Massachusetts Fire Incident Reporting System Version 5

Quick Reference Guide

Massachusetts Revision March 2012

FEMA

U.S. Fire Administration
National Fire Data Center

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INTRODUCTION

This *MFIRS 5.0 Quick Reference Guide* (QRG) is an abridgment of the *MFIRS 5.0 Complete Reference Guide* (CRG). Both guides are components of the Massachusetts Fire Incident Reporting System (MFIRS) Version 5.0. Both provide instructions for reporting data to MFIRS Version 5.0 and serve as a reference for the coding of the data. An electronic version of this guide may be found at www.mass.gov/dfs/osfm/firedata/mfirs/tools/htm.

MFIRS 5.0 is a modular, all-incident reporting system based on the National Fire Incident Reporting System (NFIRS) designed by the U.S. Fire Administration, a part of the Department of Homeland Security, with input from the fire service and other users of the data.

M.G.L. Chapter 148 Section 2 – Mandatory Reporting

"…All fires and explosions by which a loss is sustained shall, within 48 hours, excluding Sundays and holidays, be reported in writing to the marshal. Reports required by this section shall be on forms furnished by the department, and shall contain a statement of all facts, relating to the cause and origin of the fire or explosion that can be ascertained, the extent of damage thereof, the insurance upon the property damaged, and other such information as may be required. The marshal shall keep or cause to be kept a record of all fires or explosions occurring in the Commonwealth, with the results of such investigations, and such records shall be open to public inspection."

- A 'loss' is defined as a dollar loss or human casualty.

Many fire departments have taken to using MFIRS for recording all of their incidents. We encourage fire departments that wish to do so to submit incident reports for all of their runs. This standardized data collection system enables us to gain not just an accurate picture of the fire problem in Massachusetts but also a more complete understanding of the amount of work that the Massachusetts fire service does on a daily basis.

Incident Types That Are Required to be Reported

The following Incident Types are required to be reported to the Office of the State Fire Marshal:

100 – 199 – All fires.
240 – 243 – Explosions (no fires).

Incident Types That Are Strongly Recommended to be Reported

If you are not reporting all of your runs to the Office of the State Fire Marshal, we strongly encourage that in addition to the incidents mandated above, you also report the following Incident Types:

561 – Unauthorized burning. Includes fires that are under control and not endangering property.
631 – Authorized controlled burning. Includes fires that are agricultural in nature and managed by the property owner.
632 – Prescribed fires. Includes fires ignited by management actions to meet specific objectives and have a written, approved prescribed fire plan prior to ignition.
424 – Carbon monoxide (CO) incident. Excludes incidents with nothing found (736 or 746).
736 – Carbon monoxide (CO) detector activation due to malfunction.
746 – Carbon monoxide (CO) detector activation (no CO found).
451 – Biological hazard, confirmed or suspected.
671 – Hazardous material release investigation with no hazardous condition found.
672 – Biological hazard investigation with no hazardous condition found.

How MFIRS Works

After responding to an incident, fire department personnel complete one or more of the MFIRS "modules." The information in these modules describes the type of incident; 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 and fire service casualties and an estimate of property loss.

MFIRS 5.0 is an information-based system with data entry, data storage, and data retrieval, whether for a single incident or in aggregate, accessed via a computer that interacts with the database. Because not all fire departments use computers for their record keeping, 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, are generally 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.

MFIRS Version 5.0 consists of 11 modules. The Basic Module (MFIRS–1) is to be completed for every incident, with additional modules used as appropriate to describe the incident. One report is completed for each incident. Modules MFIRS–6 through MFIRS–10 are optional modules that are used only when that option(s) is selected by your state reporting authority.

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.”

Conventions Used in Completing Modules

The entire full-size set of paper forms 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 generally contain related information. Within each section or block, this guide defines every field and provides instruction for entering the data or codes. Where codes are required in a field, a complete code list is provided. Codes and the English text equivalent must be entered. 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 bullet. 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.

- Coded fields 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 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 MFIRS 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. It is recommended that each department review their header record to ensure completeness.

Differences Between the QRG and the CRG

Each field in the *Complete Reference Guide* consists of four elements: definition of the field, purpose for the field information, instructions for data entry, and a pictorial example of how the field looks after it is completed. The "purpose" and pictorial "example" have been omitted in this *Quick Reference Guide.* Additionally, three appendices and an index that may provide additional useful guidance to a user have also been eliminated. However, references to these CRG appendices are included in the QRG where appropriate. All other text in this QRG is verbatim with that in the CRG.

Electronic Reporting

If you are using Massachusetts certified third party vendor software, please send your reports in electronically via e-mail as an attachment to MFIRS.Report@state.ma.us. These transaction files should be sent in monthly during the first two weeks of the following month. The subject line of your e-mail should contain your department name and the date range of your data. The data will be processed and a notification with error report (if any) will be sent back to the fire department within 48 business hours.

Paper Forms

If you are sending in paper forms, they must be the Massachusetts MFIRS v5 forms (examples of which can be found in the Appendix) and have the code accompanied by its English text definition. If any errors or omissions are found or changes need to be made, the report will be sent back to the fire department for those changes or corrections. The corrected reports then need to be sent back to the Fire Data and Public Education Unit.

Required Modules

Basic Module ..... (MFIRS-1)
Fire Module ..... (MFIRS-2)
Building Fire Section ..... (MFIRS-3)
Civilian Fire Casualty Module ..... (MFIRS-4)
Fire Service Casualty Module ..... (MFIRS-5)
Arson/Juvenile Firesetter Module ..... (MFIRS-11)

Optional Modules

EMS Casualty Module ..... (MFIRS-6)
Hazardous Materials Module ..... (MFIRS-7)
Wildland Module ..... (MFIRS-8)
Apparatus/Resources Module ..... (MFIRS-9)
Personnel Module ..... (MFIRS-10)
Supplemental Module ..... (MFIRS-1S)

Assistance

Please contact the Fire Data and Public Education Unit of the Office of the State Fire Marshal at (978) 567-3380 for more information or to answer any questions that you may have regarding MFIRS.

Additional information, past annual reports, and annual fire fact sheets may be found at www.mass.gov/dfs/osfm/firedata/mfirs.htm

BASIC MODULE (MFIRS–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. A copy of the paper form of this module is presented in Appendix A.

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 (MFIRS–2). Additionally, the Structure Fire Module (MFIRS–3) is required if the fire reported in the Fire Module occurs in a structure.

A separate Civilian Fire Casualty Module (MFIRS–4) is required for each civilian who is injured as a direct result of a fire incident. A separate Fire Service Casualty Module (MFIRS–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 (FDID, 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.

Entry. Enter the state-assigned FDID.

State ★

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

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	NY	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	U	U.S. Minor Outlying Islands
DD	Department of Defense	MP	Northern Mariana Islands	VI	Virgin Islands
FM	Federated States of Micronesia	PW	Palau	OO	Other
		NA	Native American		

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.

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.

Station

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

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.

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.

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.

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.

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.

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.

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.

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*:*

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 (MFIRS–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.

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.).

LOCATION TYPE CODES

1 Street address.
2 Intersection.
3 In front of.
4 Rear of.
5 Adjacent to.
6 Directions.
7 US 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.

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.

Number/Milepost

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

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.

Street Prefix

Definition. The directional descriptor appearing before a street or highway name.

Entry. Enter the street prefix abbreviation. Leave blank if not applicable

STREET PREFIX CODES

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

Street or Highway Name

Definition. The street or highway name where the incident occurred.

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 Street Type code list, enter the street type as part of the Street or Highway name.

Street Type

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

Entry. Enter the appropriate Street Type code (established by the U.S. Postal Service).

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.)

STREET TYPE CODES

ARC	Arcade	FRDS	Fords	NCK	Neck
AVE	Avenue	FRST	Forest	ORCH	Orchard
BCH	Beach	FRG	Forge	OVAL	Oval
BND	Bend	FRGS	Forges	PARK	Park
BLF	Bluff	FRK	Fork	PKY	Parkway
BLFS	Bluffs	FRKS	Forks	PKYS	Parkways
BTM	Bottom	FT	Fort	PASS	Pass
BLVD	Boulevard	FWY	Freeway	PSGE	Passage
BR	Branch	GDN	Garden	PATH	Path
BRG	Bridge	GDNS	Gardens	PIKE	Pike
BRK	Brook	GTWY	Gateway	PNE	Pine
BRKS	Brooks	GLN	Glen	PNES	Pines
BG	Burg	GLNS	Glens	PL	Place
BGS	Burgs	GRN	Green	PLZ	Plaza
BYP	Bypass	GRNS	Greens	PT	Point
CP	Camp	GRV	Grove	PTS	Points
CYN	Canyon	GRVS	Groves	PRT	Port
CPE	Cape	HBR	Harbor	PRTS	Ports
CSWY	Causeway	HBRS	Harbors	PR	Prairie
CTR	Center	HVN	Haven	RADL	Radial
CTRS	Centers	HTS	Heights	RAMP	Ramp
CIR	Circle	HWY	Highway	RNCH	Ranch
CIRS	Circles	HL	Hill	RPD	Rapid
CLF	Cliff	HLS	Hills	RPDS	Rapids
CLFS	Cliffs	HOLW	Hollow	RST	Rest
CLB	Club	INLT	Inlet	RDG	Ridge
CMN	Common	IS	Island	RDGS	Ridges
CMNS	Commons	ISS	Islands	RIV	River
COR	Corner	ISLE	Isle	RD	Road
CORS	Corners	JCT	Junction	RDS	Roads
CT	Court	JCTS	Junctions	RT	Route
CTS	Courts	KY	Key	ROW	Row
CV	Cove	KYS	Keys	RUE	Rue
CVS	Coves	KNL	Knoll	RUN	Run
CRK	Creek	KNLS	Knolls	SHL	Shoal
CRES	Crescent	LK	Lake	SHLS	Shoals
CRST	Crest	LKS	Lakes	SHR	Shore
XING	Crossing	LNDG	Landing	SHRS	Shores
XRD	Crossroad	LN	Lane	SKWY	Skyway
XRDS	Crossroads	LGT	Light	SPG	Spring
CURV	Curve	LGTS	Lights	SPGS	Springs
DL	Dale	LF	Loaf	SPUR	Spur
DM	Dam	LCK	Lock	SPRS	Spurs
DV	Divide	LCKS	Locks	SQ	Square
DR	Drive	LDG	Lodge	SQS	Squares
DRS	Drives	LOOP	Loop	STA	Station
EST	Estate	MALL	Mall	STRA	Stravenue
ESTS	Estates	MNR	Manor	STRM	Stream
EXPY	Expressway	MNRS	Manors	ST	Street
EXT	Extension	MDW	Meadow	STS	Streets
EXTS	Extensions	MDWS	Meadows	SMT	Summit
FALL	Fall	MEWS	Mews	TER	Terrace
FLS	Falls	ML	Mill	TRWY	Throughway
FRY	Ferry	MLS	Mills	TRCE	Trace
FLD	Field	MSN	Mission	TRAK	Track
FLDS	Fields	MTWY	Motorway	TRFY	Trafficway
FLT	Flat	MT	Mount	TRL	Trail
TRLR	Trailer	VLYS	Valleys	VIS	Vista

TUNL	Tunnel	VIA	Viaduct	WALK	Walk
TPKE	Turnpike	VW	View	WALK	Walks
UPAS	Underpass	VWS	Views	WALL	Wall
UN	Union	VLG	Village	WAY	Way
UNS	Unions	VLGS	Villages	WL	Well
VLY	Valley	VL	Ville	WLS	Wells

Street Suffix

Definition. The directional descriptor appearing after a street or highway name.

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

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.

City

Definition. The city where the incident occurred. If the incident occurred in an unincorporated area, use the city found in the mailing address for the incident location.

Entry. Enter the city where the incident occurred, or the city used in the mailing address for the incident location. The maximum number of characters available in the City field is 20.

State

Definition. The state where the incident occurred.

Entry. Enter the alphabetic abbreviation for the state (see page 2) where the incident occurred.

ZIP Code

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

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.

Cross Street or Directions

Use directions *only* if the location cannot otherwise be identified.

