

SECTION III

Incident Form --NFIRS-1

The top section, COMPLETE ON ALL INCIDENTS, will be discussed first. This section is to be completed each time a fire service unit moves in response to an alarm of any type. Many alarms require completing only this part of the form. The section consists of lines A through H and is shown below. The Information will be discussed one line at a time.

INCIDENT REPORT

NFIRS 1

FILL IN THIS REPORT
IN YOUR OWN WORDS

_____ FIRE DEPARTMENT

1 DELETE
2 CHANGE

	FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE	
B	TYPE OF SITUATION FOUND						TYPE OF ACTION TAKEN			MUTUAL AID 1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN	
C	FIXED PROPERTY USE						IGNITION FACTOR				
D	CORRECT ADDRESS							ZIP CODE		CENSUS TRACT	
E	OCCUPANT NAME (LAST, FIRST, MI)							TELEPHONE		ROOM OR APT.	
F	OWNER NAME (LAST, FIRST, MI)				ADDRESS				TELEPHONE		
G	METHOD OF ALARM FROM PUBLIC						DISTRICT		SHIFT		NO. ALARMS
H	NUMBER FIRE SERVICE PERSONNEL RESPONDED			NUMBER ENGINES RESPONDED			NUMBER AERIAL APPARATUS RESPONDED			NUMBER OTHER VEHICLES RESPONDED	

COMPLETE FOR ALL
INCIDENTS

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INCIDENT REPORT

NFIRS 1

FILL IN THIS REPORT
IN YOUR OWN WORDS

_____ FIRE DEPARTMENT

1 DELETE
2 CHANGE

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE

The name of the fire department is entered on the line at the top of the form. Each individual incident must be identified by the following elements from line A: fire department identification, incident number and exposure number. The remaining entries on the line, also needed for each incident but not part of the identification, include date, day of the week, alarm time, arrival time, time in service, and delete/change.

Fire Department Identification (FDID)

Definition

A unique number assigned by the state which identifies a particular fire department within the state. This number may also identify the county, fire district, or other jurisdiction in which that fire department is located. Most states use the two left-most digits to identify these jurisdictions within the state, and use the remaining digits to identify the particular department within the jurisdiction. The number must not exceed five digits.

Purpose

The fire department identification number (FDID) provides a means of identifying the incident data which has been collected and reported by each individual department. Specific feedback on local fire experience can then be prepared and sent to individual fire departments.

Entry

Enter the state-assigned fire department identification number.

Example

An FDID number of 07434 would be entered:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
07434									

Incident Number

Definition

A unique number assigned to an incident so that no two incidents attended by a fire department within the same calendar year will have the same number.

Purpose

This number will be used to identify a particular incident. You cannot always rely on the date and time of the incident, because there are sometimes multiple incidents at the same time.

Entry

Enter the number assigned to the incident. The number may be assigned at the local, county, district, or state level, depending on policies. Where independent fire departments function under a county or district concept, for fire suppression purposes, the incident number could be assigned at that level. It may be necessary to obtain this number from an alarm or dispatch center.

Example

The 471 incident would be entered.

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
	010104711								

Exposure Number

Definition

EXPOSURE FIRE: A fire in a building, structure or vehicle resulting from a fire outside that building, structure or vehicle, or a fire that extends to an outside property from a building, structure or vehicle. Where fire involves more than one building, each building fire shall be considered a separate fire, with the ignition for all but the original building fire classified as "exposure fires." If the building fire ignites a truck parked nearby but outside the building, the truck fire is an exposure fire. If the truck was parked inside the building and is damaged by a fire which started elsewhere in the building, the truck is regarded as part of the building contents rather than as a separate exposure fire. Each exposure fire is coded as a separate fire with all causal factors coded to pertain specifically to each exposure.

Purpose

While the incident number permits all property involved in a single fire incident to be related together, the exposure number identifies each separate property involved in the fire. This makes it possible to enter the specific details of each exposure fire into the system, and, if necessary, to relate all the exposures to the basic incident.

The exposure number also allows an accurate, verifiable count of the number of properties involved in a large fire. It also provides a means of accurately locating where casualties have occurred.

Entry

In a fire involving exposures, an additional incident report form should be submitted for each exposure. Each report form submitted 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 "00," while exposures are numbered sequentially beginning with "01." Note: Treat similar items in a group as a single exposure (such as a fleet of cars).

Examples

The original incident would be entered as:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
		010							

The first exposure would be entered as:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
		011							

Calendar Date: Month, Day, Year

Definition

The month, day, and year when the alarm was received by the fire department.

Purpose

This entry is needed to analyze the time patterns of different types of incidents. This assists in targeting prevention and suppression programs. The entry also provides a basis for legal reference to a specific event.

Entry

For each incident, enter:

a. The month using its numerical designation.

01 = January
02 = February
03 = March
04 = April

05 = May
06 = June
07 = July
08 = August

09 = September
10 = October
11 = November
12 = December

b. The day of the month.

c. The last two digits of the year.

Example:

An alarm received on July 4, 1983, would be entered:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
			07	04	83				

Day of Week

Definition

The day of the week the alarm was received and the identification.

Purpose

The data element can be used to analyze fire problems based on social trends.

Entry

Enter the day of the week when the incident occurred as a word, and code each day using the following table.

1 = Sunday	5 = Thursday
2 = Monday	6 = Friday
3 = Tuesday	7 = Saturday
4 = Wednesday	

Example

An incident occurring on Monday would be entered:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
						Monday	2		

Alarm Time

Definition

The exact time of day (hour and minute) when the alarm was received by the fire department alarm center. The 24-hour clock is used here (0001-2400). This is not an elapsed time.

Purpose

The time of the alarm is important for three reasons: (1) as a legal requirement for recording the precise time of the incident, (2) as information for determining the frequency of particular types of incidents by time period, and (3) as the starting time for going into action on an incident, which can then be compared with Arrival Time, to determine the length of time necessary to arrive at an incident and "Time in Service" to determine the total amount of time spent at the incident scene.

Entry

Enter the time to the nearest minute when the original alarm was received by the fire department alarm center. Use the 24-hour clock system.

1:06 a.m. = 0106
 1:20 p.m. = 1320
 12:00 Midnight = 2400
 12:01 a.m. = 0001

Example

An alarm received at 2:56 p.m. would be entered:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
							1456		

Arrival Time

Definition

The actual clock time when the first responding units arrived at the incident scene. The 24-hour clock (0001-2400) is also used here. This is not an elapsed time.

Purpose

The time that responding units arrive at the scene is valuable to department management because it reflects the actual time spent in traveling to the scene of the incident. It is useful in determining the actual time spent at an incident and would indicate any delay between alarm and arrival.

Entry

Enter the time to the nearest minute when the first responding unit arrives at the scene. Use the 24-hour clock system.

