 | 2465 | |
| Phosphorus (amorphous, red) | 1486000 | 1338 | | Potassium dichromate | 1516000 | 1479 | |
| Phosphorus (dry or under water) | 0331000 | 1381 | 7723-14-0 | Potassium hydroxide | 1517000 | 1813 | |
| Phosphorus (white molten) | 0331001 | 2447 | 7723-14-0 | Potassium hydroxide solution | 1518000 | 1814 | |
| Phosphoryl chloride | 0332004 | 1810 | 10025-87-3 | Potassium iodide | 1519000 | | |
| Phosvin | 0413002 | 1714 | | Potassium oxalate | 1520000 | | |
| Phthalic anhydride | 1492000 | 2214 | | Potassium permanganate | 1521000 | 1490 | |
| Pic-chlor | 0099002 | 1580 | 76-06-2 | Potassium peroxide | 1522000 | 1491 | |
| | | | | Potassium peroxysulfate | 0340003 | 1492 | 7727-21-1 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|------------------------------|-----------------|--------|-----------|---------------------------------|-----------------|--------|------------|
| Potassium persulfate | 0340000 | 1492 | 7727-21-1 | Propylene glycol | 1538000 | | |
| Potassium silver cyanide | 1523000 | | | Propylene glycol ethyl ether | 1539000 | | |
| Progesterone | 1524000 | | | Propylene glycol methyl ether | 1540000 | | |
| Promecarb | 1525000 | | | Propylene glycol monometha | | | |
| Prometryne | 1526000 | | | crylate | 0236002 | | 27813-02-1 |
| Propadiene | 1527000 | 2200 | | Propylene oxide | 0353000 | 1280 | 75-56-9 |
| Propane | 0341000 | 1978 | 74-98-6 | Propylene tetramer | 1541000 | 2850 | |
| Propane sultone | 1528000 | | | Propylene trimer | 1542000 | 2057 | |
| Propanethiol | 0342000 | 2402 | 107-03-9 | Propyleneimine | 0352000 | 1921 | 75-55-8 |
| Propanoic acid | 0345004 | 1848 | 79-09-4 | Propyl nitrile | 0346004 | 2404 | 107-12-0 |
| Propargite | 1530000 | | | Propynyl alcohol | 0343004 | 1986 | 107-19-7 |
| Propargyl alcohol | 0343000 | 1986 | 107-19-7 | Prothoate | 1544000 | 2783 | |
| Propargyl bromide | 0058002 | 2345 | 106-96-7 | Prozoin | 0345005 | 1848 | 79-09-4 |
| Propellant 12 | 1531000 | 1028 | | Prussic acid | 0230004 | 1051 | 74-90-8 |
| Propenamide | 0011002 | 2074 | 79-06-1 | Prussite | 0109007 | 1026 | 460-19-5 |
| Propene | 0350003 | 1077 | 115-07-1 | p-tert-Butyl phenol | 0628000 | 2229 | |
| Propene acid | 0012005 | 2218 | 79-10-7 | p-Toluene sulfonic acid | 1689000 | 2585 | |
| Propene oxide | 0353004 | 1280 | 75-56-9 | p-Toluidine | 0387004 | 1708 | |
| Propene-3-yl trichlorosilane | 0022002 | 1724 | 107-37-9 | p-Tolyl chloride | 0104005 | 2238 | 106-43-4 |
| Propenenitrile | 0013003 | 1093 | 107-13-1 | p-Tricresyl phosphate | 1717000 | | |
| Propenoic acid | 0012006 | 2218 | 79-10-7 | PTU | 0328004 | 2767 | 103-85-5 |
| Propenoic acid, ethyl ester | 0176004 | 1917 | 140-88-5 | p-Xylene | 0412010 | 1307 | |
| Propenoic acid, methyl ester | 0263004 | 1919 | 96-33-3 | Pyrene | 1545000 | | |
| Propenol | 0017005 | 1098 | 107-18-6 | Pyrethrins | 1546000 | 9184 | |
| Propenoyl chloride | 0014003 | 9188 | 814-68-6 | Pyridine | 0354000 | 1282 | 110-86-1 |
| Propenyl alcohol | 0017007 | 1098 | 107-18-6 | Pyriminil | 1547000 | | |
| Propenyl chloride | 0020005 | 1100 | 107-05-1 | Pyrogallic acid | 1548000 | | |
| Propiolactone | 0344000 | 1993 | 57-57-8 | Pyrophosphoric acid, tetraethyl | | | |
| Propionaldehyde | 1532000 | 1275 | | ester | 0377004 | | 107-49-3 |