Definition. The nearest cross street to the incident address or directions from a recognized landmark or the second street name of an intersection.

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.

SECTION C

C

Incident Type ★

- *Incident Type* was known as *Type of Situation Found* in MFIRS 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.
- 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 Ensuing 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.

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, and 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 drop-off 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 drop-off 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, 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. Incudes 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.

Critical Incident

Critical Incident

Definition. Check the box to indicate if this was an incident with sufficient impact to produce significant emotional reactions in people now or later.

Entry. The valid codes for this field are yes or no. Blank means no.

- This is a unique to Massachusetts element.

Critical Incident Team Mobilized?

Definition. Check the box to indicate if a team from the state or region is called to respond to aid the firefighter.

Entry. The valid codes for this field are yes or no. Blank means no.

- This is a unique to Massachusetts element.

Circumstances

Definition. Enter the one digit code explaining why this incident was classified as a critical incident.

Entry. You may list up to three circumstances.

- This is a unique to Massachusetts element.

Critical Incident Circumstances Codes

1 Serious injury or line of duty death.
2 Suicide of a co-worker.
3 Death of serious injury to a child.
4 Prolonged failed rescue.
5 Multi-casualty incident/disaster.
6 Victim is known to the responder.
7 Any incident where the personal safety.
8 Incidents with excessive media interest.
9 Any incident with unusually strong emotional components.

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 received 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.

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 mutual fill-in service only, check or mark the appropriate aid-given box; complete Their FDID, Their State, and Their Incident Number fields; enter the two-digit Actions Taken code (codes 90, 91, or 92 only) in Section F; and complete 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 the Their FDID and Their Incident Number fields blank; the Their 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.

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 the when the alarm was received, when the units arrived on scene, when the incident was controlled, and when the last unit left the scene.

E

Dates and Times

All dates and time 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.
- For all automated systems, MFIRS 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	05	May	09	September
02	February	06	June	10	October
03	March	07	July	11	November
04	April	08	August	12	December

12:00 midnight = 0000
12:01 a.m. = 0001
1:06 a.m. = 0106
2:20 p.m. = 1420

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.

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, Arrival time should be the same as Last Unit Cleared time.

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.

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.

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.

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.

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.

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.

Alarms

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

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

District

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

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.

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 National Fire Data Center 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 National Fire Data Center.

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 National Fire Data Center can define Special Studies fields.

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 (MFIRS–1S).

SECTION F

F

Actions Taken ★

- Actions Taken was known as Type of Action Taken in MFIRS 4.1.

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

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.

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.
90 Fill-in, standby, other.

Actions Taken, Other

00 Actions taken, 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.

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 Module or Personnel Modules is 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.

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.

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.

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 MFIRS–2 through MFIRS–11 modules completed for the incident.

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

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.

Entry. Identify and separately record the number 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.

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).

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.

DETECTOR CODES

1 Detector alerted occupants.

2 Detector did not alert occupants.

U Unknown.

H3

Hazardous Materials Release

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

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.

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

I

Mixed Use Property

- *Mixed Use Property* is similar to *Complex* in MFIRS 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.

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 standalone service station would not be a Mixed Use although it has a driveway and parking area.

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 MFIRS 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.

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.
- An alphabetized synonym list for the following Property Use codes is presented in the *Complete Reference Guide,* 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 racetrack.
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, town houses, row houses, and 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 tollbooths, 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.

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.

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.

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.

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	
MR	Mr.
MRS	Mrs.
MS	Ms.
DR	Doctor
REV	Reverend

Name Suffix	
JR	Junior
SR	Senior
I	The First
II	The Second
III	The Third
IV	The Fourth
V	The Fifth
MD	Medical Doctor
DDS	Doctor of Dental Science

Address

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

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.)

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.

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.

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.

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

State

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

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

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 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.

- If more than one person or entity is involved, mark the box at the bottom of K1 and fill out and attach Supplemental Forms (MFIRS–1S) as necessary.

K2 *Owner*

The type of information required for the fields in this block are the same as those in Block K1 above.

Business Name

Definition. The full name of the company or agency that owns the property where the incident occurred.

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.

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.

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.

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.

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.

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.

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.

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 2.

ZIP Code

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

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

Insurance Company

Definition. The name of the insurance company carrying the owner's policy.

Entry. Enter the name of the insurance company. This is a text field that can be up to 25 characters long.

- This is a unique to Massachusetts element.

Total Insurance

Definition. The total amount of the insurance policy.

Entry. Enter the whole dollar figure of the total amount of the insurance policy. Maximum of 10 characters.

- This is a unique to Massachusetts element.

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 (MFIRS–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.

SECTION M

Section M requires the identification and signatures of the person completing the incident report and his/ her supervisor.

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.

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.

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.

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.

FIRE MODULE (MFIRS–2)

The Fire Module (MFIRS–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. A copy of the paper form of this module is presented in Appendix A.

This module should be completed for Incident Types 100, 111–112, 120–143, 160–173, 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), and for outside rubbish fires (Incident Types 150-155) 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.

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.

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.

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.

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.

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.

B3

Number of Acres Burned (outside fires)

Definition. The estimated number of acres burned in the fire incident.

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.

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.

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.

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

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

Personal and home products, other

200 Personal and home products, other. Raw Materials

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 Newspaper, 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, arts 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.

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).

- An alphabetized synonym list for the following Area of Fire Origin codes is presented in the Complete Reference Guide, 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, 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, mailroom, 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 automobile, 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
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 area, 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 MFIRS 4.1.

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

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

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 MFIRS 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.

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.

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 by-product 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 MFIRS 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."

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.
- An alphabetized synonym list for the following Type of Material First Ignited codes is presented in the *Complete Reference Guide,* 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 IC 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.

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.

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 MFIRS 4.1.

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

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.

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.

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.

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 MFIRS 4.1.

F1 *Equipment Involved in Ignition*

Equipment Type

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

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 Incident Type not 13X and Heat Source = 6X or Factors Contributing to Ignition = 36-37 or 52-58, then Equipment Involved in Ignition is required and cannot be NNN - None.
- If a vehicle was involved in ignition, use Section H.

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, stove 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.
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.

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.

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.

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

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.

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.

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.

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.

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/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 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).

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.

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 "fourdoor" (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.

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 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.

MOBILE PROPERTY TYPE CODES

Passenger Road Vehicles

11 Automobile, passenger car, ambulance, limousine, racecar, 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 watercraft. Includes one-or two-person recreational watercraft.
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 forklifts, 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	FT	Fetrel
AG	Agco	CP	Caterpillar	FW	FWD
AL	Allis Chalmers	CR	Chrysler	GE	Geo
AM	Aston Martin	CU	Cub Cadet	GH	Gehl
AN	Ariens	CV	Classic Vehicle	GI	Giehl
AR	Alfa Romeo	DA	Daihatsu	GL	Gleaner
AT	ATK	DE	Demco	GM	GMC (General Motors)
AU	Audi	DF	Duetz-Fahr	GV	GVM
AV	Antique Vehicle	DI	Dixon	HB	Haybuster
AY	Avery	DO	Dodge	HD	Harley Davidson
BE	Beta	DR	Diamond Reo	HE	Hesston
BL	Buell	DS	Duetz-Allis	HG	Hough
BM	BMW	DT	Duetz	HI	Hino
BO	Bobcat	DU	Ducati	HO	Honda
BR	Briggs	EA	Eagle	HS	Husky
BS	Belarus	ER	Eager	HU	Husqverna
BU	Buick	EU	Euclid	HV	Harvester
CA	Case	FA	Farmall	HX	Hydrax
CB	Case - David Brown	FE	Ferrari	HY	Hyundai
CC	Crane Carrier (CCC)	FG	Frigstad	IF	Infiniti
CD	Cadillac	FK	Farm King	IH	International Harvester
CE	Century	FM	Farmtrac	IL	International Farmall
CH	Chevrolet	FO	Ford	IN	International
CI	Case IH	FR	Freightliner	IS	Isuzu

IT	Italjet	MM	Moto Morini	SG	Scagg
IV	Iveco	MN	MacDon	SI	Simplicity
JA	Jaguar	MO	Montesa	SN	Snapper
JD	John Deere	MR	Merkur	SR	Steiger
JE	Jeep	MS	Maserati	ST	Sterling
KA	Kawasaki	MT	Mitsubishi	SU	Subaru
KE	Kenworth	MU	Murray	SZ	Suzuki
KI	Kia	MV	Massey Harris-Ferguson	TB	Troy-Bilt
KM	Komatsu	MW	Montgomery Ward	TJ	Trojan
KN	Knight	MY	Massey Ferguson	TL	Trelan
KO	Kioti	MZ	Mazda	TO	Toyota
KR	Krause	NA	Navistar	TR	Triumph
KT	KTM	NE	New Idea	TT	Toro
KU	Kubota	NH	New Holland	UD	UD
KZ	Kinze	NI	Nissan	UR	Ursus
LC	Land Chief	OL	Oldsmobile	UT	Utilmaster
LE	Lexus	OS	Oshkosh	VE	Vespa
LI	Lincoln	OV	Oliver	VG	Volvo GMC
LN	Long	OW	Owatona	VL	Volvo
LO	Lotus	PI	Pierce	VO	Volkswagen
LR	Land Rover	PL	Plymouth	VR	Vermeer
LT	Landtrac	PN	Pontiac	VS	Versatile
MA	Maico	PR	Porsche	WD	Woods
MB	Mercedes Benz	PT	Peterbilt	WG	White GMC
MC	Mercury	PU	Peugeot	WH	White
MD	MTD	RD	Red Devil	WK	Walker
ME	Melroe	RG	Rogue (Ottowa)	WL	Walter
MF	MHF	RN	Range Rover	WS	Western Star
MG	Moto Guzzi	RR	Rolls Royce	WW	Westward
MH	Marmon	SA	Saturn	YA	Yamaha
MI	Mahindra	SB	Saab	YM	Yardman
MJ	McKee	SC	Scania	YU	Yugo
MK	Mack	SD	Simon Duplex	ZT	Zetor
ML	Maely	SE	Sears Craftsman	OO	Other Make

Vehicle Stolen

Definition. This element is used to determine if the vehicle involved in the fire was stolen when it caught fire.

Entry. Check or mark the box if the mobile property involved, was stolen. Blank means no.

- This is a unique to Massachusetts element.

STRUCTURE FIRE MODULE (MFIRS–3)

The Structure Fire Module (MFIRS–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.

A copy of the paper form of this module is presented in Appendix A. 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.

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.

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.

Entry. Check or mark the box best indicating the status of the building involved in the fire.

BUILDING STATUS CODES

1	Under construction.
2	In normal use.

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.

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).

I4

Main Floor Size ★

Definition. The size of the main floor in square feet. This is an estimate.

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.

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.

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 MFIRS 5.0.

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.

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.

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.

Entry. Enter the number of stories damaged by flame according to the indicated criteria. Count the roof as part of the top story.

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).

Entry. Enter the two-digit code and description best describing the item contributing most to flame spread.

ITEM CONTRIBUTING MOST TO FLAME SPREAD 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 by-product of an operation.
96 Rubbish, trash, waste.
97 Oily rags.
00 Item contributing most to flame spread, other.
UU Undetermined.

K2 *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.

Entry. Enter the two-digit code and description that best describes the type of material contributing most to flame spread.

- An alphabetized synonym list for the following Type of Material Contributing Most to Flame Spread codes is presented in the *Complete Reference Guide,* 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 IC 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 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.

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.

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.

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.

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.

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.

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.

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.

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.

Entry. Check or mark the box best describing the effectiveness of the detector.

- This field is required if the detector operated.

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.

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.

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.

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.

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.

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.

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.

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.

OPERATION OF AUTOMATIC EXTINGUISHING SYSTEM CODES

1	System operated and was effective.
2	System operated and was not effective.
3	Fire too small to activate the system.
4	System did not operate.
0	Operation of AES, other.
U	Undetermined.

M4 *Number of Sprinkler Heads Operating*

Definition. The total number of sprinkler heads that operated during the fire.

Entry. Enter the total number of sprinkler heads that operated during the fire.

- This field is required if the sprinkler system activated.