Example

The arrival time of the first fire apparatus at 3:00 p.m. would be entered:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
								1500	

Time in Service

Definition

Each reporting fire department can use its own operational definition for "time in service." It usually is defined as the time when all or most of the equipment is again ready for response to another alarm as determined by the officer in charge at the scene. If one fire company is left at the scene as a "fire watch" for a considerable period of time beyond the "in-service" time of other participating companies, record the activities of this company separately in the Remarks section. The 24-hour clock (0001-2400) is also used here. This is not an elapsed time.

Purpose

This time element is necessary along with Arrival Time for calculating the total time spent on the incident which is useful for determining staffing requirements and equipment needs.

Entry

Enter the "time in service" as defined by the local fire department and recorded at the alarm center. Use the 24-hour clock system.

Example

If the units were placed back in service at 3:45 p.m., it would be recorded as:

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
									115415

Delete/Change

Definition

This box is used to indicate a change to information submitted on a previous incident report or to indicate the deletion of an erroneous report. These changes or deletions should be authorized by the officer who signed the original incident report.

Purpose

The purpose of the delete/change entry is to correct previously reported information.

Entry

1. A New Incident (ADD).

If the incident report being completed is a new report, leave this box blank and complete the incident report as instructed in this manual.

2. Updating a Previously Submitted Incident (CHANGE).

If new or updated information becomes available on a previously submitted incident, it is possible to update the original incident report information by submitting a "Change" incident report. Any item (Except FDID, Incident Number or Exposure Number) can be updated. To submit a change:

- Enter the same FDID, Incident Number and Exposure Number of the Incident Report you want to change;
- Check or "X" the Change box;
- Enter the new or updated information and appropriate code numbers;
- Sign and date the report (Line U). Normally a change report should be signed by the officer in charge of the incident; and
- Forward the report according to your normally established procedures.

3. Cancelling a Previously Submitted Incident (DELETE).

If a previously submitted Incident Report was erroneously submitted, or if it contains errors in the FDID, Incident Number or Exposure number fields, it may be necessary to delete the incorrect incident from the computer. To submit a delete report:

- Enter the same FDID, Incident Number and Exposure Number of the Incident Report you want to delete;
- Check or "X" the Delete box;
- Sign and date the report (Line U). Normally a delete report should be signed by the officer in charge of the incident; and
- Forward the report according to your normally established procedures.

If you are deleting an erroneous incident report, you must also complete a new incident report (and accompanying casualty reports, if any) and submit it to replace the report deleted.

Some states may have restrictions on who may delete an incident or casualty report. Additional verification may be required before a delete report will be processed by a state.

Examples

To delete a previous incident report, the delete box would be marked and FDID through Exposure Number would be completed identically to the incident being deleted.

NFIRS 1

1 DELETE
2 CHANGE

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
3 5 0 2 2	0 0 0 1 1 2	0 0							

A CHANGE REPORT:

It was erroneously reported that nine firefighters responded to a fire incident. Later, the officer in charge corrected the information and sent in a change report with thirteen fire service personnel responding.

The change box is marked and lines A-H would look similar to the following example:

NFIRS 1

1 DELETE
2 CHANGE

FILL IN THIS REPORT
IN YOUR OWN WORDS

FDID	INCIDENT NO	EXP. NO.	MO	DAY	YEAR	DAY OF WEEK	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
3 5 0 2 2	0 0 0 0 5 2	0 0							
TYPE OF SITUATION FOUND						TYPE OF ACTION TAKEN			MUTUAL AID 1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN
FIXED PROPERTY USE						IGNITION FACTOR			
CORRECT ADDRESS							ZIP CODE	CENSUS TRACT	
OCCUPANT NAME (LAST, FIRST, MI)						TELEPHONE		ROOM OR APT.	
OWNER NAME (LAST, FIRST, MI)				ADDRESS				TELEPHONE	
METHOD OF ALARM FROM PUBLIC						DISTRICT	SHIFT	NO. ALARMS	
NUMBER FIRE SERVICE PERSONNEL RESPONDED			NUMBER ENGINES RESPONDED			NUMBER AERIAL APPARATUS RESPONDED		NUMBER OTHER VEHICLES RESPONDED	
0 1 3									

COMPLETE FOR
INCIDENTS

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
			1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

Type of Situation Found

Definition

A statement of the observed condition(s) when the first emergency unit arrived on the scene. An investigation may reveal that the situation at the scene changed from the time the alarm was given to the time the first emergency unit arrived. For example, a roast in the oven ignites, filling the house with smoke and causing a fire to be reported. Even though the lady of the house removed the roast from the house prior to the fire fighters' arrival and there is no fire damage, a structural fire would be reported.

Purpose

This data element is used to identify the various types of incidents to which the fire department responds. The element can be used in analyzing the frequency of different types of fires, emergencies, and other problems that the fire department is called to attend in a community. The element is one of the most important items on the incident report as it identifies the specific type of incident.

Entry

Record the situation with which the fire department dealt upon arrival at the incident or the most serious condition that developed after arrival on the scene. Broad examples might include: a fire, overpressure rupture, rescue call, hazardous condition, service call, good intent call where the individual who made the call made an honest mistake, or a false call. However, be more explicit in stating the exact situation found. Indicate the type of fire or other incident condition in specific terms. Details of the change in situation after arrival on the scene should be included in the Remarks section. Note that the situation found is to be described as a "fire" if there is uncontrolled burning (combustion), regardless of whether there is any dollar loss. An entry is required for this element on all incidents.

Examples

A house fire.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
	House Fire		1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

A false alarm at a nursing home because of alarm malfunction.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
	Alarm Malfunction		1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

Codes © NFPA 1976

TYPE OF SITUATION FOUND

1. FIRE, EXPLOSION

Included are fires out on arrival. Excluded are unauthorized burning (56) and controlled burning (63).

11. Structure fire.

Included are any fires inside a building or structure whether or not there was structural damage to the building.

12. Outside of structure fire (not included in 13,

14, or 15 below). Included are yard storage, crops, and any fire outside a structure where the material burning has a value.

13. Vehicle fire.

14. Trees, brush, grass fire.

15. Refuse fire.

Included are hostile fires outside a building where the material burning has no value.