| Propionic acid | 0345000 | 1848 | 79-09-4 | Pyrosulfuryl chloride | 1549000 | 1817 | |
| Propionic anhydride | 1533000 | 2496 | | Pyrrolidone | 1550000 | | |
| Propionic nitrile | 0346003 | 2404 | 107-12-0 | Quinoline | 1552000 | 2656 | |
| Propionitrile | 0346000 | 2404 | 107-12-0 | Quinone | 0041004 | 2587 | 106-51-4 |
| Propoxur | 1534000 | | | R12 | 1555001 | 1028 | |
| Propyl bromide | 0057002 | 2344 | 75-26-3 | R20 | 0096004 | 1888 | 67-66-3 |
| Propyl chlorocarbonate | 0349001 | 2740 | 109-61-5 | R22 | 1556001 | 1018 | |
| Propyl chloroformate | 0349002 | 2740 | 109-61-5 | R40 | 0273005 | 1063 | 74-87-3 |
| Propyl cyanide | 0074003 | 2411 | 109-74-0 | R50 | 0257006 | | 74-82-8 |
| Propyl mercaptan | 0342002 | 2402 | 107-03-9 | Range oil | 0249004 | 1223 | 8008-20-6 |
| Propylacetone | 0271004 | 1224 | 591-78-6 | Ratal | 0413003 | 1714 | |
| Propylamine | 1535000 | 1277 | | Refrigerant 12 | 1555000 | 1028 | |
| Propylene | 0350000 | 1077 | 115-07-1 | Refrigerant 22 | 1556000 | 1018 | |
| Propylene butylene polymer | 1536000 | | | | | | |
| Propylene dichloride | 0351000 | 1279 | 78-87-5 | | | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-----------------------------|-----------------|--------|------------|--|-----------------|--------|------------|
| Refrigerant R717 | 0024005 | 1005 | 7664-41-7 | Silvex | 1583000 | 2765 | |
| Resorcinol | 1557000 | 2876 | | Simazine | 1584000 | | |
| Rodeo | 0218003 | | 1071-83-6 | Sinox | 0167006 | 1598 | 534-52-1 |
| Ro-Dex | 0361005 | 1692 | 57-24-9 | Skellysolve A | 0321002 | 1265 | 109-66-0 |
| Roundup | 0218004 | | 1071-83-6 | Soda lye | 0359005 | | 1310-73-2 |
| Rubbing alcohol | 0242007 | 1219 | 67-63-0 | Sodium | 0356001 | 1428 | 7440-23-5 |
| Rubidium | 1558000 | 1423 | | Sodium 2-mercaptobenzothiazol solution | 1607000 | | |
| Saccharin | 1559000 | | | Sodium alkyl sulfates | 1586000 | | |
| Safrole | 1560000 | | | Sodium alkylbenzene sulfonates | 1585000 | | |
| Salicylaldehyde | 1561000 | | | Sodium amide | 1587000 | | |
| Salicylic acid | 1562000 | | | Sodium arsenate | 1588000 | 1685 | |
| Salt peter | 1563000 | 1942 | | Sodium arsenite | 1589000 | 2027 | |
| Sand acid | 0210005 | 1778 | 16961-83-4 | Sodium azide | 0357000 | 1687 | 26628-22-8 |
| Sarin | 1564000 | | | Sodium bifluoride | 1590000 | 2439 | |
| sec-Butanol | 0604000 | 1120 | | Sodium bisulfite | 1591000 | 2693 | |
| sec-Butyl alcohol | 0610000 | 1120 | | Sodium borate | 1592000 | | |
| sec-Butylamine | 0611000 | | | Sodium borohydride | 1593000 | 1426 | |
| sec-Propyl alcohol | 0242006 | 1219 | 67-63-0 | Sodium borohydride (15% or less) | 1594000 | | |
| Selenic acid | 1565000 | 1905 | | Sodium cacodylate | 1595000 | 1688 | |
| Selenium (powder) | 1566000 | 2658 | | Sodium chlorate | 1596000 | 1495 | |
| Selenium dihydride | 0233002 | 2202 | 7783-07-5 | Sodium chlorate solution | 1597000 | 2428 | |
| Selenium dioxide | 1567000 | 2811 | | Sodium chromate | 1598000 | | |
| Selenium hexafluoride | 1568000 | 2194 | | Sodium cyanide | 0358000 | 1689 | 143-33-9 |
| Selenium oxychloride | 1569000 | 2879 | | Sodium dichloro-s-triazinetriene | 1599000 | 2465 | |
| Selenium trioxide | 1570000 | | | Sodium dichromate | 1600000 | 1479 | |
| Semicarbazide hydrochloride | 1571000 | | | Sodium ferrocyanide | 1601000 | | |
| Sewer gas | 0234002 | 1053 | 7783-06-4 | Sodium fluoride | 1602000 | 1690 | |