M5 *Reason for Automatic Extinguishing System Failure*

Definition. The reason why the automatic extinguishing system failed to operate or did not operate properly.

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.

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.

CIVILIAN FIRE CASUALTY MODULE (MFIRS–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. A copy of the paper form of this module is presented in Appendix A.

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.

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.

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.

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.

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.

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.

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.

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.

Date of Birth

Definition. The month, day, and year of birth of the casualty. . This data element is used as an alternate method for calculating the casualty's age. Age is collected in MFIRS but Date of Birth is not.

Entry. Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

SECTION E

E1

Race ★

Definition. The identification of the race of the casualty, based on U.S. Office of Management and Budget (OMB) designations.

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.

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.

E2

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.

Entry. Check or mark the appropriate box.

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 (MFIRS–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.

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.

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).

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.

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.

SECTION H

H

Severity ★

- *Severity* was known as *Case Severity* in MFIRS 4.1.

Definition. The relative severity or seriousness of the injury on a scale from "least serious" (minor) to "most serious" (death).

Entry. Check or mark the box that best describes the severity of the injury.

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.

Entry. Check or mark the box that best describes the cause of the injury.

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 MFIRS 4.1.

Definition. The physical or mental state of the person before becoming a casualty.

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.

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.

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.

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

L

Activity When Injured ★

- *Activity When Injured* was known as *Activity at Time of Injury* in MFIRS 4.1.

Definition. The action or activity in which the person was engaged at the time of the injury.

Entry. Check or mark the box that best describes the activity of the casualty when injured.

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.*

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.

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.*

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.

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.

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 MFIRS 5.0.

M4

Story Where Injury Occurred ★

Definition. Identifies the story where the casualty was located when the injury occurred.

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.

M5 *Specific Location at Time of Injury ★*

Definition. Identifies the specific location of the casualty at the time of the injury.

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.

- An alphabetized synonym list for Specific Location at Time of Injury Codes is presented in the *Complete Reference Guide,* 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, mailroom, 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 automobile, 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
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 area, 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.

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.

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.

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).

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.

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.

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.

FIRE SERVICE CASUALTY MODULE (MFIRS–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. A copy of the paper form of this module is presented in Appendix A.

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.

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 Fire Service Casualty Module or a deletion of all information regarding the casualty.

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.

Entry. Enter the full name of the person. Names should be clearly printed or typed.

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.

Entry. Enter the casualty's identification number in the spaces provided. This field is left-justified.

Gender ★

Definition. The identification of the fire service casualty as male or female.

Entry. Check or mark the appropriate gender of the fire service casualty.

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.

Entry. Check or mark the box that best describes the affiliation of the fire service casualty.

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.

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.

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.

Entry. Enter the age of the firefighter.

Date of Birth

Definition. The month, day, and year of birth of the fire service casualty. This data element is used as an alternate method for calculating the casualty's age. Age is collected in MFIRS but Date of Birth is not.

Entry. Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

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).

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.

Entry. Enter as closely as possible the time when the injury occurred using the 24-hour clock (i.e., 0000–2359).

SECTION F

F

Responses ★

Definition. The number of incidents the firefighter responded to in the 24-hour period prior to the time of 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.

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 MFIRS 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).

Entry. Check or mark the box that best describes the primary duty assignment of the injured firefighter.

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 MFIRS 4.1.

Definition. The general physical condition of the firefighter prior to injury.

Entry. Check or mark the box that best describes the physical condition of the firefighter at the time of injury.

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."

Entry. Check or mark the box that best describes the severity of the casualty.

- A *health exposure* occurs when fire service personnel are exposed to 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. 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 MFIRS 4.1.

Definition. Identifies where the fire service casualty was taken after the injury occurred.

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.

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 *Fire Fighter Activity* in MFIRS 4.1.

Definition. The activity being performed by the firefighter at the time the injury occurred.

Entry. Enter the two-digit code and description of the activity of the casualty when injured.

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. Operating fire department apparatus, other.

Extinguishing Fire or Neutralizing Incident

31 Handling charged hose lines. 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.

H1

Primary Apparent Symptom ★

Definition. The firefighter's most serious apparent injury.

Entry. Enter the two-digit code and description of the casualty's that appears to be the most serious.

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.

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.

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.

I1

Cause of Firefighter Injury ★

Definition. The action or lack of action that directly resulted in the injury.

Entry. Enter the code and a written description for the immediate cause or condition responsible for the injury.

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 Fire Fighter Injury* in MFIRS 4.1.

Definition. The most significant factor contributing to the injury of the fire service casualty.

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.

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.

I3 *Object Involved in Injury ★*

Definition. The description of the object, if one was involved, that contributed to the injury of the fire service casualty.

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.

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, 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.

Entry. Check or mark the box that best describes where the injury took place.

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.

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 MFIRS 5.0.

J3 *Specific Location Where Injury Occurred ★*

Definition. This element identifies the specific location of the fire service casualty at the time of injury.

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.

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.

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.

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.

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.

EQUIPMENT FAILED CODES

Y	Yes.
N	No.

K2 *Protective Equipment Item*

- Protective Equipment Item replaces the five individual equipment lists in MFIRS 4.1

Definition. This block records information about the faulty protective equipment item that was a factor in the firefighter's injury.

Entry. Check or mark the box that best describes the piece of protective equipment that failed and contributed to the injury.

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 MFIRS 4.1

Definition. The most serious problem with the piece of equipment that failed and contributed to the injury.

Entry. Check or mark the box that best describes the protective equipment problem.

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 designated 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.

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.

EMS MODULE (MFIRS–6)

The EMS Module is an optional module. It should be used when that option has been chosen by your state or local authorities. A copy of this modules paper form is presented in Appendix A.

- 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 car 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, 351–381, 400–431, 451, or 900 is reported in Section C of the Basic Module (MFIRS–1).

- If the EMS is a fire casualty, completion of a separate Civilian Fire Casualty or Fire Service Casualty Module (MFIRS–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.

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.

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.

Entry. Enter the total number of patients.

- Complete a separate EMS Module for each patient treated.

Patient Number ★

Definition. A unique number is assigned to each patient treated at a single EMS incident.

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.

SECTION C

C

Date and Time Arrived at Patient and Time of Patient Transfer

Definition. *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.

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.

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.

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.

PROVIDER IMPRESSION/ASSESSMENT CODES

10	Abdominal pain. Includes an acute or painful abdomen and cramps. Excludes abdominal trauma.
11	Airway obstruction. Includes choking, swelling of the neck, croup, epiglottis, and a foreign body in the airway.
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.
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.

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.

Date of Birth

Definition. The month, day, and year of birth of the patient. . This data element is used as an alternate method for calculating the patient's age. Age is collected in MFIRS but Date of Birth is not.

Entry. Enter the date of birth showing the month, day, and year (mm/dd/yyyy).

E2

Gender

Definition. The identification of the patient as male or female.

Entry. Check or mark the box that indicates the patient's gender.

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.

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.

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.

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.

Entry. Check or mark the appropriate box.

ETHNICITY CODES

1	Hispanic or Latino.
0	Non Hispanic or Latino.

SECTION G

The entries in this section collect information on the factors that contributed to the injury of the patient.

G1

Human Factors Contributing to Injury

- *Human Factors Contributing to Injury* was known as *Condition Before Injury* in MFIRS 4.1.

Definition. The physical or mental state of the person shortly before becoming a patient.

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.

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.

Entry. Check or mark the appropriate box. If the three codes are not applicable, check or mark the None box.

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 MFIRS 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).

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.

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.

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.

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.

Entry. Enter the two-digit code that indicates the immediate cause or condition responsible for the injury or illness.

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 fireworks.
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.

Entry. Check or mark all applicable boxes. If no treatment was provided, check only the No Treatment box.

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	Prearrival 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.

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

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.

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.

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.

Entry. Check or mark the appropriate box.

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 can the responder provided.

L

Initial Level of Provider ★

Definition. The training level of the first fire department responder(s) to treat the patient.

Entry. Check or mark the box that best describes the initial level of care the patient received from the fire department.

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 doctors, nurses, etc.
N	No training.

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.

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.

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 training.

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.

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.

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.

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.

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.

HAZARDOUS MATERIALS MODULE (MFIRS–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. A copy of the paper form of this module is presented in Appendix A.

The HazMat Module is used when the Other box in Block H3 ("Hazardous Materials Release") of the Basic Module (MFIRS–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 policy makers 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.

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.

HazMat Number (Haz No.) ★

Definition. A unique HazMat number is assigned to each hazardous material involved in the incident.

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.

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.

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.

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 the *Complete Reference Guide,* Appendix D.

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.

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 MFIRS data collection, this two-part hazard class/division code has been converted into a two-digit code.

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.

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 the *Complete Reference Guide,* Appendix D. Leave the entry blank if a CAS registration number has not been assigned.

- Enter the number as it appears, including dashes.

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.

Entry. Enter the chemical or trade name of the hazardous material as shown on the MSDS, product label, packaging, or container.

- Those chemicals listed in the *Hazardous Materials Guide for First Responders,* published by the U.S. Fire Administration, are also cross-referenced in the *Complete Reference Guide.* 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.

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.

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 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.

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.

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.

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 reontgen.
34 Mili reontgen.
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.

Entry. Enter the estimated amount of material released from the container, by volume or weight, to the nearest whole unit of measure.

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.

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 reontgen.
34	Mili reontgen.
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.

Entry. Check or mark the box best describing the physical state of the material when released.

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.

Entry. Enter the code that best describes the environment contaminated by the hazardous material.

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.

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 MFIRS 5.0.

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.

Entry. Check or mark the box best describing the area where the hazardous material was released.

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, on 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.

Entry. Check or mark the appropriate unit-of-measurement box and enter the numeric value for the measurement of the area affected.

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.

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.

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.

Entry. Enter the estimated number of people evacuated.

G4

Estimated Number of Buildings Evacuated

Definition. The estimated number of buildings evacuated due to the hazardous materials release or potential 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.

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.

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.

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 them 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.

Tier Levels

Definition. This field indicates the level of response received from state resources.

- This field does not apply to Boston, Cambridge, Springfield and other communities that have their own HazMat teams.

Entry. Enter the two-digit code and description for the highest state response level taken during the incident.

- This is a unique to Massachusetts element.

Tier Level Codes

01	Tier One	Hazard and risk assessment.
02	Tier Two	Short term operations.
03	Tier Three	Long term operations.
04	Tier Four	Multiple team operations.

Number of Entries

Definition. This field indicates the total number of 15-minute entries made be all responders.

Entry. Enter the total number of 15-minute entries made by all responders

- This is a unique to Massachusetts element.

Suit/PPE Levels

Definition. This field indicates the maximum level of Personal Protective Equipment used by the responders.

Entry. Enter the two-digit code and description for the highest suit/PPE level used

during the incident.

- This is a unique to Massachusetts element.

Suit/PPE Level Codes

01 Level A Fully encapsulating, gas-tight, chemical protective clothing with SCBA or supplied air.
02 Level B Fully encapsulating or non-encapsulating chemical protective clothing with SCBA or supplied air.
03 Level C Non-encapsulating chemical protective clothing with air purifying respirator.
04 Level D Firefighting turnout protective clothing.

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.

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.

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.

Entry. Check or mark the box that best describes the cause or reason for the release.

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.

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.

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.

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.

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 MFIRS 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.

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.
- An alphabetized synonym list for the following Equipment Involved in Release codes is presented in the *Complete Reference Guide,* 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 Ignition

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.

Entry. Enter the brand, model, serial number, and year of the equipment involved in the release.

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.

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.

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 "fourdoor" (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.

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.

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.