16. Explosion, no after-fire.

- 17. Outside spill, leak with ensuing fire.
- 19. Fire, Explosion not classified above.
- 10. Fire, Explosion; insufficient information available to classify further.
- 2. OVERPRESSURE RUPTURE (no combustion)**
- 21. Steam rupture
Excluded is steam mistaken for smoke when the steam is being released from a normal vent or relief valve (65).
- 22 Air, gas rupture.
- 29. Overpressure Rupture not classified above.
- 20. Overpressure Rupture; insufficient information available to classify further.
- 3. RESCUE CALL**
- 31. Inhalator call.
- 32. Emergency medical call.
Included are checking for injuries, treatment for shock, and the like.
- 33. Lock-in.
- 34. Search.
- 35. Extrication.
Included are removal of persons from vehicles, elevators, and the like.
- 39. Rescue call not classified above.
- 30. Rescue Call; insufficient information available to classify further.
- 4. HAZARDOUS CONDITION, STANDBY**
Included are potential accidents.
- 41. Spill, leak with no ignition.
Included are gas leaks and gasoline spills.
- 42. Explosive, bomb removal.
- 43. Excessive heat.
- 44. Power line down.
- 45. Arcing, shorted electrical equipment.
Included are incidents where disconnection of the electrical energy clears the emergency. Excluded are emergencies where there is a sustained fire after the electrical energy has been disconnected (division 1).
- 46. Aircraft standby.
- 47. Chemical emergency.
Included are chemical spills and radiation leaks.
- 49. Hazardous Condition, Standby not classified above.
- 40. Hazardous Condition, Standby; insufficient information available to classify further.

- 5. SERVICE CALL**
- 51. Lock-out.
- 52. Water evacuation.
- 53. Smoke, odor removal.
- 54. Animal rescue.
- 55. Assist police.
- 56. Unauthorized burning.
Included are fires that are under control and not endangering property. Excluded are fires where burning is authorized and under control (63).
- 57. Cover assignment, standby at fire station, move-up.
- 59. Service Call not classified above.
- 50. Service Call; insufficient information available to classify further.
- 6. GOOD INTENT CALL**
- 61. Smoke scare.
Included are calls where actual smoke or odor are present.
- 62. Wrong location.
- 63. Controlled burning.
Included are fires where burning is authorized and under control.
- 64. Vicinity alarm.
Included are separate locations reported for an actual fire and multiple boxes pulled for one fire.
- 65. Steam, other gas mistaken for smoke.
- 69. Good Intent Call not classified above.
- 60. Good Intent Call; insufficient information available to classify further.
- 7. FALSE CALL**
- 71. Malicious, mischievous false call.
- 72. Bomb scare, no bomb.
- 73. System malfunction.
- 74. Unintentional.
Included are tripping an interior device accidentally, running a drain test without knowledge of the alarm connection, and the like.
- 79 False Call not classified above.
- 70. False Call; insufficient information available to classify further.
- 9. OTHER SITUATION FOUND**
- 99. Type of Situation Found not classified above.

Coded Examples

A house fire.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
	House Fire	1 1	1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

A false alarm at a nursing home because of alarm malfunction.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
	Alarm Malfunction	1713	1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

Type of Action Taken

Definition

The duties performed at the emergency scene by the responding fire department personnel. For example, action may include extinguishing a fire, providing first aid, or investigating a reported situation.

Purpose

The action taken at a given emergency may be compared to the type of situation found. These two data elements are the starting point for analysis of the action(s) necessary to effectively handle the range of emergency situations a fire department encounters. This information also provides some indication of the specific type of service required of the fire department.

Entry

Record the basic action taken by the responding fire department personnel to handle the incident. Specific actions may include: extinguishing fires, investigating the source of the alarm, providing first aid, 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. If more than one listed activity was performed at the incident, use the action and code which describe the primary action undertaken.

Examples

The fire department extinguished the fire.

3	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
		Put out fire	1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

The fire department gave first aid to an auto accident victim.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
		Treated arm of auto accident victim	1 <input type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

Codes © NFPA 1976

TYPE OF ACTION TAKEN

1. Extinguishment.
Included are whatever other actions have to be taken, such as rescue, ventilation, overhaul, and the like.
2. Rescue only.
Included are first aid, inhalator or resuscitator use, and the like.
Excluded are calls for ambulance service (7).
3. Investigation only.
Included are calls where the fire is out on arrival and false alarms.

4. Remove hazard.
Included are washing down spills, shutting off utilities, and the like.
5. Standby.
6. Salvage.
7. Ambulance service.
Included are necessary medical treatment before and during the transport.
8. Fill in, move up, transfer.
9. Type of Action Taken not classified above.
Included are calls where all apparatus is placed in service before arrival at the incident.
0. Type of Action Taken undetermined or not reported.

Coded Examples

The fire department extinguished the fire.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
		Put out fire	1 <input checked="" type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

The fire department gave first aid to an auto accident victim.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
		Treated arm of auto accident victim	1 <input type="checkbox"/> REC'D 2 <input checked="" type="checkbox"/> GIVEN

Mutual Aid

Definition

No Mutual Aid: A Fire Department handles an incident within their jurisdiction with no help from adjacent or outside fire departments.

Mutual Aid Received: A Fire Department handles an incident within their jurisdiction with additional manpower or equipment from one or more fire departments outside their jurisdiction.

Mutual Aid Given: A Fire Department responds to 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.

Purpose

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

Entry

Check the appropriate box, if mutual aid is received or given. There are several variations which the mutual aid entry may take. How and by whom the incident and casualty forms are completed are often dictated by local or State policies. Cooperation among the fire departments receiving and giving mutual aid is essential in sharing and recording the incident and casualty information.

Examples

Three examples given below illustrate mutual aid entries. In each of these situations assume that the Avery Fire Department is first due, the incident occurs in its jurisdiction, and that it receives mutual aid. Also, assume that in these situations the Ridgeland Fire Department gives mutual aid.

1. The Ridgeland Fire Department provides mutual aid to the Avery Fire Department in fighting a fire. The entire incident form would be completed by Avery and the "Rec'd." block would be checked in the Mutual Aid entry. The equipment provided by Ridgeland may be listed in the Remarks section, such as, Ridgeland Fire Department: one pumper, one aerial ladder. The Ridgeland Fire Department will complete only the first section of an incident form and will check the "Given" block in the Mutual Aid entry.

A fire department received aid from another department in fighting a fire.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
			<input checked="" type="checkbox"/> REC'D 2 <input type="checkbox"/> GIVEN

2. The Ridgeland Fire Department provides a fill-in or cover service to the Avery Fire Department, but does not go to any calls while covering. Ridgeland will complete the first section of an incident form and check "Given" in the Mutual Aid block. Avery is not required to complete an incident form unless an injury is sustained by Ridgeland.

A fire department sends equipment to a nearby community to "fill-in" for its fire department.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
			1 <input type="checkbox"/> REC'D 2 <input checked="" type="checkbox"/> GIVEN

3. The Ridgeland Fire Department, while providing a fill-in service to the Avery Fire Department, is dispatched to an incident in the Avery jurisdiction where it extinguishes a fire by itself. Ridgeland being dispatched to fight a fire in Avery's area requires that Avery complete an incident report assigning an Avery incident number and "Rec'd." in the Mutual Aid entry. In addition, Avery must account for all casualties resulting from the incident. Much of the information will be provided by the Ridgeland Fire Department. Ridgeland will complete the first section of an incident form, using their own FDID number, assign a Ridgeland incident number and check "Given" in Mutual Aid entry.