| Sextone | 0116006 | 1915 | 108-94-1 | Sodium fluoroacetate | 1603000 | 2629 | |
| Silane | 1572000 | 2203 | | Sodium fluorosilicate | 1604000 | 2674 | |
| Silica gel | 1574000 | | | Sodium hydrate | 0359006 | | 1310-73-2 |
| Silica, crystalline | 1573000 | | | Sodium hydride | 1605000 | 1427 | |
| Silicochloroform | 0391001 | 1295 | 10025-78-2 | Sodium hydrosulfide solution | 1606000 | 2922 | |
| Silicofluoric acid | 0210006 | 1778 | 16961-83-4 | Sodium hydroxide (dry) | 0359000 | 1823 | 1310-73-2 |
| Silicon chloride | 0355000 | 1818 | 10026-04-7 | Sodium hydroxide (solution) | 0359001 | 1824 | 1310-73-2 |
| Silicon tetrachloride | 0355001 | 1818 | 10026-04-7 | Sodium hypochlorite | 0360000 | 1791 | 7681-52-9 |
| Silicon (powder) | 1575000 | 1346 | | Sodium hypochlorite solution | 0360006 | 1791 | 7681-52-9 |
| Silver | 1576000 | | | Sodium methylate | 1608000 | 1431 | |
| Silver acetate | 1577000 | | | Sodium nitrate | 1609000 | 1498 | |
| Silver carbonate | 1578000 | | | Sodium nitrite | 1610000 | 1500 | |
| Silver iodate | 1579000 | | | Sodium oxalate | 1611000 | | |
| Silver nitrate | 1580000 | 1493 | | Sodium perchlorate | 1612000 | 1502 | |
| Silver oxide | 1581000 | | | Sodium persulfate | 1613000 | | |
| Silver sulfate | 1582000 | | | Sodium phosphate | 1614000 | 9147 | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|---------------------------|-----------------|--------|------------|---------------------------------|-----------------|--------|------------|
| Sodium phosphate tribasic | 1615000 | | | Sulfur hydride | 0234004 | 1053 | 7783-06-4 |
| Sodium phosphide | 1616000 | 1432 | | Sulfur monochloride | 0369000 | 1828 | 10025-67-9 |
| Sodium saccharin | 1617000 | | | Sulfur oxide | 0367005 | 1079 | 7446-09-5 |
| Sodium selenate | 1618000 | 2630 | | Sulfur oxychloride | 0372003 | 1834 | 7791-25-5 |
| Sodium selenite | 1619000 | 2630 | | Sulfur pentafluoride | 1637000 | | |
| Sodium silicate | 1620000 | | | Sulfur phosphide | 0333004 | 1340 | 1314-80-3 |
| Sodium sulfate | 1621000 | | | Sulfur subchloride | 0369004 | 1828 | 10025-67-9 |
| Sodium sulfide | 1622000 | 1385 | | Sulfur tetrafluoride | 0370000 | 2418 | 7783-60-0 |
| Sodium sulfite | 1623000 | | | Sulfur trioxide | 0371000 | 1829 | 7446-11-9 |
| Sodium tellurite | 1624000 | | | Sulfur (molten) | 0365001 | 2448 | 7704-34-9 |
| Sodium thiocyanate | 1625000 | | | Sulfureted hydrogen | 0234003 | 1053 | 7783-06-4 |
| Solvent 111 | 0389005 | 2831 | 71-55-6 | Sulfuric acid | 0368000 | 1830 | 7664-93-9 |
| Sorbitol | 1626000 | | | Sulfuric acid, dimethyl ester | 0162002 | 1595 | 77-78-1 |
| Spirits of turpentine | 0400002 | 1299 | 8006-64-2 | Sulfuric acid, fuming | 0314003 | 1831 | 8014-95-7 |
| Stannous fluoride | 1627000 | | | Sulfuric anhydride | 0371003 | 1829 | 7446-11-9 |
| Stearic acid | 1628000 | | | Sulfuric chlorohydrin | 0103002 | 1454 | 7790-94-5 |
| Sterigmatocystin | 1629000 | | | Sulfuric oxide | 0371004 | 1829 | 7446-11-9 |
| s-Tetrachloroethane | 0374004 | 1702 | 79-34-5 | Sulfuric oxychloride | 0372002 | 1834 | 7791-25-5 |
| Stibine | 1630000 | 2676 | | Sulfurous acid | 1636000 | 1833 | |
| Stoddard solvent | 0299007 | | 8030-30-6 | Sulfurous acid anhydride | 0367002 | 1079 | 7446-09-5 |