MOBILE PROPERTY TYPE CODES

Passenger Road Vehicles

11	Automobile, passenger car, ambulance, limousine, racecar, 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 watercraft. Includes one-or two-person recreational watercraft.
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 forklifts, 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
AG	Agco
AL	Allis Chalmers
AM	Aston Martin
AN	Ariens
AR	Alfa Romeo
AT	ATK
AU	Audi
AV	Antique Vehicle
AY	Avery
BE	Beta
BL	Buell
BM	BMW
BO	Bobcat
BR	Briggs
BS	Belarus
BU	Buick
CA	Case
CB	Case - David Brown
CC	Crane Carrier (CCC)
CD	Cadillac
CE	Century
CH	Chevrolet
CI	Case IH
CO	Continental
CP	Caterpillar
CR	Chrysler
CU	Cub Cadet
CV	Classic Vehicle
DA	Daihatsu
DE	Demco
DF	Duetz-Fahr
DI	Dixon
DO	Dodge
DR	Diamond Reo
DS	Duetz-Allis
DT	Duetz
DU	Ducati
EA	Eagle
ER	Eager
EU	Euclid
FA	Farmall
FE	Ferrari
FG	Frigstad
FK	Farm King
FM	Farmtrac
FO	Ford
FR	Freightliner
FT	Fetrel
FW	FWD
GE	Geo
GH	Gehl
GI	Giehl
GL	Gleaner
GM	GMC (General Motors)
GV	GVM
HB	Haybuster
HD	Harley Davidson
HE	Hesston
HG	Hough
HI	Hino
HO	Honda
HS	Husky
HU	Husqverna
HV	Harvester
HX	Hydrax
HY	Hyundai
IF	Infiniti
IH	International Harvester
IL	International Farmall
IN	International
IS	Isuzu
IT	Italjet
IV	Iveco
JA	Jaguar
JD	John Deere
JE	Jeep
KA	Kawasaki
KE	Kenworth
KI	Kia
KM	Komatsu
KN	Knight
KO	Kioti
KR	Krause
KT	KTM
KU	Kubuta
KZ	Kinze
LC	Land Chief
LE	Lexus
LI	Lincoln
LN	Long
LO	Lotus
LR	Land Rover
LT	Landtrac
MA	Maico
MB	Mercedes Benz
MC	Mercury
MD	MTD
ME	Melroe
MF	MHF
MG	Moto Guzzi
MH	Marmon
MI	Mahindra
MJ	McKee
MK	Mack
ML	Maely
MM	Moto Morini
MN	MacDon
MO	Montesa
MR	Merkur
MS	Maserati
MT	Mitsubishi
MU	Murray
MV	Massey Harris-Ferguson
MW	Montgomery Ward
MY	Massey Ferguson
MZ	Mazda
NA	Navistar
NE	New Idea
NH	New Holland
NI	Nissan
OL	Oldsmobile
OS	Oshkosh
OV	Oliver
OW	Owatona
PI	Pierce
PL	Plymouth
PN	Pontiac
PR	Porsche
PT	Peterbilt
PU	Peugeot
RD	Red Devil
RG	Rogue (Ottowa)
RN	Range Rover
RR	Rolls Royce
SA	Saturn
SB	Saab
SC	Scania
SD	Simon Duplex
SE	Sears Craftsman
SG	Scagg

SI	Simplicity	TT	Toro	WG	White GMC
SN	Snapper	UD	UD	WH	White
SR	Steiger	UR	Ursus	WK	Walker
ST	Sterling	UT	Utilmaster	WL	Walter
SU	Subaru	VE	Vespa	WS	Western Star
SZ	Suzuki	VG	Volvo GMC	WW	Westward
TB	Troy-Bilt	VL	Volvo	YA	Yamaha
TJ	Trojan	VO	Volkswagen	YM	Yardman
TL	Trelan	VR	Vermeer	YU	Yugo
TO	Toyota	VS	Versatile	ZT	Zetor
TR	Triumph	WD	Woods	OO	Other Make

SECTION O

O

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.

Entry. Check or mark the box that best describes the final disposition of the incident by the fire department.

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.

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.

WILDLAND FIRE MODULE (MFIRS–8)

Historically, MFIRS 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, type of materials involved, conditions that contributed to the ignition and spread of wildland fires, and 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.

A copy of the paper form of this module is presented in Appendix A. In accordance with your state or local policy, the Wildland Fire Module may be used in place of the Fire Module (MFIRS–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.

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.

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 Wildland Fire Module or a deletion of all information regarding the incident.

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 in the *Complete Reference Guide,* Chapter 10.

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	33	Willamette
02	Second Principal	18	Louisiana	34	Wind River
03	Third Principal	19	Michigan	35	Ohio
04	Fourth Principal	20	Principal	36	Great Miami River
05	Fifth Principal	21	Mt. Diablo	37	Muskingum River
06	Sixth Principal	22	Navajo	38	Ohio River
07	Black Hills	23	New Mexico	39	First Scioto River
08	Boise	24	St. Helena	40	Second Scioto River
09	Chickasaw	25	St. Stephens	41	Third Scioto River
10	Choctaw	26	Salt Lake	42	Ellicotts Line
11	Cimarron	27	San Bernardino	43	12 Mile Square
12	Copper River	28	Seward	44	Kateel River
13	Fairbanks	29	Tallahassee	45	Umiat
14	Gila and Salt River	30	Uintah	UU	Undetermined
15	Humboldt	31	Ute		
16	Huntsville	32	Washington		

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.

SECTION C

C

Area Type ★

Definition. A general description of the area where the wildland fire occurred.

Entry. Check or mark the box that best describes the area type where the wildland fire occurred.

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. Wildland Fire Cause

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).

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.

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	Misues 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.

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.

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 MFIRS 4.1.*

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

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.

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 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.

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.

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 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/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 MFIRS 4.1.

Definition. The specific source of the heat energy that started the fire.

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

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.

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.

MOBILE PROPERTY TYPE CODES

Passenger Road Vehicles

11 Automobile, passenger car, ambulance, limousine, racecar, 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 watercraft. Includes one-or two-person recreational watercraft.
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.

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.

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.

- If Incident Type not 13X and Heat Source = 6X or Factors Contributing to Ignition = 36-37 or 52-58, then Equipment Involved in Ignition is required and cannot be NNN - None.

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, stove 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.
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

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.

Entry. Enter the six-digit NFDRS Weather Station ID number.

- 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.

Entry. Enter the two-digit code and description for the weather conditions at the time and location of fire origin.

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.

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.

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.

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.”

Temperature and Relative Humidity

Definition. 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.

Entry. 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.

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%).

Entry. Enter the fuel moisture percentage level.

Fire Danger Rating

Definition. Fire danger rating refers to one method of describing the wildfire threat in a particular area, based on the National Fire Danger Rating System. 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.

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.

SECTION I

This section collects information on the types of properties threatened or destroyed in a wildland fire and the magnitude of the loss.

I1

Number of Buildings Ignited

Definition. The number of buildings, if any, that were ignited by the wildland fire.

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.

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.

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.

I3

Total Acres Burned ★

Definition. This data element captures the total acres burned by a wildland fire.

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.

I4

Primary Crops Burned

Definition. This data element identifies up to three types of crops that burned.

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.

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.

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.

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.

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.

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.

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 ft (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 accounted for. 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 or not a person (known or unknown) was responsible for the fire (either by carelessness or intent).

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 (MFIRS–1S).

- If a person was identified as having caused the fire, complete Blocks L2–L4.

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).

Entry. Check or mark the box that describes the gender of the person responsible for the fire.

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.

Entry. Enter the age of the person responsible for the fire. Estimate the age if it cannot be determined.

Date of Birth

Definition. The month, day, and year of the birth of the person responsible for the fire.

- This data element is used as an alternate method for calculating the casualty's age. Age is collected in MFIRS 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).

L4 *Activity of Person Involved*

Definition. Describes the primary activity of the person who was responsible for the fire.

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.

ACTIVITY OF PERSON INVOLVED CODES

01 Logging/timer 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.

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.

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.

Entry. Enter the distance from mean sea level measured in feet.

Relative Position on Slope

Definition. This observation indicates a point location's relative position on a slope.

Entry. Enter the appropriate code and description of the relative position on the slope.

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.

Entry. Enter the appropriate code and description of the general direction that a given slope faces.

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.

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.

APPARATUS OR RESOURCES MODULE (MFIRS–9)

The Apparatus or Resources Module (MFIRS–9) is an optional module that is used to help manage and track apparatus and resources used on incidents. A copy of the paper form of this module is presented in Appendix A.

- If both apparatus *and* personnel need to be reported, use the Personnel Module (MFIRS–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.

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 Apparatus or Resources Module or a deletion of all information regarding the incident.

Entry: Check or mark the Delete 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.

Check or mark the Change 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.

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 MFIRS–9 module.

- Individual fire departments often assign a unique number to each piece of apparatus in the department.

APPARATUS OR RESOURCE TYPE CODES

Ground Fire Suppression

10 Ground fire suppression, other.
11 Engine.
12 Truck or aerial.
13 Quint.
14 Tanker and pumper combination.
16 Brush truck.
17 ARFF (aircraft rescue and firefighting).

Heavy Ground Equipment

20 Heavy ground equipment, other.
21 Dozer or plow.
22 Tractor.
24 Tanker or tender.

Aircraft

40 Aircraft, other.
41 Aircraft, fixed-wing tanker.
42 Helitanker.
43 Helicopter.

Marine Equipment

50 Marine equipment, other.
51 Fire boat with pump.
52 Boat, no pump.

Support Equipment

60 Support apparatus, other.
61 Breathing apparatus support.
62 Light and air unit.

Medical and Rescue Unit

70 Medical and rescue unit, other.
71 Rescue unit.
72 Urban search and rescue unit.
73 High-angle rescue unit.
75 BLS unit.
76 ALS unit.

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.

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.

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.

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.

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.

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.

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.

Entry: Check or mark the Sent box if the apparatus responded to the incident.

Number of People ★

Definition: The number of emergency personnel on the apparatus.

Entry: Enter the number of personnel on the apparatus.

Apparatus or Resources Use ★

Definition: The main use of the apparatus or resource at the incident.

Entry: Check or mark the box that best describes the primary use of the apparatus or resource at the incident.

APPARATUS USE CODES

1 Suppression.
2 EMS.
3 Other.

Actions Taken

Definition: The duties performed at the incident scene by the apparatus or resource personnel.

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.

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.
80 Information, investigation, and enforcement, other.

Fill-in, Standby

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

PERSONNEL MODULE (MFIRS–10)

The Personnel Module (MFIRS–10) is an optional module that is used to help manage and track personnel and resources used on incidents. A copy of the paper form of this module is presented in Appendix A.

- If only apparatus or resources need to be reported, use the Apparatus or Resources Module (MFIRS–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.

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 Personnel Module or a deletion of all information regarding the incident.

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.

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 MFIRS–10 module.

- Individual fire departments often assign a unique number to each piece of apparatus in the department.

APPARATUS OR RESOURCE TYPE CODES

Ground Fire Suppression

10 Ground fire suppression, other.
11 Engine.
12 Truck or aerial.
13 Quint.
14 Tanker and pumper combination.
16 Brush truck.
17 ARFF (aircraft rescue and firefighting).

Heavy Ground Equipment

20 Heavy ground equipment, other.
21 Dozer or plow.
22 Tractor.
24 Tanker or tender.

Aircraft

40 Aircraft, other.
41 Aircraft, fixed-wing tanker.
42 Helitanker.
43 Helicopter.

Marine Equipment

50 Marine equipment, other.
51 Fire boat with pump.
52 Boat, no pump.

Support Equipment

60 Support apparatus, other.
61 Breathing apparatus support.
62 Light and air unit.

Medical and Rescue Unit

70 Medical and rescue unit, other.
71 Rescue unit.
72 Urban search and rescue unit.
73 High-angle rescue unit.
75 BLS unit.
76 ALS unit.

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.

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.

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.

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.

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.

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.

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.

Entry. Check or mark the Sent box if the apparatus responded to the incident.

Number of People ★

Definition. The number of emergency personnel on the apparatus.

Entry. Enter the number of personnel on the apparatus.

Apparatus or Resource Use ★

Definition. The main use of the apparatus or resource at the incident.

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.

APPARATUS USE CODES

1 Suppression.
2 EMS.
3 Other.

Actions Taken

Definition. The duties performed at the incident scene by the apparatus or resource personnel.

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.

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.
80 Information, investigation, and enforcement, other.

Fill-in, Standby

91 Fill in, move up to another fire station.
92 Standby.
93 Canceled en route.
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.

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.

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.

Entry. Check or mark the Attend box if the person responded to the incident.

Actions Taken

Definition. The duties performed at the incident scene by the individual responder.