A fire department goes to the aid of another in fighting a fire.

B	TYPE OF SITUATION FOUND	TYPE OF ACTION TAKEN	MUTUAL AID
			1 <input type="checkbox"/> REC'D 2 <input checked="" type="checkbox"/> GIVEN

(This page has been intentionally left blank.)

C	FIXED PROPERTY USE	IGNITION FACTOR
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Fixed Property Use

Definition

Each individual piece of property has a specific use, whether it be a structure or an open piece of land. This entry refers to the use of the particular property where the fire occurs, not the overall use of the complex that the property might be a part of. The use may be as a residence, store, recreation facility, or any of a number of other purposes. The intent of this entry is to give the property use and not the configuration of the building or other details of the property. For example, property used for the storage of a product should be identified for that use regardless of whether the storage is inside or outside. Property which is mobile or in transit is reported separately, and the fixed property it is located on at the time is reported in this entry box. If the mobile property is not in transit, indicate its current use. A trailer, for instance, might be described here as a single family home or a construction office.

Purpose

This element permits an analysis of the fire problem by property use. The fire problem is often different for different fixed property uses. Information on the frequency and types of fires for each use can assist in targeting fire prevention and suppression programs for each type of property, ordering priorities among different types of properties, and evaluating the success of programs directed at particular types of properties.

Entry

Describe in your own words the use of the property involved in the incident. Be as specific as possible.

Examples

Fire in a small appliance repair shop, without sales.

C	FIXED PROPERTY USE	IGNITION FACTOR
	U-Fix-It-Shop	

Vehicle fire on an interstate highway.

C	FIXED PROPERTY USE	IGNITION FACTOR
	Vehicle Fire on Freeway	

There are many detailed codes for this entry as shown on the following pages. An alphabetized list can be found in the Appendix.

Codes @ NFPA 1976

FIXED PROPERTY USE

The major divisions (single digit) of the Fixed Property Use classification are:

100-189: Public Assembly Property
 200-249: Educational Property
 300-369: Institutional Property
 400-499: Residential Property
 500-599: Store, Office Property

600-689: Basic Industry, Utility, Defense Property
 700-799: Manufacturing Property
 800-899: Storage Property
 900-989: Special Property

Determining which major division the fixed property falls within will aid in finding the correct subdivision.

1. PUBLIC ASSEMBLY PROPERTY

Places for the congregation or gathering of people for amusement, recreation, social, religious, patriotic, civic, travel, and similar purposes are known as public assembly properties. Such properties are characterized by the presence or potential presence of crowds, with attendant panic hazard in case of fire or other emergency. They are generally open to the public, or may, on occasions, be open to the public. The occupants are present voluntarily and are not ordinarily subject to discipline or control. They are generally able-bodied persons, whose presence is transient in character, and who do not intend to sleep on the premises.

11. FIXED USE AMUSEMENT, RECREATION PLACES

- 111. Bowling establishment.
- 112. Billiard Center.
Included are pool centers and pool halls.
- 113. Amusement center.
Amusement hall, such as shooting gallery, penny arcade, bingo hall, dance hall, and the like. Excluded are bowling establishments (111), billiard centers (112), and halls with variable use (121).
- 114. Ice rink.
Included are establishments used solely for ice skating, ice hockey, and curling. Ice rinks in arenas and other places that can be converted to other uses are classified in division 12.
- 115. Roller rink.
- 116. Swimming facility.
Included are all swimming pools, related cabanas, bathhouses, and equipment locations.
- 119. Fixed Use Amusement, Recreation Places not classified above.
- 110. Fixed Use Amusement, Recreation Places; insufficient information available to classify further.

12. VARIABLE USE AMUSEMENT, RECREATION PLACES

- 121. Ballroom, gymnasium.
Included are dance halls.
- 122. Exhibition hall, exposition hall.
Large open hall without fixed seating facilities. Included are college "cages," armory halls, and field houses.
- 123. Arena, stadium.
Fixed seating in large areas. Included are ball parks, race tracks, grandstands, and sports gardens.

- 124. Playground.
- 129. Variable Use Amusement, Recreational Places not classified above.
- 120. Variable Use Amusement, Recreational Places; insufficient information available to classify further.

13. CHURCHES, FUNERAL PARLORS

- 131. Church, chapel.
- 132. Religious education facility.
Facilities for use in periodic religious education. Included are Sunday schools. Excluded are regular education buildings run by religious institutions which are classified in major division 2.
- 133. Church hall.
Hall for fellowship, meetings, and the like. Included are offices, kitchens and classrooms contained within the structure.
- 134. Funeral parlor, chapel.
Included are crematoriums, mortuaries, morgues, and mausoleums.
- 139. Churches, Funeral Parlors not classified above.
- 130. Churches, Funeral Parlors; insufficient information available to classify further.

14. CLUBS

- 141. City club.
Included are city club facilities without sleeping accommodations, such as athletic, lodge, social, steam bathing, health, swimming, YMCA, and boy's clubs. If sleeping accommodations are present, classify in major division 4. Excluded are nightclubs (162).
- 142. Country club.
Included are country club facilities, such as golf, tennis, rifle, hunting, fishing, beach, and riding clubs.
- 143. Yacht club.
Included are boating and yacht club facilities. Excluded are marinas and boat mooring facilities (885), boat repair facilities (782), and marine refueling facilities (577).
- 149. Clubs not classified above.
- 140. Clubs; insufficient information available to classify further.

15. LIBRARIES, MUSEUMS, COURT ROOMS

- 151. Library.
- 152. Museum, art gallery.
Included are aquariums and planetariums.
- 153. Historic building.
- 154. Memorial structure, monument.
- 155. Court room.
- 156. Legislative hall.
- 159. Libraries, Museums, Court Rooms not classified above.

150. Libraries, Museums, Court Rooms; insufficient information available to classify further.

16. EATING, DRINKING PLACES

Included are retail establishments selling prepared foods and drinks.

161. Restaurant.

Those eating places specializing in food primarily for consumption on the premises. Included are cafeterias and diners, with table or automatic service.

162. Nightclub.

Those places specializing in food and drink. They may have dancing or entertainment. Included are key clubs, supper clubs, and dinner theaters.

163. Tavern.

Those places specializing in the sale of alcoholic beverages, consumed primarily on the premises, with food as a minor supplement only.

164. Lunchroom, drive-in.

Those places specializing in quick service for food or beverages. Included are lunch counters, drive-ins, snack bars, and the like. Excluded are delicatessens (516).