| Strontium chromate | 1631000 | | | Sulfurous acid, diammonium salt | 0030002 | 9090 | 10196-04-0 |
| Strychnine | 0361000 | 1692 | 57-24-9 | Sulfurous anhydride | 0367003 | 1079 | 7446-09-5 |
| Strychnine sulfate | 1632000 | 1692 | | Sulfurous oxide | 0367004 | 1079 | 7446-09-5 |
| Styrene | 0362000 | 2055 | 100-42-5 | Sulfurous oxychloride | 0381003 | 1836 | 7719-09-7 |
| Styrene monomer | 0362004 | 2055 | 100-42-5 | Sulfuryl chloride | 0372000 | 1834 | 7791-25-5 |
| Styrene oxide | 0363000 | | 96-09-3 | Supracide | 1638000 | | |
| Styrene-7,8-oxide | 0363003 | | 96-09-3 | Sweet spirit of nitre | 0203003 | 1194 | 109-95-5 |
| Styrol | 0362005 | 2055 | 100-42-5 | sym-Allene | 0451000 | | |
| Styrolene | 0362006 | 2055 | 100-42-5 | | | | |
| Suberane | 0114002 | 2241 | 291-64-5 | Tabun | 1639000 | | |
| Sucrose | 1633000 | | | Tannic acid | 1640000 | | |
| Sulfallate | 1634000 | | | Tar | 1641000 | 1999 | |
| Sulfan | 0371001 | 1829 | 7446-11-9 | t-Butanol | 0063001 | 1120 | 75-65-0 |
| Sulfinyl chloride | 0381001 | 1836 | 7719-09-7 | t-Butyl alcohol | 0063000 | 1120 | 75-65-0 |
| Sulfolane | 0364000 | | 126-33-0 | t-Butyl methyl ether | 0270001 | 2398 | 1634-04-4 |
| Sulfolane W | 0364002 | | 126-33-0 | t-Butylamine | 0065000 | 2734 | 75-64-9 |
| Sulfonyl chloride | 0372001 | 1834 | 7791-25-5 | TCE | 0390003 | 1710 | 79-01-6 |
| Sulfotep | 1635000 | 1704 | | TCM | 0096005 | 1888 | 67-66-3 |
| Sulfur | 0365000 | 1350 | 7704-34-9 | TDI | 0386001 | 2078 | 584-84-9 |
| Sulfur anhydride | 0371002 | 1829 | 7446-11-9 | TEA | 0392003 | 1296 | 121-44-8 |
| Sulfur chloride | 0369003 | 1828 | 10025-67-9 | TEL | 0376001 | 1649 | 78-00-2 |
| Sulfur chloride oxide | 0381002 | 1836 | 7719-09-7 | Tellurium fluoride | 0373001 | 2195 | 7783-80-4 |
| Sulfur dichloride | 0366000 | 1828 | 10545-99-0 | Tellurium hexafluoride | 0373000 | 2195 | 7783-80-4 |
| Sulfur dioxide | 0367000 | 1079 | 7446-09-5 | Tellurium (powder) | 1642000 | | |

APPENDIX D • CHEMICAL IDENTIFICATION

| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|-----------------------------------|-----------------|--------|------------|------------------------------|-----------------|--------|-----------|
| Telmicid | 0171003 | | 514-73-8 | Tetrahydronaphthalene | 1661000 | | |
| Telmid | 0171004 | | 514-73-8 | Tetrahydrothiophene-1 | 0364003 | | 126-33-0 |
| Telone 2 | 0135006 | 2047 | 542-75-6 | Tetramethyl lead | 1663000 | | |
| Telone C | 0135007 | 2047 | 542-75-6 | Tetramethyl silane | 1664000 | 2749 | |
| Temik | 0016003 | 2757 | 116-06-3 | Tetramethylene cyanide | 0015004 | 2205 | 111-69-3 |
| TEN | 0392004 | 1296 | 121-44-8 | Tetramethylene oxide | 0379004 | 2056 | 109-99-9 |
| TEP | 0377005 | | 107-49-3 | Tetramethylene sulfone | 0364004 | | 126-33-0 |
| TEPP | 0377006 | | 107-49-3 | Tetran | 0380001 | 1510 | 509-14-8 |
| Terbufos | 1643000 | | | Tetranitromethane | 0380000 | 1510 | 509-14-8 |
| Terephthalic acid | 1644000 | | | Tetrasol | 0083006 | 1846 | 56-23-5 |
| Terphenyl | 1645000 | | | Thallium | 1665000 | | |
| Terpinoline | 1646000 | 2541 | | Thallium acetate | 1666000 | | |
| tert-Butyl ether | 0620000 | 1149 | | Thallium carbonate | 1667000 | | |
| tert-Butyl hydroperoxide | 0068000 | | 75-91-2 | Thallium nitrate | 1668000 | 2727 | |
| tert-Butyl peroxybenzoate | 0625000 | 2097 | | Thallium sulfate | 1669000 | 1707 | |