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 214.

ARSON MODULE (MFIRS–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 MFIRS 5.0 Arson Module (MFIRS–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 Arson Module is to be used whenever the Cause of Ignition (Fire Module, Block E1) is coded as Intentional without any distinction made as to whether or not a crime has occurred or a determination of criminal intent. The Arson Module may also be used when the fire is coded as Cause Under Investigation or Cause Undetermined After Investigation. A copy of the paper form of this module is presented in Appendix A.

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 MFIRS 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.

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 Arson Module or a deletion of all information regarding the incident.

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.

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.

SECTION C

C

Case Status ★

Definition. The current status of the investigation.

Entry. Check or mark the box that best describes the status of the investigation at this time.

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.

Entry. Check or mark the box that best describes the availability of the material first ignited.

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.

Entry. Check or mark up to three boxes that best indicate the factors or conditions that constituted possible motivations for the subject.

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

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.

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.

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.
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.

Entry. Enter the two-digit code and description of the subject's method of entry to the property.

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.

Entry. Enter the code and description for the extent of fire involvement on arrival at the incident scene.

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.

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).

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.

Entry. Check or mark all the boxes that apply to the case.

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.

Entry. Check or mark the box that best describes the ownership of the property.

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.

Entry. Check or mark all the boxes that apply.

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.

Entry. Case investigators can use this information to locate all the evidence associated with a specific incident.

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.

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 completed for the second, third, etc., juveniles.

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.

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.

Entry. Enter the age of the subject involved in the fire's ignition. Estimate the age if it cannot be determined.

Date of Birth

Definition. The month, day, and year of birth of the subject. This data element is used as an alternate method for calculating the subject's age. Age is collected in MFIRS but Date of Birth is not.

Entry. Enter the date of birth of the subject showing the month, day, and year (mm/dd/yyyy).

M3

Gender ★

Definition. The identification of the subject as male or female.

Entry. Check or mark the box that indicates the subject's gender.

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.

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.

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.

Entry. Check or mark the appropriate box.

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.

Entry. Check or mark the box that best describes the subject's family type.

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.

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.

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.

Entry. Check or mark the box that best describes the disposition of the subject.

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.

SUPPLEMENTAL FORM (MFIRS–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). A copy of the paper form of this module is presented in Appendix A.

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.

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 Supplemental Form or a deletion of an incorrect report.

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

K

Person/Entity Involved

Business Name

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

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.

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.

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.

Address

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

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.

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.

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.

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.

Entry. Enter the abbreviation for the state associated with the person's or entity's address.

- A list of state abbreviations is on page 2.

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 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.

SECTION E

E

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 National Fire Data Center 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 National Fire Data Center.

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 National Fire Data Center can define Special Studies fields.

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

FDID Numbers

The following is an alphabetical listing of Massachusetts Fire Departments with their FDID #'s:

23001.....Abington Fire Department
17002.....Acton Fire Department
05003.....Acushnet Fire Department
03004.....Adams Fire Department
13005.....Agawam Fire Department
03006.....Alford Fire Department
09007.....Amesbury Fire Department
15008.....Amherst Fire Department
09009.....Andover Fire Department
07104.....Aquinnah Fire Department
17010.....Arlington Fire Department
27011.....Ashburnham Fire Department
17012.....Ashby Fire Department
11013.....Ashfield Fire Department
17014.....Ashland Fire Department
27015.....Athol Fire Department
05016.....Attleboro Fire Department
27017.....Auburn Fire Department
21018.....Avon Fire Department
17019.....Ayer Fire Department
01919.....Barnstable Fire Department
27021.....Barre Fire Department
03022.....Becket Fire Department
17023.....Bedford Fire Department
15024.....Belchertown Fire Department
21025.....Bellingham Fire Department
17026.....Belmont Fire Department
05027.....Berkley Fire & Rescue
27028.....Berlin Fire Department
11029.....Bernardston Fire Department
09030.....Beverly Fire Department
17031.....Billerica Fire Department
27032.....Blackstone Fire Department
13033.....Blandford Fire Department
27034.....Bolton Fire Department
13987.....Bondsville Fire Department
25035.....Boston Fire Department
01036.....Bourne Fire Department
17037.....Boxborough Fire Department
09038.....Boxford Fire Department
27039.....Boylston Fire Department
21040.....Braintree Fire Department
01041.....Brewster Fire Department
23042.....Bridgewater Fire Department
13043.....Brimfield Fire Department
23044.....Brockton Fire Department
27045.....Brookfield Fire Department
21046.....Brookline Fire Department
11047.....Buckland Fire District
17048.....Burlington Fire Department
17049.....Cambridge Fire Department
21050.....Canton Fire Department
17051.....Carlisle Fire Department
23052.....Carver Fire Department
01920.....C.O.M.M. Fire Department
11053.....Charlemont Fire Department
27054.....Charlton Fire Department
01055.....Chatham Fire Department
17056.....Chelmsford Fire Department
25057.....Chelsea Fire Department
03058.....Cheshire Fire Department
13059.....Chester Fire Department
15060.....Chesterfield Fire Department
13061.....Chicopee Fire Department
07062.....Chilmark Fire Department
03063.....Clarksburg Vol. Fire Department
27064.....Clinton Fire Department
21065.....Cohasset Fire Department
11066.....Colrain Fire Department
17067.....Concord Fire Department
11068.....Conway Fire Department
01921.....Cotuit Fire Department
15069.....Cummington Fire Department
03070.....Dalton Fire Department
09071.....Danvers Fire Department
05972.....Dartmouth Dist.1 Fire Department
05973.....Dartmouth Dist.2 Fire Department
05974.....Dartmouth Dist.3 Fire Department
21073.....Dedham Fire Department
11975.....Deerfield Fire Department
01075.....Dennis Fire Department
17919.....Devens Fire Department
05076.....Dighton Fire Department
27077.....Douglas Fire Department
21078.....Dover Fire Department
17079.....Dracut Fire Department
27080.....Dudley Fire Department
17081.....Dunstable Fire Department
23082.....Duxbury Fire Department
23083.....East Bridgewater Fire Department
27084.....East Brookfield Fire Department
13085.....East Longmeadow Fire Department
01086.....Eastham Fire Department
15087.....Easthampton Fire Department
05088.....Easton Fire & Rescue Department
07089.....Edgartown Fire Department
03090.....Egremont Fire Department
11091.....Erving Fire Department
09092.....Essex Fire Department
17093.....Everett Fire Department
05094.....Fairhaven Fire Department
05095.....Fall River Fire Department
01096.....Falmouth Fire Rescue
27097.....Fitchburg Fire Department
03098.....Florida Fire Department
21099.....Foxboro Fire & Rescue
17100.....Framingham Fire Dept
21101.....Franklin Fire Department
05102.....Freetown Fire Department
27103.....Gardner Fire Department
09105.....Georgetown Fire Department
11106.....Gill Fire Department

09107.....Gloucester Fire Department
15108.....Goshen Fire Department
07109.....Gosnold Fire Department
27110.....Grafton Fire Department
15111.....Granby Fire Department
13112.....Granville Fire Department
03113.....Great Barrington Fire Department
11114.....Greenfield Fire Department
17115.....Groton Fire Department
09116.....Groveland Fire Department
15117.....Hadley Fire Department
23118.....Halifax Fire Department
09119.....Hamilton Fire Department
13120.....Hampden Fire Department
03121.....Hancock Fire Department
23122.....Hanover Fire Department
23123.....Hanson Fire Department
27124.....Hardwick Fire Department
27125.....Harvard Fire Department
01126.....Harwich Fire Department
15127.....Hatfield Fire Department
09128.....Haverhill Fire Department
11129.....Hawley Fire Department
11130.....Heath Fire Department
23131.....Hingham Fire Department
03132.....Hinsdale Fire Department
21133.....Holbrook Fire Department
27134.....Holden Fire Department
13135.....Holland Fire Department
17136.....Holliston Fire Department
13137.....Holyoke Fire Department
27138.....Hopedale Fire Department
17139.....Hopkinton Fire Department
27140.....Hubbardston Fire Department
17141.....Hudson Fire Department
23142.....Hull Fire Department
15143.....Huntington Fire Department
01922.....Hyannis Fire Department
09144.....Ipswich Fire Department
23145.....Kingston Fire Department
11985.....Lake Pleasant Fire Department
23146.....Lakeville Fire Department
27147.....Lancaster Fire Department
03148.....Lanesboro Fire Department
09149.....Lawrence Fire Department
03150.....Lee Fire Department
27151.....Leicester Fire Department
03152.....Lenox Fire Department
27153.....Leominster Fire Department
11154.....Leverett Fire Department
17155.....Lexington Fire Department
11156.....Leyden Fire Department
17157.....Lincoln Fire Department
17158.....Littleton Fire Department
13159.....Longmeadow Fire Department
17160.....Lowell Fire Department
13161.....Ludlow Fire Department
27162.....Lunenburg Fire Department
09163.....Lynn Fire Department
09164.....Lynnfield Fire Department
17165.....Malden Fire Department
09166.....Manchester Fire Department
05167.....Mansfield Fire Department
09168.....Marblehead Fire Department
23169.....Marion Fire Department
17170.....Marlborough Fire Department
23171.....Marshfield Fire Department
01172.....Mashpee Fire & Rescue Department
25935.....Massport Fire-Rescue
23173.....Mattapoisett Fire Department
17174.....Maynard Fire Department
21175.....Medfield Fire Department
17176.....Medford Fire Department
21177.....Medway Fire Department
17178.....Melrose Fire Department
27179.....Mendon Fire Department
09180.....Merrimac Fire Department
09181.....Methuen Fire Department
23182.....Middleboro Fire Department
15183.....Middlefield Fire Department
09184.....Middleton Fire Department
27185.....Milford Fire Department
27186.....Millbury Fire Department
21187.....Millis Fire Department
27188.....Millville Fire Department
21189.....Milton Fire Department
01936.....MMR Fire Department (MA Mil. Res.)
11190.....Monroe Fire Department
13191.....Monson Fire Department
11192.....Montague Fire Department
03193.....Monterey Fire Department
13194.....Montgomery Fire Department
09196.....Nahant Fire Department
19197.....Nantucket Fire Department
17198.....Natick Fire Department
21199.....Needham Fire Department
03200.....New Ashford Fire Department
05201.....New Bedford Fire Department
27202.....New Braintree Fire Department
03203.....New Marlborough Fire Department
11204.....New Salem Fire Department
09205.....Newbury Fire Department
09205.....Newbury Protection Co. #2
09206.....Newburyport Fire Department
17207.....Newton Fire Department
21208.....Norfolk Fire Department
03209.....North Adams Fire Department
09210.....North Andover Fire Department
05211.....North Attleboro Fire Department
27212.....North Brookfield Fire Department
17213.....North Reading Fire Department
15214.....Northampton Fire Department
27215.....Northborough Fire Department
27216.....Northbridge Fire Department
11217.....Northfield Fire Department
05218.....Norton Fire Department
23219.....Norwell Fire Department
21220.....Norwood Fire Department
07221.....Oak Bluffs Fire Department
27222.....Oakham Fire Department
23993.....Onset Fire Department
11223.....Orange Fire Department
01224.....Orleans Fire Department
03225.....Otis Fire Department
27226.....Oxford Fire Department
13986.....Palmer Fire Department