169. Eating, Drinking Places not classified above.

160. Eating, drinking Places; insufficient information available to classify further.

17. PASSENGER TERMINALS

Included are incidental freight handling facilities.

171. Airport passenger terminal.

172. Hellport, hellstop.

173. Bus passenger terminal.

Included are terminals for airline limousines and downtown airline terminal buildings.

174. Street level rail terminal.

175. Underground rail terminal.

176. Elevated rail terminal.

177. Marine passenger terminal.

Included are ferry terminals.

179. Passenger Terminals not classified above.

170. Passenger Terminals; insufficient information available to classify further.

18. THEATERS, STUDIOS

181. Legitimate theater.

Included are combined live and movie theaters.

182. Auditorium, concert hall.

183. Motion-picture theater.

Excluded are drive-in theaters (184).

184. Drive-in motion-picture theater.

185. Radio, TV studio.

186. Motion-picture studio.

Included are motion-picture making studios and editing areas. Excluded are film processing facilities (797).

189. Theaters, Studios not classified above.

180. Theaters, Studios; insufficient information available to classify further.

10. PUBLIC ASSEMBLY PROPERTY: UNCLASSIFIED

109. Public Assembly Property not classified above.

100. Public Assembly Property; insufficient information available to classify further.

2. EDUCATIONAL PROPERTY

Educational properties are those used for the gathering of groups of persons for purposes of instruction such as schools, colleges, universities, and academies. Educational properties are distinguished from public assembly properties in that the same occupants are present regularly, and they are subject to discipline and control. Included are part-day nursery schools, kindergartens, and other schools whose primary purpose is education.

Other properties associated with educational institutions are classified in accordance with their actual use.

21. NONRESIDENTIAL SCHOOLS

All public, private, or parochial schools where students attend during the day only.

211. Nursery school.

Schools for prekindergarten-age children, operating 4 hours a day or less. If operating over 4 hours, classify as child day care center (321).

212. Kindergarten.

Schools for children in the grade before grade

213. Elementary school.

214. Junior high school.

Included are intermediate and middle schools.

215. High school.

219. Nonresidential Schools not classified above.

210. Nonresidential Schools; insufficient information available to classify further.

22. RESIDENTIAL SCHOOLS

All public, private, or parochial boarding schools, including such day student facilities as may be present.

221. Residential school classroom building.
Buildings containing classrooms. Included are such laboratories, libraries, and offices as may be present. If one building houses the entire school, the fire is classified by point of origin, that is, dormitory, office, etc. Other buildings in a school property are classified as to their appropriate fixed property use.
229. Residential Schools not classified above.
220. Residential Schools; insufficient information available to classify further.

23. TRADE, BUSINESS SCHOOLS

Other than high school or college.

231. Vocational, trade school.
232. Business school.
233. Specialty school.
234. Rehabilitation center where attendance is by choice.
Excluded are vocational rehabilitation centers where attendance is by direction (346).
239. Trade, Business Schools not classified above.
230. Trade, Business Schools; insufficient information available to classify further.

24. COLLEGES, UNIVERSITIES

241. College classroom building.
Buildings containing classrooms used for higher education whether a college, university, junior college, community college, or any other institution of higher learning. Included are such incidental laboratories, libraries, and offices as may be present. If one building houses the entire college, classify here. Other buildings in a college are classified under the appropriate fixed property use, such as dormitory, office, and the like.
249. Colleges, Universities not classified above.
240. Colleges, Universities; insufficient information available to classify further.

20. EDUCATIONAL PROPERTY: UNCLASSIFIED

209. Educational Property not classified above.
200. Educational Property; insufficient information available to classify further.

3. INSTITUTIONAL PROPERTY

institutional properties are those used for purposes such as medical or other treatment or care of persons suffering from physical or mental illness, disease, or infirmity; for the care of infants, convalescents, or aged persons; and for penal or corrective purposes. Institutional buildings ordinarily provide sleeping facilities for the occupants.

31. CARE OF THE AGED

- Care of the aged in any type of structure regardless of the name or title (See subdivision 332 for sanatoriums).
311. Care of the aged with nursing staff.
312. Care of the aged without nursing staff.
319. Care of the Aged not classified above.
310. Care of the Aged; insufficient information available to classify further.

32. CARE OF THE YOUNG

321. Day child-care center.
Care of preschool-age children operating more than 4 hours a day. If operating 4 hours or less a day, classify as nursery school (211).
322. Children's home, orphanage.
Included are facilities with one or more paid staff on full time basis and where the relationship is a "staff-child" relationship. Excluded are foster homes (323).
323. Foster home.
Included are facilities where one or more foster children are cared for without a paid staff and where the relationship is a "parent-child" relationship.
329. Care of the Young not classified above.
320. Care of the Young; insufficient information available to classify further.

33. CARE OF THE SICK, INJURED

331. Hospital, hospital-type infirmary.
332. Sanatorium, sanitarium.
Included are facilities for care of post-operative patients, where care of aged is minor in proportion to other care.
334. Clinic, clinic-type infirmary.
Included are separate clinic buildings for maternity and other uses. Excluded are medical office buildings (593) and outpatient clinics (593).
339. Care of the Sick, injured not classified above.
330. Care of the Sick, injured; insufficient information available to classify further.

34. CARE OF THE PHYSICALLY RESTRAINED

341. Prison cell, cell block for men.
342. Prison cell, cell block for women.
343. Juvenile detention home.
Regardless of local terminology, living units shall be classified here when three or more units are located within common fire division walls, and the units are under a common roof, or have a common basement.
344. Men's detention camp.
Minimum security type.

- 345. Police station.
- 346. Vocational rehabilitation center.
Attendance by direction. Excluded are rehabilitation centers where attendance is by choice (234).
- 349. Care of the Physically Restrained not classified above.
- 340. Care of the Physically restrained; insufficient information available to classify further.

35. CARE OF THE PHYSICALLY INCONVENIENCED

Included are facilities which care for persons who are physically incapable of self help under emergency conditions.

- 351. institution for deaf, mute, or blind.
- 352. institution for physical rehabilitation.
- 359. Care of the Physically Inconvenienced not classified above.
- 350. Care of the Physically Inconvenienced; insufficient information available to classify further.

36. CARE OF THE MENTALLY HANDICAPPED

Included are facilities which care for persons who are mentally incapable of self help under emergency conditions.

- 361. Mental institution.
Included are facilities for the criminally insane.
- 362. Institution for the mentally retarded.
- 369. Care of the Mentally Handicapped not classified above.
- 360. Care of the Mentally Handicapped; insufficient information available to classify further.

30. INSTITUTIONAL PROPERTY: UNCLASSIFIED

- 309. institutional Property not classified above.
- 300. institutional Property; insufficient information available to classify further.