| tert-Butylamine | 0065002 | 2734 | 75-64-9 | Thallos carbonate | 1670000 | | |
| tert-Octyl mercaptan | 1432000 | 3023 | | Thallos chloride | 1671000 | | |
| Testosterone and its esters | 1647000 | | | Thallos malonate | 1672000 | | |
| TETA | 0393002 | 2259 | 112-24-3 | Thallos sulfate | 1673000 | | |
| Tetrabutyl titanate | 1648000 | | | THF | 0379005 | 2056 | 109-99-9 |
| Tetracarbonyl nickel | 0301002 | 1259 | 13463-39-3 | Thioacetamide | 1675000 | | |
| Tetrachloroethane | 0374000 | 1702 | 79-34-5 | Thioacetic acid | 1676000 | 2436 | |
| Tetrachloroethylene | 0375000 | 1897 | 127-18-4 | Thiobencarb | 1677000 | | |
| Tetrachloromethane | 0083005 | 1846 | 56-23-5 | Thiobutyl alcohol | 0070004 | 2347 | 109-79-5 |
| Tetrachlorosilane | 0355002 | 1818 | 10026-04-7 | Thiocarbamide | 0382002 | | 62-56-6 |
| Tetrachlorotitanium | 0383001 | 1838 | 7550-45-0 | Thiocarbazide | 1678000 | | |
| Tetrachlorvinphos | 1651000 | | | Thiocyanic acid, ethyl ester | 0205003 | | 542-90-5 |
| Tetradecanol | 1652000 | | | Thiocyanomethane | 0295003 | | 556-64-9 |
| Tetradecyl benzene | 1654000 | | | Thioethanol | 0202004 | 2363 | 75-08-1 |
| Tetraethyl dithiopyrophosphate | 1655000 | 1704 | | Thioethyl alcohol | 0202005 | 2363 | 75-08-1 |
| Tetraethyl lead | 0376000 | 1649 | 78-00-2 | Thiofanox | 1680000 | | |
| Tetraethyl pyrophosphate (liquid) | 0377001 | 3018 | 107-49-3 | Thiolane-1,1-dioxide | 0364005 | | 126-33-0 |
| Tetraethyl pyrophosphate (solid) | 0377000 | 2783 | 107-49-3 | Thiomethyl alcohol | 0289004 | 1064 | 74-93-1 |
| Tetraethyl tin | 1658000 | | | Thionazin | 1681000 | 3018 | |
| Tetraethylene glycol | 1656000 | | | Thionyl chloride | 0381000 | 1836 | 7719-09-7 |
| Tetraethylene pentamine | 1657000 | 2320 | | Thiophan sulfone | 0364006 | | 126-33-0 |
| Tetraethylplumbane | 0376002 | 1649 | 78-00-2 | Thiophenol | 0326003 | 2337 | 108-98-5 |
| Tetrafluoroethylene | 0378000 | 1081 | 116-14-3 | Thiophosgene | 1682000 | 2474 | |
| Tetrafluorohydrazine | 1659000 | 1955 | | Thiophosphoric anhydride | 0333005 | 1340 | 1314-80-3 |
| Tetrafluoromethane | 1660000 | 1982 | | Thiosemicarbazide | 1683000 | | |
| Tetrafluorosulfurane | 0370001 | 2419 | 7783-60-0 | Thiourea | 0382000 | | 62-56-6 |
| Tetrahydro-1,4-oxazine | 0298004 | 2054 | 110-91-8 | Thiourea (2-chlorophenyl) | 0098002 | | 5344-82-1 |
| Tetrahydrofuran | 0379000 | 2056 | 109-99-9 | Thiram | 1684000 | 2771 | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|------------|---------------------------------|-----------------|--------|------------|
| Thorium dioxide | 1685000 | | | Trichloroamylsilane | 0033002 | 1728 | 107-72-2 |
| Thorium nitrate | 1686000 | 2976 | | Trichlorobenzene | 1700000 | 2321 | |
| TIBAL | 0395002 | | 100-99-2 | Trichloroborane | 0049002 | 1741 | 10294-34-5 |
| Titanium chloride | 0383002 | 1838 | 7550-45-0 | Trichloroboron | 0049003 | 1741 | 10294-34-5 |
| Titanium dioxide | 1687000 | | | Trichlorobutene | 1702000 | 2322 | |
| Titanium tetrachloride | 0383000 | 1838 | 7550-45-0 | Trichlorobutylsilane | 0071002 | 1747 | 7521-80-4 |
| Titanium(IV) chloride | 0383003 | 1838 | 7550-45-0 | Trichloroethanal | 0086003 | 2075 | 75-87-6 |
| TL 214 | 0186004 | 1892 | 598-14-1 | Trichloroethene | 0390006 | 1710 | 79-01-6 |
| TL 69 | 0325003 | 1556 | 696-28-6 | Trichloroethenyilsilane | 0411002 | 1305 | 75-94-5 |