27228.....Paxton Fire Department
09229.....Peabody Fire Department
15230.....Pelham Fire Department
23231.....Pembroke Fire Department
17232.....Pepperell Fire Department
03233.....Peru Fire Department
27234.....Petersham Fire Department
27235.....Phillipston Fire Department
03236.....Pittsfield Fire Department
15237.....Plainfield Fire Department
21238.....Plainville Fire Department
23239.....Plymouth Fire Department
23240.....Plympton Fire Department
27241.....Princeton Fire Department
01242.....Provincetown Fire Department
21243.....Quincy Fire Department
21244.....Randolph Fire Department
05245.....Raynham Fire Department
17246.....Reading Fire Department
05247.....Rehoboth Fire Department
25248.....Revere Fire Department
03249.....Richmond Fire Department
23250.....Rochester Fire Department
23251.....Rockland Fire Department
09252.....Rockport Fire Department
11253.....Rowe Fire Department
09254.....Rowley Fire Department
27255.....Royalston Fire Department
13256.....Russell Fire Department
27257.....Rutland Fire Department
09258.....Salem Fire Department
09259.....Salisbury Fire Department
03260.....Sandisfield Fire Department
01261.....Sandwich Fire Department
09262.....Saugus Fire Department
03263.....Savoy Fire Department
23264.....Scituate Fire Department
05265.....Seekonk fire Department
21266.....Sharon Fire Department
03267.....Sheffield Fire Department
11990.....Shelburne Fire Department
11989.....Shelburne Falls Fire/Rescue/EMS
17269.....Sherborn Fire Department
17270.....Shirley Fire Department
27271.....Shrewsbury Fire Department
11272.....Shutesbury Fire Department
05273.....Somerset Fire Department
17274.....Somerville Fire Department
11976.....South Deerfield Fire Department
15978.....South Hadley-District 1
15979.....South Hadley-District 2
15276.....Southampton Fire Department
27277.....Southborough Fire Department
27278.....Southbridge Fire Department
13279.....Southwick Fire Department
27280.....Spencer Fire Department
13281.....Springfield Fire Department
27282.....Sterling Fire Department
03283.....Stockbridge Fire Department
17284.....Stoneham Fire Department
21285.....Stoughton Fire Department
17286.....Stow Fire Department
27287.....Sturbridge Fire Department
17288.....Sudbury Fire Department
11289.....Sunderland Fire Department
27290.....Sutton Fire Department
09291.....Swampscott Fire Department
05292.....Swansea Fire Department
05293.....Taunton Fire Department
27294.....Templeton Fire Department
17295.....Tewksbury Fire Department
13988.....Three Rivers Fire Department
07296.....Tisbury Fire Department
13297.....Tolland Fire Department
09298.....Topsfield Fire Department
17299.....Townsend Fire Department
01300.....Truro Fire Department
11984.....Turners Falls Fire Department
17301.....Tyngsboro Fire Department
03302.....Tyringham Fire Department
27303.....Upton Fire Department
27304.....Uxbridge Fire Department
17305.....Wakefield Fire Department
13306.....Wales Fire Department
21307.....Walpole Fire Department
17308.....Waltham Fire Department
15309.....Ware Fire Department
23991.....Wareham Fire Department
27311.....Warren Fire Department
11312.....Warwick Fire Department
03313.....Washington Fire Department
17314.....Watertown Fire Department
17315.....Wayland Fire Department
27316.....Webster Fire Department
21317.....Wellesley Fire Department
01318.....Wellfleet Fire Department
11319.....Wendell Fire Department
09320.....Wenham Fire Department
01923.....West Barnstable Fire Department
27321.....West Boylston Fire Department
23322.....West Bridgewater Fire Department
27323.....West Brookfield Fire Department
09324.....West Newbury Fire Department
13325.....West Springfield Fire Department
03326.....West Stockbridge Fire Department
07327.....West Tisbury Fire Department
27328.....Westborough Fire Department
13329.....Westfield Fire Department
17330.....Westford Fire Department
15331.....Westhampton Fire Department
27332.....Westminster Fire Department
17333.....Weston Fire Department
05334.....Westport Fire Department
21335.....Westwood Fire Department
21336.....Weymouth Fire Department
11337.....Whately Fire Department
23338.....Whitman Fire-Rescue
13339.....Wilbraham Fire Department
15340.....Williamsburg Fire Department
03341.....Williamstown Fire Department
17342.....Wilmington Fire Department
27343.....Winchendon Fire Department
17344.....Winchester Fire Department
03345.....Windsor Fire Department
25346.....Winthrop Fire Department
17347.....Woburn Fire Department

27348.....Worcester Fire Department
15349.....Worthington Fire - Rescue
21350.....Wrentham Fire Department
01351.....Yarmouth Fire Department

F1004 .....Hanscom Air Force Base
F3046 .....Otis Air Force Base
F2011.....Westover Air Force Base

The Commonwealth of Massachusetts
Department of Fire Services – Office of the State Fire Marshal
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Massachusetts Fire Incident Reporting System – Basic

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | Department Name * | ☐ Delete ☐ Change ☐ No Activity

B

LOCATION * 1 ☐ Street Address 2 ☐ Intersection 3 ☐ In front of 4 ☐ Rear of 5 ☐ Adjacent to 6 ☐ Directions ☐ Check this box if incident address is provided on Wildland Form

Number/Milepost | Prefix | Street or Highway | Street Type | Suffix | Census Tract

Apt./Suite/Room | City | State | Zip Code | Plus 4 | Cross street or directions, as applicable

C

INCIDENT TYPE * **CRITICAL INCIDENT**

Incident Type | ☐ Critical Incident ☐ Team Mobilized | Circumstances

D

Aid Given/Received * | Their FDID | Their State | Their Incident Number

E **DATES & TIMES** (Midnight is 0000)

Check boxes if dates are same as alarm date >		Date	Time
	Alarm *		
☐	Arrival*		
☐	Controlled		
☐	Last Unit Cleared		

Shift or Platoon | Alarms | District

Special Study ID# | Special Study Value

F **ACTIONS TAKEN** *

Primary Action Taken (1) *

Additional Action Taken (2)

Additional Action Taken (3)

G **RESOURCES** *

	Apparatus	Personnel
Suppression		
EMS		
Other		

☐ Check this box if resource counts include aid received resources.

EST. $ LOSSES & VALUES

		None
Property	$	☐
Contents	$	☐

PRE-INCIDENT VALUE

Property	$	☐
Contents	$	☐

H **CASUALTIES** *

	Deaths	Injuries
Fire Service		
Civilian		

DETECTOR: ☐ 1 Alerted Occupants ☐ 2 Didn't Alert Occupants ☐ U Unknown

HAZMAT RELEASE

I **MIXED USE PROPERTY**

J **PROPERTY USE***

Entries contained in this report are intended for the sole use of the State Fire Marshal. Estimations and evaluations made herein represent "most likely" and "most probable" cause and effect. Any

Massachusetts Fire Incident Reporting System – Basic

FDID #: _____ Incident Number *: _____

K1

PERSON/ENTITY INVOLVED ☐ Check this box if same address as incident location. Then skip three duplicate address lines. ☐ More people involved? Attach additional forms.

Business name (if applicable) | Area Code | Phone Number

Mr./Mrs./Ms. | First Name | M/I | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City | State | Zip Code

Insurance Company | Total Insurance

K2

OWNER ☐ Same as person involved? Skip this section. ☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Business Name (if applicable) | Area Code | Phone Number

Mr./Mrs./Ms. | First Name | M/I | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City | State | Zip Code

Insurance Company | Total Insurance

M

OIC ID | First Name | M/I | Last Name | Position/rank | Assignment | Date

MIC ID | First Name | M/I | Last Name | Position/rank | Assignment | Date

☐ Check if same as officer in charge.

The Commonwealth of Massachusetts
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Massachusetts Fire Incident Reporting System – Fire

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B PROPERTY DETAILS

Estimated # of Living Units ☐ Not Residential

Buildings Involved ☐ Buildings Not Involved

Acres Burned ☐ Less than one ☐ None

C ON-SITE MATERIALS/PRODUCTS ☐ None

On-site Material 1 — ☐ 1 Bulk Storage or Warehousing ☐ 2 Processing or Manufacturing ☐ 3 Packaged Goods for Sale ☐ 4 Repair or Service

On-site Material 2 — ☐ 1 Bulk Storage or Warehousing ☐ 2 Processing or Manufacturing ☐ 3 Packaged Goods for Sale ☐ 4 Repair or Service

On-site Material 3 — ☐ 1 Bulk Storage or Warehousing ☐ 2 Processing or Manufacturing ☐ 3 Packaged Goods for Sale ☐ 4 Repair or Service

D IGNITION

Area of Origin *

Heat Source *

Item First Ignited * ☐ Spread limit to first item

Type of Material First Ignited

E CAUSE OF IGNITION *

☐ 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

FACTORS CONTRIBUTING TO IGNITION ☐ None

Factor Contributing to Ignition (1)

Factor Contributing to Ignition (2)

HUMAN FACTORS CONTRIBUTING TO IGNITION

☐ None
☐ 1 Asleep
☐ 2 Possibly alcohol/drug impaired
☐ 3 Unattended person
☐ 4 Possibly mentally disabled
☐ 5 Physically disabled
☐ 6 Multiple persons involved

☐ Age was a factor

Estimated Age of Person Involved

☐ 1 Male ☐ 2 Female

F EQUIPMENT INVOLVED IN IGNITION ☐ None > Skip to G

Equipment Involved in Ignition | Brand | Model | Serial Number | Year

Equipment Power Source

PORTABILITY: ☐ 1 Portable ☐ 2 Stationary

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

Massachusetts Fire Incident Reporting System – Fire

FDID #: _____ Incident Number *: _____

G **SUPPRESSION FACTORS** ☐ None

Suppression Factor 1

Suppression Factor 2

Suppression Factor 3

H **MOBILE PROPERTY INVOLVED** ☐ None

☐ Not Involved in Ignition, but Burned
☐ Involved in Ignition, but did not Burn
☐ Involved in Ignition AND Burned

Mobile Property Type

Mobile Property Make

☐ **CAR STOLEN**

Model Year

Plate: State:

VIN #:

I **STRUCTURE TYPE ***

If fire was in an enclosed building (1) or a portable/mobile structure (2) complete the rest of this form

BUILDING FIRE SECTION

I **BUILDING STATUS ***

☐ 1 Under Construction
☐ 2 Occupied and Operating
☐ 3 Idle, Not Routinely Used
☐ 4 Under Major Renovation
☐ 5 Vacant & Secured
☐ 6 Vacant & Unsecured
☐ 7 Being Demolished
☐ 0 Other
☐ U Undetermined

BUILDING HEIGHT *

Total # of Stories at or Above Grade

Total # of Stories Below Grade

MAIN FLOOR SIZE *

Total Square Feet OR

Length in Feet BY Width in Feet X

J **FIRE ORIGIN ***

Story of Fire Origin

☐ below grade

FIRE SPREAD

☐ 2 Confined to Room of Origin
☐ 3 Confined to Floor of Origin
☐ 4 Confined to Building of Origin
☐ 5 Beyond Building of Origin

 # STORIES DAMAGED BY FLAME

# of Stories w/ Minor Damage (1-24% flame damage)

# of Stories w/ Significant Damage (25-49% flame damage)

# of Stories w/ Heavy Damage (50-74% flame damage)

# of Stories w/ Extreme Damage (75-100% flame damage)

K **MATERIAL CONTRIBUTING MOST TO FLAME SPREAD**

☐ If No Flame Spread, or same as material first ignited OR unable to determine > Skip to section L

Item Contributing Most to Flame Spread

Type of Material Contributing Most to Flame Spread

L **DETECTORS ***

In Area of the Fire
☐ N None Present > Go to M
☐ 1 Present
☐ U Undetermined

DETECTOR TYPE

☐ 1 Smoke
☐ 2 Heat
☐ 3 Combination Smoke/Heat
☐ 4 Sprinkler, Water Flow Detection
☐ 5 More than 1 Type Present
☐ 6 Other
☐ U Undetermined

POWER SUPPLY

☐ 1 Battery Only
☐ 2 Hardwire Only
☐ 3 Plug-in
☐ 4 Hardwire w/Battery
☐ 5 Plug-in w/ Battery
☐ 6 Mechanical
☐ 7 Multiple Power Supplies
☐ 0 Other
☐ U Undetermined

DETECTORS OPERATION

☐ 1 Fire Too Small
☐ 2 Operated
☐ 3 Failed to Operate
☐ U Undetermined

DETECTORS EFFECTIVENESS

☐ 1 Alerted Occupants, Occupants Responded
☐ 2 Occupants Failed to Respond
☐ 3 No Occupants
☐ 4 Failed to Alert Occupants
☐ U Undetermined

DETECTOR FAILURE REASON

Required if detector failed to operate.