4. RESIDENTIAL PROPERTY

A residential property is one in which sleeping accommodations are provided for normal living purposes, and includes all buildings designated to provide sleeping accommodations except those classified under Institutional (major division 3).

Subdivisions of residential property used in this section are separated according to potential life hazard. Popular names and legal definitions may be different from those given here. The categories here, however, are significant from a fire and life protection standpoint.

CAUTION: Classify the property by its actual use according to the standard definitions given here, not by what the property owner cares to

call his building. Thus, a residential property called a "hotel" on the sign over the door may not be a hotel by these definitions. From a fire standpoint it may be an Apartment (division 42), or a Rooming House (division 43), depending upon its use.

There are three major differences between categories of residential property used in this standard:

- a. A separate and independent living unit for each person or group of related persons; or not.
- b. Kitchens in individual units; or not.
- c. Generally long-term occupants; or not.

In residential structures falling between the categories given below, use the category appearing most applicable.

41. ONE- AND TWO-FAMILY DWELLING

- Separate living units - Yes
- Kitchens in units - Yes
- Long-term occupants - Yes

Private dwellings and duplexes each occupied by members of a single family group, with total sleeping accommodations for not more than 20 persons, with rooms rented to no more than two outsiders per unit.

If sleeping accommodations for more than 20 persons are provided in one building, it shall be classified as an apartment or a dormitory. If a separate business or other occupancy is contained in the building, it shall be classified in division 42 and the appropriate property complex used.

"Row houses," "townhouses," "garden apartments," and other similar units regardless of local terminology, shall be classified as dwellings (division 41) when one or two units are separated from the adjoining units by fire division walls, and the one or two units are under their own roof.

A mobil home not in transit, and used as a dwelling, should be classified here, and also as a "mobil building" (subdivision 17) in Mobil Property Type. A travel trailer not in transit and used as a dwelling should be classified here, and also as a "travel trailer" (subdivision 15) in Mobile Property Type.

Parking garages, for one- and two-family dwellings, whether attached or detached, are classified in subdivision 881.

- 411. One-family dwelling: year-round use.
- 412. One-family dwelling: seasonal use.
- 414. Two-family dwelling: year-round use.
- 415. Two-family dwelling: seasonal use.
- 419. One- and Two-Family Dwelling not classified above.
- 410. One- and Two-Family Dwelling; insufficient information available to classify further.

42. APARTMENTS, TENEMENTS, FLATS

Separate living units - Yes
 Kitchen in units - Yes
 Long-term occupants - Yes

Quarters for families living independently of each other, and with kitchen facilities in individual units, whether designated as "apartment house," "garden apartment," "tenement," "condominium apartment," "flat," or by any other name.

Regardless of local terminology, living units shall be classified here when three or more units are located within common fire division walls, and the units are under a common roof, or have a common basement.

An apartment in a building with a separate store, office, or other business is identified here and also as a "Business with Residential Complex" (Complex Code 40).

Parking garages exclusively for tenants, whether attached or detached, are classified in subdivision 881 or 882.

- 421. 1 or 2 living units with business.
 Excluded are one or two living units without business which are classified as dwellings (division 41).
- 422. 3 through 6 units.
- 423. 7 through 20 units.
- 424. Over 20 units.
- 429. Apartments, Tenements, Flats not classified above.
- 420. Apartments, Tenements, Flats; insufficient information available to classify further.

43. ROOMING, BOARDING, LODGING HOUSES.

Separate living units - Yes
 Kitchens in units - No
 Long-term occupants - Either

Living quarters in which separate sleeping rooms are rented, with sleeping accommodations for a total of not more than 15 persons, on either a transient or permanent basis, with or

without meals, but without separate cooking facilities for individual occupants.

Halfway houses or group care homes can be classified here if all persons are certified by mental or health authorities as capable of self help under emergency conditions.

Where rooms are rented for one or two persons, classify in division 41. Where rooms are rented for more than 15 persons, classify in division 44 or division 46.

- 431. 3 to 8 roomers or boarders.
- 432. 9 to 15 roomers or boarders.
- 439. Rooming, Boarding, Lodging Houses not classified above.
- 430. Rooming, Boarding, Lodging Houses; insufficient information available to classify further.

44. HOTELS, MOTELS, INNS, LODGES

Separate living units - Yes
 Kitchens in units - No
 Long-term occupants - No

Living quarters in which there are sleeping accommodations for hire for more than 15 persons, primarily used by transients, lodged with or without meals, but without separate cooking facilities in each unit, whether designated as a "hotel," "motel," "club," "apartment hotel," "YMCA," "lodge," or by any other name. Included are dormitories for transient occupants.

- 441. Less than 20 units: year-round use.
- 442. Less than 20 units: seasonal use.
- 443. 20 to 99 units: year-round use.
- 444. 20 to 99 units: seasonal use.
- 445. 100 or more units: year-round use.
- 446. 100 or more units: seasonal use.
- 449. Hotels, Motels, inns, Lodges not classified above.
- 440. Hotels, Motels, inns, Lodges; insufficient information available to classify further.

46. DORMITORIES

Separate living units - Either
 Kitchens in units - No
 Long-term occupants - Yes

Living quarters provided for an extended period, for persons not members of the same family group, in one room or a series of closely associated rooms, under joint occupancy and single management, with or without meals. Use division 44 for dormitories with transient occupants.

- 461. School, college, university, dormitory.
- 462. Fraternity, sorority house.
- 463. Nurses' quarters.
- 464. Military barracks.
- 465. Convent, monastery, other religious dormitory.
- 466. Bunk house, worker's barracks.
- 469. Dormitories not classified above.
- 460. Dormitories; insufficient information available to classify further.

48. HOME HOTELS

- Separate living units - Yes
- Kitchens in units - Yes
- Long-term occupants - No

Living quarters for persons or families living independently of each other, with kitchen facilities and with a transient population, whether designated as "hotel," "apartment," "apartment hotel," or by any other name.

- 481. Less than 20 units: year-round.
- 482. Less than 20 units: seasonal.
- 483. 20 to 99 units: year-round.
- 484. 20 to 99 units: seasonal.
- 485. 100 or more units: year-round.
- 486. 100 or more units: seasonal.
- 489. Home Hotels not classified above.
- 480. Home Hotels; insufficient information available to classify further.

49. OTHER RESIDENTIAL OCCUPANCIES

- 491. Children's playhouse.
- 492. Outdoor sleeping quarters.
Included are tents.
- 499. Other Residential Occupancies not classified above.
- 490. Other Residential Occupancies; insufficient information available to classify further.

40 RESIDENTIAL PROPERTY; UNCLASSIFIED.

- 409. Residential Property not classified above.
- 400. Residential Property; insufficient information available to classify further.