| TMA | 0397001 | 1083 | 75-50-3 | Trichloroethyl silicon | 0206002 | 1196 | 115-21-9 |
| TNM | 0380002 | 1510 | 509-14-8 | Trichloroethylene | 0390000 | 1710 | 79-01-6 |
| TNT (dry or wetted with <30% water) | 1688000 | 0209 | | Trichloroethylsilane | 0206001 | 1196 | 115-21-9 |
| Toluene | 0384000 | 1294 | 108-88-3 | Trichlorofluoromethane | 1704000 | | |
| Toluene 2,4-diisocyanate | 0386003 | 2078 | 584-84-9 | Trichloroform | 0096006 | 1888 | 67-66-3 |
| Toluene diamine | 0385003 | 1709 | 95-80-7 | Trichloromethane | 0096007 | 1888 | 67-66-3 |
| Toluene diisocyanate | 0386000 | 2078 | 584-84-9 | Trichloromethyl benzene | 0042005 | 2226 | 98-07-7 |
| Toluene-2,4-diamine | 0385004 | 1709 | 95-80-7 | Trichloromethylsilane | 0296001 | 1250 | 75-79-6 |
| Toluidine | 0387000 | 1708 | | Trichloromethylsilicon | 0296002 | 1250 | 75-79-6 |
| Toluol | 0384005 | 1294 | 108-88-3 | Trichloromonosilane | 0391002 | 1295 | 10025-78-2 |
| Tolu-sol | 0384004 | 1294 | 108-88-3 | Trichloronate | 1705000 | | |
| Toxaphene | 1690000 | 2761 | | Trichloronitromethane | 0099005 | 1580 | 76-06-2 |
| trans-2-Butenal | 0106002 | 1143 | 4170-30-3 | Trichlorophenyl silane | 1711000 | | |
| trans-Butene | 0066004 | 1012 | 25167-67-3 | Trichlorophosphine | 0335003 | 1809 | 7719-12-2 |
| Tri | 0389006 | 2831 | 71-55-6 | Trichlorosilane | 0391000 | 1295 | 10025-78-2 |
| TRI | 0390004 | 1710 | 79-01-6 | Trichloro-s-triazinetrione | 1713000 | 2468 | |
| Triamiphos | 1692000 | | | Trichlorotoluene | 0042006 | 2226 | 98-07-7 |
| Triaziquone | 1693000 | | | Trichlorotrifluoroethane | 1714000 | | |
| Triazofos | 1694000 | | | Trichlorovinylsilicon | 0411003 | 1305 | 75-94-5 |
| Tribromoborane | 0048002 | 2692 | 10294-33-4 | Tri-clor | 0099006 | 1580 | 76-06-2 |
| Tribromophosphine | 0334002 | 1808 | 7789-60-8 | Tridecane | 1718000 | | |
| Tributyl phosphate | 1696000 | | | Tridecanol | 1719000 | | |
| Tributylamine | 1695000 | 2542 | | Tridecyl benzene | 1721000 | | |
| Tricarbonyl methyl cyclopentadienyl manganese | 1697000 | | | Trien | 0393003 | 2259 | 112-24-3 |
| Trichlor | 0390005 | 1710 | 79-01-6 | Triethane | 0389007 | 2831 | 71-55-6 |
| Trichlorfon | 1698000 | 2783 | | Triethanol amine | 1722000 | | |
| Trichloro-(chloromethyl) silane | 1703000 | | | Triethoxysilane | 1723000 | | |
| Trichloroacetaldehyde | 0086002 | 2075 | 75-87-6 | Triethyl aluminum | 1724000 | | |
| Trichloroacetic acid | 1699000 | 1839 | | Triethyl benzene | 1725000 | | |
| Trichloroacetic acid chloride | 0388001 | 2442 | 76-02-8 | Triethyl phosphate | 1728000 | | |
| Trichloroacetyl chloride | 0388000 | 2442 | 76-02-8 | Triethyl phosphite | 1729000 | 2323 | |
| Trichloroallylsilane | 0022003 | 1724 | 107-37-9 | Triethylamine | 0392000 | 1296 | 121-44-8 |
| | | | | Triethylene glycol | 1726000 | | |
| | | | | Triethylene thiophosphoramidate | 1727000 | | |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--|-----------------|--------|-----------|--|-----------------|-------------|-----------------|
| Triethylenetetramine | 0393000 | 2259 | 112-24-3 | Tris- (2-chloroethyl)amine | 0399000 | | 555-77-1 |
| Trifluoroacetic acid | 1730000 | 2699 | | Tris- (aziridiny)phosphine oxide | 1752000 | 2501 | |
| Trifluoroboron | 0050002 | 1008 | 7637-07-2 | Trithene | 0394005 | 1082 | 79-38-9 |