M **AUTOMATIC EXTINGUISHING SYSTEMS ***

☐ None Present ☐ Present > Complete Rest of Section M

TYPE
☐ 1 Wet Pipe Sprinkler
☐ 2 Dry Pipe Sprinkler
☐ 3 Other
☐ 4 Dry Chemical System
☐ 5 Foam System
☐ 6 Halogen Type System
☐ 7 CO2 System
☐ 0 Other Special Hazard System
☐ U Undetermined

OPERATION

☐ 1 Operated & Effective
☐ 2 Operated & Not Effective
☐ 3 Fire Too Small to Activate
☐ 4 Failed to Operate
☐ 0 Other
☐ U Undetermined

 # OF HEADS:

# of Sprinkler Heads Operating

FAILURE REASON

☐ 1 System Shut Off
☐ 2 Not Enough Agent Discharged
☐ 3 Agent Did Not Reach Fire
☐ 4 Wrong Type of System
☐ 5 Fire Not in area Protected
☐ 6 System Components Damaged
☐ 7 Lack of Maintenance
☐ 8 Manual Intervention
☐ 9 Other
☐ U Undetermined

The Commonwealth of Massachusetts
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Massachusetts Fire Incident Reporting System – Civilian Fire Casualty

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B

First Name | M/I | Last Name | Suffix | ☐ 1 Male ☐ 2 Female Gender *

C

Casualty Number *

D

Age * ☐ Months (for infants)

OR

Date of Birth MM/DD/YYYY

E RACE

- ☐ 1 White
- ☐ 2 Black
- ☐ 3 Am. Indian, Eskimo
- ☐ 4 Asian
- ☐ 0 Other, multi-racial
- ☐ U Undetermined

ETHNICITY ☐ 1 Hispanic

F AFFILIATION

- ☐ 1 Civilian
- ☐ 2 EMS, not fire department
- ☐ 3 Police
- ☐ 0 Other

G DATE AND TIME OF INJURY (Midnight is 0000)

Date of Injury (MM/DD/YYYY) | Time of Injury

H SEVERITY *

- ☐ 1 Minor
- ☐ 2 Moderate
- ☐ 3 Severe
- ☐ 4 Life threatening
- ☐ 5 Death

I CAUSE OF INJURY

- ☐ 1 Exposed to fire products including flame, heat, smoke, & gas
- ☐ 2 Exposed to 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
- ☐ 8 Overexertion
- ☐ 9 Multiple causes
- ☐ 0 Other
- ☐ U Undetermined

J HUMAN FACTORS CONTRIBUTING TO INJURY

- ☐ 1 Asleep
- ☐ 2 Unconscious
- ☐ 3 Possibly alcohol impaired
- ☐ 4 Possibly other drug impaired
- ☐ 5 Possibly mentally disabled
- ☐ 6 Physically disabled
- ☐ 7 Physically restrained
- ☐ 8 Unattended person

K FACTORS CONTRIBUTING TO INJURY ☐ NONE

Factor 1

Factor 2

Factor 3

L ACTIVITY WHEN INJURED

- ☐ 1 Escaping
- ☐ 2 Rescue attempt
- ☐ 3 Fire control
- ☐ 4 Return to fire before control
- ☐ 5 Return to fire after control
- ☐ 6 Sleeping
- ☐ 7 Unable to act
- ☐ 8 Irrational act
- ☐ 0 Other
- ☐ U Undetermined

M LOCATION AT TIME OF INCIDENT

- ☐ 1 In area of origin and not involved
- ☐ 2 Not in area of origin & not involved
- ☐ 3 Not in area of origin, but involved
- ☐ 4 In area of origin and involved
- ☐ U Undetermined

GENERAL LOCATION AT TIME OF INJURY

- ☐ 1 In area of fire origin (Skip to N)
- ☐ 2 In building, but not in area
- ☐ 3 Outside, but not in area (Skip to M)

Story at Start of Incident | ☐ Below grade

Story Where Injury Occurred | ☐ Below grade

Specific Location at Time of Injury | ☐ Below grade

N PRIMARY APPARENT SYMPTON

- ☐ 01 Smoke only, asphyxiation
- ☐ 11 Burns & smoke inhalation
- ☐ 12 Burns only
- ☐ 21 Cut, laceration
- ☐ 33 Strain or sprain
- ☐ 96 Shock
- ☐ 98 Pain only

Look up code only if symptom is not found above

O PRIMARY AREA OF BODY INJURED

- ☐ 1 Head
- ☐ 2 Neck and shoulder
- ☐ 3 Thorax
- ☐ 4 Abdomen
- ☐ 5 Spine
- ☐ 6 Upper extremities
- ☐ 7 Lower extremities
- ☐ 8 Internal
- ☐ 9 Multiple body parts

P DISPOSITION

- ☐ Transported to emergency care facility

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Massachusetts Fire Incident Reporting System – Fire Service Casualty

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B

First Name | M/I | Last Name | Suffix | ☐ Male ☐ Female Gender * | Career

C

Casualty Number *

D

Age * | Date of Birth

E

Date of Injury * | Time of Injury * (Midnight is 0000)

F

Responses

G

USUAL ASSIGNMENT

- ☐ 1 Suppression
- ☐ 2 EMS
- ☐ 3 Prevention
- ☐ 4 Training
- ☐ 5 Maintenance
- ☐ 6 Communications
- ☐ 7 Administration
- ☐ 8 Fire Investigation
- ☐ 0 Other

PHYSICAL CONDITION JUST PRIOR TO INJURY

- ☐ 1 Rested
- ☐ 2 Fatigued
- ☐ 3 Ill or injured
- ☐ 0 Other
- ☐ U Undetermined

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

TAKEN TO

- ☐ 1 Hospital
- ☐ 4 Doctor's office
- ☐ 5 Morgue/funeral home
- ☐ 6 Residence
- ☐ 7 Station or quarters
- ☐ 0 Other
- ☐ N Not transported

ACTIVITY AT TIME OF INJURY

Activity at Time of Injury

H

Primary Apparent Symptom

Primary Area of Body Injured

I

Cause of Injury

Factor Contributing to Injury

Object Involved in Injury ☐ None

J

WHERE INJURY OCCURRED

- ☐ 1 Enroute to FD location
- ☐ 2 At FD location
- ☐ 3 Enroute to incident scene
- ☐ 4 Enroute to medical facility
- ☐ 5 At scene in structure
- ☐ 6 At scene outside
- ☐ 7 At medical center
- ☐ 8 Returning from incident
- ☐ 9 Returning from med facility
- ☐ 0 Other

VEHICLE TYPE

Complete ONLY if specific location code is > 60

- ☐ 1 Suppression vehicle
- ☐ 2 EMS vehicle
- ☐ 3 Other FD vehicle
- ☐ 4 Non-FD vehicle

STORY WHERE INJURY OCCURRED

☐ Check this box and enter the story if the injury occurred inside or on a structure

Story of Injury ☐ Below grade

Specific Location

K

DID PROTECTIVE EQUIPMENT FAIL AND CONTRIBUTE TO THE INJURY? ☐ Yes ☐ No If Yes:

Item | Problem | Manufacturer

Equipment Sequence #

Model | Serial Number

The Commonwealth of Massachusetts
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Massachusetts Fire Incident Reporting System – Arson / Juvenile Firesetter

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B

Name of Agency Referred to (if any) | Their Case Number | Telephone

Street Address | Their ORI

City | State | Zip Code | Plus 4 | FID | FDID

C CASE STATUS — Status

D Material Availability

E SUSPECTED MOTIVATION FACTORS — Motive 1 | Motive 2 | Motive 3

F APPARENT GROUP INVOLVEMENT — Group 1 | Group 2 | Group 3

G ENTRY METHOD — Entry Method | Extent on Arrival

H INCENDIARY DEVICES — Container | Device | Fuel

I OTHER INVESTIGATION INFO — Other Investigative Information (multiple selections)

J PROPERTY OWNERSHIP — Ownership

K Initial Observations (multiple selections)

L Labs Used (multiple selections)

☐ **JUVENILE FIRESETTER**

Subject # * | Age | OR | Date of Birth | Motivation/Risk Factors (List up to 3)

Race | Ethnicity | Disposition

☐ 1 Male
☐ 2 Female
Gender | Family Type

* **Indicates a required field**

The Commonwealth of Massachusetts
Department of Fire Services – Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

Massachusetts Fire Incident Reporting System – Wildland Fire Report

A

FDID * | State * (MA) | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B

Latitude . | Longitude .

OR

. ☐ North ☐ South | ☐ East ☐ West

Township | Range

Section | Subsection | Meridian

C AREA TYPE *

- ☐ 1 Rural, farms
- ☐ 2 Urban
- ☐ 3 Rural/Urban
- ☐ 4 Urban-wildland interface

D

Cause *

HUMAN FACTORS CONTRIBUTING TO IGNITION

- ☐ None
- ☐ 1 Asleep
- ☐ 2 Possibly impaired
- ☐ 3 Unattended person
- ☐ 4 Possibly mentally disabled
- ☐ 5 Physically disabled
- ☐ 6 Multiple persons involved
- ☐ 7 Age was a factor

IGNITION FACTORS (Max. 2)

Ignition Factor 1 | Ignition Factor 2

FIRE SUPPRESSION FACTORS (Max. 3)

Supp. Factor 1 | Supp. Factor 2 | Supp. Factor 3

E

Heat source

F

Mobil Prop Type

G

Equipment

H

A. Weather Station | C. Wind Direction | E. Air Temp | Fuel Moisture

B. Type | D. Wind Speed | Rel. Humidity | Fire Danger Rating

I

NUMBER OF BUILDINGS IGNITED

☐ None

Number of Buildings Ignited

TOTAL ACRES BURNED *

, , .

Estimated number of acres burned

NUMBER OF BUILDINGS THREATENED

☐ None

Number of Buildings Threatened

PRIMARY CROPS BURNED

Crop 1 | Crop 2 | Crop 3

J PROPERTY MANAGEMENT Enter % total acres burned by ownership

%	%	%	%
Undetermined	City	Federal	Military
%	%	%	%
Tax Paying	County	Agency	Other
%	%	%	
Non Tax Paying	State	Foreign	

K

NFDRS Model

L PERSON RESPONSIBLE FOR FIRE

- ☐ 1 Identified person caused fire
- ☐ 2 Unidentified person caused fire
- ☐ 3 Fire not caused by person

☐ Male ☐ Female

M RIGHT OF WAY

ft. | | | | | |

From ROW | Type of ROW | Activity of Person | Age | Date of Birth

N FIRE BEHAVIOR

ft.			ft.	CH/HR
Elevation	Position onSlope	Aspect	Flame Length	Spread Rate

The Commonwealth of Massachusetts
Department of Fire Services – Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

Massachusetts Fire Incident Reporting System – Hazmat

A

FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * | ☐ Delete ☐ Change

B

UN No. | DOT Class | Cas Reg No. | Chemical Name *

C CONTAINER

Type | Est. Capacity by vol. or weight (, ,)

VOLUME (check 1)
- ☐ 11 Ounces
- ☐ 12 Gallons
- ☐ 13 Barrels: 42 gal.
- ☐ 14 Liters
- ☐ 15 Cubic feet
- ☐ 16 Cubic meters

WEIGHT (check 1)
- ☐ 21 Ounces
- ☐ 22 Pounds
- ☐ 23 Grams
- ☐ 24 Kilograms

D RELEASED * (, ,)

Est. Amount Released by vol. or weight

VOLUME (check 1)
- ☐ 11 Ounces
- ☐ 12 Gallons
- ☐ 13 Barrels: 42 gal.
- ☐ 14 Liters
- ☐ 15 Cubic feet
- ☐ 16 Cubic meters

WEIGHT (check 1)
- ☐ 21 Ounces
- ☐ 22 Pounds
- ☐ 23 Grams
- ☐ 24 Kilograms

E PHYSICAL STATE WHEN RELEASED
- ☐ 1 Solid
- ☐ 2 Liquid
- ☐ 3 Gas
- ☐ U Undetermined

Released into

F RELEASED FROM
- ☐ Below Grade
- ☐ Inside/On Structure ___ Story of release
- ☐ Outside