5. STORE, OFFICE PROPERTY

Store properties include all markets and other areas, buildings, or structures for the display, sale, repair, or service of merchandise, new or used, purchased or rented. Mercantile or store properties generally have a capacity for a large number of people and usually have a display and sales area that is large in relation to the storage area.

Office properties are those which are principally used for the transaction of business and the keeping of private or public records.

51. FOOD, BEVERAGE SALES

Sale of food and beverage for consumption on the premises is classified in division 16.

- 511. Supermarket.
Supermarkets that sell a broad line of food items as well as some nonfood items and cover over 10,000 square feet in total area.
- 512. Market, grocery store.
Markets and grocery stores that sell a broad line of food items as well as some nonfood items and cover less than 10,000 square feet in total area.
- 513. Specialty food store.
Specialty food stores that specialize in a few basic food items and may have supplementary items for customer convenience. Included are meat, fish, candy, bakery, gourmet shops, and roadside farm produce stands and counters. Excluded are liquor, beverage stores (514), creamery, dairy stores (515), and delicatessens (516).
- 514. Liquor, beverage store.
- 515. Creamery, dairy store.
Included are quick-freeze and frozen ice cream stores and stands.
- 516. Delicatessen.
Sale of prepared foods mainly for consumption off the premises. Included are pick-up and carry-out services. Excluded are drive-in type restaurants (164).
- 519. Food, Beverage Sales not classified above.
- 510. Food, Beverage Sales; insufficient information available to classify further.

52. TEXTILES, WEARING APPAREL SALES

- 521. Clothing store.
Sale of wearing apparel, whether new or used, and clothing rental shops. included are sales of accessories incidental to clothing sale. Excluded are shoe stores (522) and fur stores (525).
- 522. Clothing accessories, shoe store.
Shops specializing in clothing accessories, whether new, used, or rented. included are tie, shoe,-shirt, and hat stores.
- 523. Shoe repair shop.
Repair of boots and shoes (cobbling). Included are repairers who also make footwear; and shining stands and shops.
- 524. Tailor, dressmaking shop.
Included are stores specializing in alterations to readymade wear.

525. Fur store.
Stores specializing in fur sales. Excluded are fur departments of stores with a broad line of clothing goods (521) and the storage of fur garments (828).
526. Dry goods Store.
Included are all sales of dry goods, yard goods, and piece goods. Excluded are clothing stores (521), clothing accessories stores (522), and rug or carpet sales (536).
529. Textile, Wearing Apparel Sales not classified above.
520. Textile, Wearing Apparel Sales; insufficient information available to classify further.

53. HOUSEHOLD GOODS SALES, REPAIRS

Sale of common items used principally to equip and maintain the home.

531. Furniture store.
Included are sale of all new and used furniture, Office furniture, and large nondesk-top equipment, such as water coolers. Excluded are office supply and desk-top office equipment sales (541), and furniture departments of large multi-department store (581).
532. Appliance store.
Included are those stores principally selling major and minor appliances with or without associated repair departments. Excluded are appliance repair shops without sales (538).
533. Hardware store.
Included are sales of tools and associated equipment, parts, and retail plumbing supplies.
534. Music store.
Included are the sale or rental of records, sheet music, pianos, organs, and other instruments, and associated listening and teaching facilities.
535. Wallpaper, paint store.
Included are sales of wall coverings and decorating materials, and sale or rental of associated tools and equipment.
536. Rug, floor covering store.
Included are the sale and rental of rugs, carpets, and floor coverings, and the sale or rental of associated tools and equipment.
537. Furniture repair shop.
included are shops for repair of furniture and upholstery without sales. Excluded are repairs with sales (531).
538. Appliance repair shop.
Included are shops for repair of appliances without sales. Excluded are repairs with sales (532).
539. Household Goods Sales, Repairs not classified above.
530. Household Goods Sales, Repairs; insufficient information available to classify further.

54. SPECIALTY SHOPS

Sales of material commonly used in the home.

541. Book, stationery store.
Included are sales of new or used books, office supplies, and desk-top office equipment. Excluded are sales of larger office equipment and office furniture (531).
542. Newsstand, tobacco shop.
543. Drug store.
Usually has a pharmacist on duty. Excluded are drug stores which are chiefly variety stores (582 or 583).
544. Jewelry store.
Included are jewelry and watch repair shops and associated gift sales.
545. Gift shop.
Included are sales of glassware, china, silver, and other gift items. Excluded are jewelry and watch repair shops (544).
546. Leather goods shop.
Included are the sale of leather goods, and luggage of all types and from all materials. Excluded are shoe stores (522).
547. Florist shop, greenhouse.
Included are florist shops for the sale of flowers (artificial or natural), greenhouses, and flower raising operations.
548. Optical goods sales.
Included are opticians, eyeglass fitting and grinding.
549. Specialty Shops not classified above.
540. Specialty Shops; insufficient information available to classify further.

55. RECREATION, HOBBY, OR HOME REPAIR SUPPLY SALES, PERSONAL SERVICES

The sale and processing of material used in hobbies, sports, and recreation activities, and personal service. Excluded are record shops (534).

551. Hobby, toy shop.
Included are the sale of toys and hobby supplies. Excluded are art supplies (563), sporting goods (552), and photographic goods (553).
552. Sporting goods store.
Included are the sale of firearms, ammunition, tents, and other material for use in all sporting events. Excluded are sportswear shops (521).
553. Photographic supply sales, still picture studio.
included are the sale of photographic equipment. Excluded are motion picture studios (186) and plant processing of film (797).

554. Garden supply store.
Included are the retail sale of equipment, seeds, fertilizer for home or garden use, and sale or rental of snow blowers, lawn sweepers, and other home maintenance machines.
555. Retail lumber sales.
Lumber distribution centers often of the super-market type. Included are sales of related home repair supplies. Excluded are lumber yards principally for storage (851).
556. Pet store, animal hospital.
Sale of pets, animal and pet supplies. included are animal hospitals and care centers.
557. Barber, beauty shop.
558. Fireworks sales.
Included are retail fireworks sales from temporary or permanent locations.
559. Recreation, Hobby, or Home Repair Supply Sales, Personal Services not classified above.
550. Recreation, Hobby, or Home Repair Supply sales, Personal Services; insufficient information available to classify further.

56. PROFESSIONAL SUPPLIES, SERVICES

561. Professional supply sales.
Included are the sale of stethoscopes, hospital supplies, special tools, engineering instruments, and other professional supplies.
562. Trade supply sales.
Included are the sale of machinist's supplies, plumber's tools, and carpenter's equipment.
563. Art supply sales.
564. Self-service laundry, dry cleaning.
565. Linen supply house.
566. Laundry, dry cleaner pick-up shop.
Shops for pick-up of laundry and cleaning with little or no processing on the premises, other than pressing.
567. Home maintenance services.
Included are firms doing home maintenance work such as floor cleaning, window washing, chimney cleaning, and exterminating.
568. Restaurant supplies, services.
569. Professional Supplies, Services not classified above.
560. Professional Supplies, Services; insufficient information available to classify further.