| Trifluorochlorine | 0089003 | 1749 | 7790-91-2 | Trithion | 1754000 | | |
| Trifluorochloroethylene | 0394000 | 1082 | 79-38-9 | Trixylenyl phosphate | 1755000 | | |
| Trifluorovinyl chloride | 0394004 | 1082 | 79-38-9 | Trona | 0048003 | 2692 | 10294-33-4 |
| Trifluralin | 1732000 | | | Trypan blue | 1756000 | | |
| Triisobutyl aluminum | 0395000 | | 100-99-2 | TS160 | 0399002 | | 555-77-1 |
| Triisobutylalane | 0395003 | | 100-99-2 | Turpentine | 0400000 | 1299 | 8006-64-2 |
| Triisobutylene | 1733000 | 2324 | | Turpentine oil | 0400003 | 1299 | 8006-64-2 |
| Triisopropanol amine | 1734000 | | | Turpentine spirits | 0400004 | 1299 | 8006-64-2 |
| Trimethoxysilane | 0396000 | 9269 | 2487-90-3 | UDMH | 0159003 | 1163 | 57-14-7 |
| Trimethyl benzene | 1738000 | 2325 | | Undecane | 1758000 | 2330 | |
| Trimethyl hexamethylene diamine | 1739000 | 2327 | | Undecanoic acid | 1759000 | | |
| Trimethyl hexamethylene diisocyanate | 1740000 | 2328 | | Undecanol | 1760000 | | |
| Trimethyl phosphite | 1741000 | 2329 | | Unifume | 0192006 | 1605 | 106-93-4 |
| Trimethyl tin chloride | 1742000 | | | unsym-Dimethylhydrazine | 0159004 | 1163 | 57-14-7 |
| Trimethylacetic acid | 1735000 | | | Uracil mustard | 1763000 | | |
| Trimethylacetyl chloride | 1736000 | 2438 | | Uranium hexafluoride | 1765000 | 2978 | |
| Trimethylamine(anhydrous) | 0397000 | 1083 | 75-50-3 | Uranium metal (pyrophoric) | 1764000 | 2979 | |
| Trimethylchlorosilane | 0398000 | 1298 | 75-77-4 | Uranium peroxide | 1766000 | | |
| Trimethylene | 0121001 | 1027 | 95-75-7 | Uranyl acetate | 1767000 | 9180 | |
| Trimethylmethane | 0238003 | 1969 | 75-28-5 | Uranyl nitrate | 1768000 | 2981 | |
| Trinitrobenzene (dry or wetted with <30% water) | 1743000 | 0213 | | Uranyl sulfate | 1769000 | | |
| Trinitrobenzene (wetted with >30% water) | 1744000 | 1354 | | Urea | 1770000 | | |
| Trinitrobenzoic acid (dry or wetted with <30% water) | 1746000 | 1355 | | Urea hydrogen peroxide | 0401004 | 1511 | 124-43-6 |
| Trinitrobenzoic acid (wetted with >30% water) | 1745000 | 0215 | | Urea peroxide | 0401000 | 1511 | 124-43-6 |
| Trinitroglycerin | 0306004 | 0143 | 55-63-0 | Urea, ammonium nitrate soln (w/aqua ammonia) | 1771000 | | |
| Trinitrophenol | 0336005 | | 88-89-1 | Urethane | 1772000 | | |
| Trinitrotoluene (dry or wetted with <30% water) | 1747000 | 0209 | | USAFST-40 | 0264004 | 3079 | 126-98-7 |
| Trinitrotoluene (wetted with >30% water) | 1748000 | 1356 | | VAC | 0403004 | 1301 | 108-05-4 |
| Tri-p-cresyl phosphate | 1716000 | 2574 | | Valeraldehyde | 1773000 | 2058 | |
| Triphenyl tin chloride | 1749000 | | | Valeric acid | 1774000 | 1760 | |
| Tripropylene glycol | 1750000 | | | VAM | 0403005 | 1301 | 108-05-4 |
| Tripropylene glycol methyl ether | 1751000 | | | Vanadium | 1775000 | 3285 | |
| Tris-(2,3-dibromopropyl) phosphate | 1753000 | | | Vanadium oxychloride | 0402001 | 2243 | 7727-18-6 |
| | | | | Vanadium oxytrichloride | 0402000 | 2243 | 7727-18-6 |
| | | | | Vanadium pentoxide | 1776000 | 2862 | |
| | | | | Vanadium trichloride oxide | 0402002 | 2243 | 7727-18-6 |
| | | | | Vanadyl sulfate | 1777000 | 2931 | |
| | | | | Vanadyl trichloride | 0402003 | 2243 | 7727-18-6 |

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| Chemical Name | Chemical ID No. | UN No. | CAS No. | Chemical Name | Chemical ID No. | UN No. | CAS No. |