POPULATION DENSITY
- ☐ 1 Urban
- ☐ 2 Suburban
- ☐ 3 Rural

G

AREA AFFECTED
- ☐ 1 Square feet
- ☐ 2 Blocks
- ☐ 3 Square Miles

Enter measurement (,)

AREA EVACUATED ☐ None
- ☐ 1 Square feet
- ☐ 2 Blocks
- ☐ 3 Square Miles

Enter measurement (,)

EST. NUMBER OF PEOPLE EVACUATED (,)

EST. NUMBER OF BUILDINGS EVACUATED (,) ☐ None

H HAZMAT ACTIONS TAKEN

Primary Action #1 | Additional Action #2

Additional Action #3 | Tier Level | Entry Count | Suit/PPE Level

I IF FIRE/EXPLOSION INVOLVED, WHICH OCCURRED FIRST
- ☐ 1 Ignition
- ☐ 2 Release
- ☐ U Undetermined

J CAUSE OF RELEASE *
- ☐ 1 Intentional
- ☐ 2 Unintentional release
- ☐ 3 Container/containment failure
- ☐ 4 Act of nature
- ☐ 5 Cause under investigation
- ☐ U Cause undetermined after investigation

K FACTORS CONTRIBUTING TO RELEASE

Factor contributing to release (1)

Factor contributing to release (2)

Factor contributing to release (3)

L FACTORS AFFECTING MITIGATION

Factor or impediment (1)

Factor or impediment (2)

Factor or impediment (3)

Massachusetts Fire Incident Reporting System – Hazmat

FDID #: _____ Incident Number *: _____

M **EQUIPMENT INVOLVED IN RELEASE** ☐ None

Equipment involved in release

Brand

Model

Serial Number

Year

N **MOBILE PROPERTY INVOLVED IN RELEASE** ☐ None

Mobil Property Type

Mobil Property Make

Model | Year

License Plate Number | State

DOT Number/ICC Number

O **HAZMAT DISPOSITION***

- ☐ 1 Completed by fire service only
- ☐ 2 Completed w/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

P **HAZMAT CIVILIAN CASUALTIES**

Deaths | Injuries

The Commonwealth of Massachusetts
Department of Fire Services – Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

Massachusetts Fire Incident Reporting System – EMS Casualty

A FDID * | State * | Incident Date * | Station | Incident Number * | Exposure * ☐ Delete ☐ Change

B Number of Patients | Patient Number *

C ☐ same as alarm date — Arrived at Patient

☐ same as alarm date — Transfer Patient

D Provider Impression/Assessment *

E Age | ☐ Months (for infants) | ☐ 1 Male ☐ 2 Female Gender

Date of Birth

F RACE
- ☐ 1 White
- ☐ 2 Black
- ☐ 3 Am. Indian, Eskimo
- ☐ 4 Asian
- ☐ 0 Other, multi-racial
- ☐ U Undetermined

ETHNICITY ☐ Hispanic

G HUMAN FACTORS ☐ None
- ☐ 1 Asleep
- ☐ 2 Unconscious
- ☐ 3 Possibly alcohol impaired
- ☐ 4 Possibly other drug impaired
- ☐ 5 Possibly mentally disabled
- ☐ 6 Physically disabled
- ☐ 7 Physically restrained
- ☐ 8 Unattended person
- ☐ N None

OTHER FACTORS

If an illness, not an injury, skip to Section H
Cause of illness/injury
- ☐ 1 Accidental
- ☐ 2 Self-inflicted
- ☐ 3 Inflicted. Not self
- ☐ N None

H BODY SITE OF INJURY

Site #1 | Site #2 | Site #3

INJURY TYPE

Type #1 | Type #2 | Type #3

CAUSE OF ILLNESS/INJURY

Cause of illness/injury

I Procedures Used (multiple selections)

J SAFETY EQUIPMENT
- ☐ 1 Safety/seat belts
- ☐ 2 Child safety seat
- ☐ 3 Airbag
- ☐ 4 Helmut
- ☐ 5 Protective clothing
- ☐ 6 Flotation device
- ☐ N None
- ☐ 0 Other
- ☐ U Undetermined

K CARDIAC ARREST

☐ 1 Pre-arrival arrest?

If pre-arrival arresst was it?
- ☐ 1 Witnessed
- ☐ 2 Bystander CPR

2 ☐ Post-arrival arrest?

INITIAL ARREST RHYTHM
- ☐ 1 V-Fib/V-Tach
- ☐ 0 Other
- ☐ U Undetermined

L LEVEL OF PROVIDER *

Initial level of provider

Highest level of provider on scene

M PATIENT STATUS
- ☐ 1 Improved
- ☐ 2 Remained same
- ☐ 3 Worsened

Check if: 1 ☐ Pulse on Transfer

N DISPOSITION
- ☐ 1 FD transport to ECF
- ☐ 2 Non-FD transport
- ☐ 3 Non-FD trans/FD attend
- ☐ 4 Non-emergency transfer
- ☐ 0 Other
- ☐ N Not transported

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Department of Fire Services – Office of the State Fire Marshal

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Massachusetts Fire Incident Reporting System – Supplemental

FDID #: _____ Incident Number *: _____

K **PERSON/ENTITY INVOLVED** ☐ Check this box if same address as incident location. Then skip three duplicate address lines. ☐ More people involved? Attach additional forms.

Business Name (if applicable) | Area Code | Phone Number

Mr./Mrs./Ms. | First Name | M/I | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City | State | Zip Code

Insurance Company | Total Insurance

K **PERSON/ENTITY INVOLVED** ☐ Check this box if same address as incident location. Then skip three duplicate address lines. ☐ More people involved? Attach additional forms.

Business name (if applicable) | Area Code | Phone Number

Mr./Mrs./Ms. | First Name | M/I | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City | State | Zip Code

Insurance Company | Total Insurance

The Commonwealth of Massachusetts
Department of Fire Services
Office of the State Fire Marshal
P.O. Box 1025, State Road, Stow, Massachusetts 01775

FP-33C
(Rev. 05-2010)

Burned/Recovered Motor Vehicle Report

Fire Department: _____ FDID#: _____

Fire Department Response: ❒ No ❒ Yes Incident Number: _____ Date: _____

This report must be completed fully in accordance with M.G.L. c. 175, § 113O; and M.G.L. c. 266, § 29 B.

I hereby report to the above named Fire Department that the following motor vehicle was burned in the City/Town of

_____ .

Owned by: _____
Last First Middle

_____
Address City/Town/State Phone Number

Reported by: _____
Last First Middle

_____
Address City/Town/State Phone Number

Location of Fire: _____
Street City/Town Date/Time of Fire

Motor Vehicle: _____
Year Make Model Body Style Color

_____
Registration Number State Vehicle Identification Number

Was the Vehicle Registered? ❒ Yes ❒ No Keys in the Vehicle? ❒ Yes ❒ No Doors Locked? ❒ Yes ❒ No

Fire Insurance Coverage? ❒ Yes ❒ No _____
Insurance Agent Insurance Company

Further Information will be required by the Fire Department Form FP-33D

Oath of Affirmation

I hereby swear or affirm under penalty of perjury, that the information I have provided herein is truthful and correct.

To be signed by the owner of record _____

Do not write below these lines – Fire Authority only.

Name of Person Taking Report: _____
Name Date/Time

Stolen Report Made? ❒ Yes ❒ No _____
Where Date/Time

All data elements must be answered – Print Legibly
White copy – Fire Authority; Pink copy – Division of Fire Safety; Yellow copy – Owner/Operator

The Commonwealth of Massachusetts
Department of Public Safety
Office of the State Fire Marshal
P.O. Box 1025 - State Road, Stow, MA 01775

Form FP-33D
(rev. 10/98)

Motor Vehicle Fire Report

Fire Department: _____ FDID#: _____

Incident Number: _____ Date of Fire: _____

Owner Information

Owner's Name _____
Last First MI

Address _____
City/Town State Zip

Date of Birth _____ S.S.# _____

Phone ( ) _____ Bus. Phone # _____

License # _____ Exp. Date _____

Occupation _____

Vehicle Information

Vehicle Make _____ Model _____ Year _____

Color _____ V.I.N _____

Reg # _____ State _____

General Condition of Vehicle _____ Cond. of Tires _____

Type of Tires _____ Cond. of Engine _____

Cond. of Transmission _____ Mileage _____

Optional Equipment _____

Repairs made in Last Year _____ Where _____

Inspection Sticker Issued at _____
City Date

How Many Sets of Keys? _____ How Many Sets of Keys Shown? _____

Where at the Time of Loss? _____ Where are Keys Now? _____

Insurance Information

Ins. Co. _____ How Long? _____

Coverage: ☐ Fire ☐ Theft ☐ Collision

Previous Insurance Company _____

Where Purchased? _____ City _____

Date _____ Price _____

Lienholder _____ City _____

Monthly Payment _____ Date of Last Payment _____ Current Balance _____

Signed Under Penalty of Perjury _____

over

Vehicle Security

Was Vehicle Locked? _____ Any Keys Hidden on Vehicle? _____

Alarm System ☐ On ☐ Off Security System set? ☐ Yes ☐ No

Store any Flammable Liquids? ☐ Yes ☐ No _____ What? _____

Where? _____ Contents: _____

If claiming contents on homeowners insurance policy, Company _____

Was Vehicle Stolen? ☐ Yes ☐ No Was Theft Reported? ☐ Yes ☐ No

Address Where Stolen from _____
City/Town State Zip

Reason Vehicle Parked at Above Location _____

When was Vehicle Parked / in Motion _____

Date _____ Time _____ ☐ AM ☐ PM

Passenger Information

Was Anyone with You at the Time? ☐ Yes ☐ No

Person #1 Name _____
Last First M

Address _____
City/Town State Zip

Telephone _____

Person #2 Name _____
Last First M

Address _____
City/Town State Zip

Incident Details

When was Vehicle Last Seen? _____

Date _____ Time _____ ☐ AM ☐ PM

By whom? _____ Time _____ ☐ AM ☐ PM

When Did You Discover Vehicle Burned / Missing? _____

Date _____ Time _____ ☐ AM ☐ PM

What Action Did You Take When You Discovered Vehicle Burned / Missing? _____

Have You Been Notified that Vehicle is Recovered? ☐ Yes ☐ No

Who Notified You? _____ How? _____ When? _____

Have You Had any Previous Insurance Claims for this or any Other Vehicle Within the Past Five (5) Years? ☐ Yes ☐ No

When? _____

Type of Claim? _____ Insurance Co.? _____

OATH OR AFFIRMATION

I hereby swear or affirm under penalty or perjury, that the information I have provided herein is truthful and correct.

To be signed by owner of record _____ Date _____

FP-33C/D Burned Recovered Motor Vehicle Report

1. This report must be completed fully in accordance with M.G.L. Ch. 175 Sec. 113O and M.G.L. Ch. 266 Sec. 29B.
   - This report is separate from your MFIRS report.
2. The law requires owners of burned motor vehicles to complete and sign an FP-33C, which must also be signed by a fire official from the department in the community where the fire occurred.
3. All spaces on Form FP-33C must be completed by the owner of the vehicle.
4. If a vehicle owner does not have all of the information required, he/she must obtain that information needed to complete the form.
5. All entries must be legible and clearly transferred to the pink copy.
6. If there was no fire department response, and the owner requests a Form FP-33C, one must be completed.
   - On the old forms, enter: 'No Fire Department Response' instead of an incident number.
   - On the newer forms, check the 'No' box beside Fire Department Response.
7. To be 'Valid' the OWNER and the FIRE AUTHORITY taking the report must sign in the spaces provided.
   - The Fire Authority is the jurisdiction in which the fire occurred.
8. The completed white copy remains with the Fire Department for their records. The yellow copy is given to the vehicle owner. Send the pink copy to the Office of the State Fire Marshal.
   - Photocopies are not 'Valid'.
9. Form FP-33D, if completed, remains with the Fire Authority for investigative purposes. Insurance company investigators may obtain a copy of this form.
   - This form is for local use only as an investigative tool.
10. Form FP-33D is not to be given to the vehicle owner.
11. Only Massachusetts registered vehicles require Forms FP-33C/D.
12. If the burned vehicle is NOT covered by Fire/Theft insurance, the owner is not required to complete Forms FP-33C/D.