|--------------------------|-----------------|--------|------------|------------------------------|-----------------|--------|----------|
| Vapotone | 0377007 | | 107-49-3 | Zectran | 1785000 | | |
| VC | 0405004 | 1086 | 75-01-4 | Zinc | 1786000 | 1436 | |
| VCM | 0405005 | 1086 | 75-01-4 | Zinc acetate | 1787000 | 9153 | |
| VDC | 0408003 | 1303 | 75-35-4 | Zinc ammonium chloride | 1788000 | 9154 | |
| Vidden D | 0135008 | 2047 | 542-75-6 | Zinc arsenate | 1789000 | 1712 | |
| Vinyl A monomer | 0403006 | 1301 | 108-05-4 | Zinc bichromate | 1790000 | | |
| Vinyl acetate | 0403000 | 1301 | 108-05-4 | Zinc borate | 1791000 | | |
| Vinyl acetylene | 1778000 | | | Zinc bromide | 1792000 | 9156 | |
| Vinyl allyl ether | 1779000 | | | Zinc carbonate | 1793000 | 9157 | |
| Vinyl amide | 0011003 | 2074 | 79-06-1 | Zinc chloride | 1794000 | 2331 | |
| Vinyl benzene | 0362007 | 2055 | 100-42-5 | Zinc chromate | 1795000 | | |
| Vinyl bromide | 0404000 | 1085 | 593-60-2 | Zinc dialkyldithiophosphate | 1797000 | | |
| Vinyl carbinol | 0017008 | 1098 | 107-18-6 | Zinc dithionite | 1798000 | 1931 | |
| Vinyl chloride | 0405000 | 1086 | 75-01-4 | Zinc fluoride | 1799000 | 9158 | |
| Vinyl chloride monomer | 0405006 | 1086 | 75-01-4 | Zinc fluoroborate | 1800000 | | |
| Vinyl cyanide | 0013005 | 1093 | 107-13-1 | Zinc fluorosilicate | 1801000 | 2855 | |
| Vinyl ethyl ether | 0406000 | 1302 | 109-92-2 | Zinc formate | 1802000 | 9159 | |
| Vinyl fluoride | 0407000 | 1860 | 75-02-5 | Zinc methyl | 0164002 | 1370 | 544-97-8 |
| Vinyl formic acid | 0012008 | 2218 | 79-10-7 | Zinc nitrate | 1803000 | 1514 | |
| Vinyl isobutyl ether | 1780000 | 1304 | | Zinc oxide | 1804000 | | |
| Vinyl methyl ether | 0409000 | 1087 | 107-25-5 | Zinc phenolsulfonate | 1805000 | 9160 | |
| Vinyl methyl ketone | 0297004 | 1251 | 78-94-4 | Zinc phosphide | 0413000 | 1714 | |
| Vinyl neodecanoate | 1781000 | | | Zinc potassium chromate | 1806000 | | |
| Vinyl toluene | 0410000 | 2618 | 25013-15-4 | Zinc sulfate | 1807000 | 9161 | |
| Vinyl trichlorosilane | 0411000 | 1305 | 75-94-5 | Zinccyanide | 1796000 | 1713 | |
| Vinylethylene | 0059007 | 1010 | 106-99-0 | Zineb | 1808000 | | |
| Vinylidene chloride | 0408000 | 1303 | 75-35-4 | Ziram | 1809000 | | |
| Vinylsilicon trichloride | 0411004 | 1305 | 75-94-5 | Zirconium | 1810000 | 2008 | |
| Vorlex | 0288005 | 2477 | 556-61-6 | Zirconium acetate | 1811000 | | |
| Vulnoc AB | 0025001 | 9080 | 1863-63-4 | Zirconium nitrate | 1812000 | 2728 | |
| Weedone | 0122003 | 2765 | 94-75-7 | Zirconium oxychloride | 1813000 | | |
| White caustic | 0359007 | | 1310-73-2 | Zirconium potassium fluoride | 1814000 | 9162 | |
| White phosphorus | 0331004 | | 7723-14-0 | Zirconium sulfate | 1815000 | 9163 | |
| Wood alcohol | 0260005 | 1230 | 67-56-1 | Zirconium tetrachloride | 1816000 | 2503 | |
| Wood ether | 0157003 | 1033 | 115-10-6 | ZP | 0413004 | 1714 | |
| Woodtreat | 0318003 | 3155 | 87-86-5 | Zylylene dichloride | 1817000 | | |
| Xenon | 1782000 | 2036 | | | | | |
| Xylene | 0412000 | 1307 | | | | | |
| Xylenol | 1783000 | 2261 | | | | | |
| Xylol | 0412011 | 1307 | | | | | |
| Yellow phosphorus | 0331005 | | 7723-14-0 | | | | |

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