57. MOTOR VEHICLE OR BOAT SALES, SERVICES

571. Public service station.
Fuel service facilities for motor vehicles operated for the public, such as gasoline service stations, diesel fuel stations, and LP-Gas stations, with associated lubrication and wash facilities. included are service station islands. Excluded are marine service facilities (577).

572. Private service station.
Private or fleet vehicle refueling where an employee may fuel the vehicle himself, such as at a transit company garage, a trucking company yard, or a farm.
573. Motor vehicle repair, paint shop.
Repair of automobiles or motor trucks and shops doing specialized repair work to motor vehicles such as repair of auto tops, hoods, or electrical systems. Excluded are car washing facilities (578).
574. Motor vehicle, trailer sales.
Included are the sale of farm implements and motorcycles.
575. Motor vehicle accessory sales.
Sale of accessories for motor vehicles such as lights, tires, parts, and special tools.
576. Boat, pleasure craft sales.
Sale of boats, marine vessels, outboard motors, and accessories. Excluded are incidental sales at boat storage facilities (885) and boat repair yards (782).
577. Marine service station.
Refueling facilities for marine vessels of any size.
570. Car washing facility.
579. Motor Vehicle or Boat Sales, Services not classified above.
570. Motor Vehicle or Boat Sales, Services; insufficient information available to classify further.

58. GENERAL ITEM STORES

- included are stores selling a wide range of items that cannot be readily classified in previous subdivisions.
581. Department store.
A store with many separate lines of goods, but to be classified here the store must have a full furniture department.
582. Small variety store.
A store of less than 10,000 square feet with a wide range of goods but no furniture department. Included are Army-Navy stores, "5 and 10 cent stores," second-hand stores, and surplus stores.
583. Large variety store.
A store of 10,000 square feet or over with a wide range of goods but no furniture department. Merchandise is usually displayed as in a supermarket, and stores are usually self-service with check out counters.
584. Mail order store.
Mail order and catalog stores with display area regardless of size. Use subdivision 581 when applicable and when the mail order section is a small section of the large store.

585. Mail.
Included are only the areas common to a multistore facility.
See Property Complex for "Shopping Center."
589. General item Stores not classified above.
580. General item Stores; insufficient information available to classify further.

59. OFFICES

Office properties are those used for the transaction of business, for the keeping of accounts and records, and for similar purposes. Included are buildings housing business, administrative, professional, or regulatory functions; doctors' and dentists' offices, unless of such character as to be classified as hospitals; service facilities usual to office buildings; and municipal office buildings, as their principal function is the transaction of the public business and the keeping of books and records.

Minor office occupancy incidental to operations in another property shall be considered part of the predominating property.

591. General business office.
Office buildings for the administration of industrial and business enterprises whether at the plant or located elsewhere. included are offices of insurance carriers, consultants, and adjusting agencies; real estate operators, developers, and agents; lawyers, advocates, and solicitors; importers, exporters, manufacturers' agents, commodity brokers; trade associations, chambers of commerce, professional societies; labor organizations; religious organizations; local and county government offices; state or provincial government offices; central government offices; offices of the armed forces and defense agencies; and savings and loan companies without first story banking premises.
592. Bank, with first story banking facilities.
Excluded are savings and loan companies without first story banking premises (591).
593. Medical, research, scientific office.
Included are surgical, dental, health service offices: offices of nurses and midwives; consulting rooms or offices of physicians, surgeons, and other medical practitioners; offices primarily engaged in research; and offices at meteorological institutes. Excluded are laboratories classified in division 62.
594. Engineering, architectural, technical office.
included are surveying and scientific engineering development offices, and permanent office buildings of a contractor. Excluded are con-

tractor's jobsite located shops and pan's storage (916).

595. Mailing firm.
596. Post office.
599. Offices not classified above.
590. Offices; insufficient information available to classify further.

50. MERCANTILE PROPERTIES, OFFICES; UNCLASSIFIED

509. Mercantile Properties, Offices not classified above.
500. Mercantile Properties, Offices; insufficient information available to classify further.

6. BASIC INDUSTRY, UTILITY, DEFENSE PROPERTY

Included are agriculture, forestry, the extractive and mining industries, mineral products, utilities, laboratories, nuclear plants, and communication facilities; and national defense sites, since they depend so heavily on communications.

61. NUCLEONICS, ENERGY PRODUCTION

611. Radioactive material working.
Included are plants manufacturing fuel elements or involved with radioactive waste disposal, and plants processing or producing uranium, radium, thorium, heavy water, or plutonium.
612. Nuclear ordnance plant.
included are bomb assembly plants.
613. Nuclear energy plant.
Production of energy for power purposes. included are the generation of electricity if an integral part of the nuclear plant.
614. Steam, heat energy plant.
Creation of heat and steam from any fuel except nuclear. Included are integral Boiier-Turbine-Generator units driven. by non nuclear fuels.
615. Electric generating plant.
Generation of electric energy. Included are locations producing electricity for public use, for rail transport use, for groups of factories, and for individual properties. Excluded are the energy sources (613 or 614) unless they are integral units.
616. Gas manufacturing plant.
Manufacture of gas in gas works, including peak shaving gas plants.
619. Nucleonics, Energy Production not classified above.
610. Nucleonics, Energy Production; insufficient information available to classify further.

62. LABORATORIES

Included are classrooms and offices incidental to laboratory facilities. Minor laboratory areas incidental to operations in another property shall be considered part of the predominating property.

- 621. Chemical, medical laboratory.
Included are biological laboratories.
- 622. Physical materials testing laboratory.
Included are all laboratories for testing physical properties of materials, hydraulic laboratories, physics laboratories, and physical materials laboratories.
- 623. Personnel, psychological laboratory.
Included are laboratories for the testing and measuring of persons, and educational laboratories.
- 624. Radioactive materials laboratory.
Any laboratory handling or using radioactive material in a quantity requiring marking.
- 625. Electrical, electronic laboratory.
- 626. Agricultural laboratory.
- 627. General research laboratory.
- 629. Laboratories not classified above.
- 620. Laboratories; insufficient information available to classify further.

63. COMMUNICATIONS, DEFENSE, DOCUMENT FACILITIES

Critical areas where security must be maintained in order to assure national, business, or public safety continuity.

- 631. National defense site not elsewhere classified.
Included are missile or space vehicle launch sites. Excluded are radio and radar sites (632). The missiles or vehicles, themselves, are classified under Mobil Property Type.
- 632. Radio, radar site.
Included are microwave transmitter sites, flight control facilities, satellite tracking stations, and repeater sites. Excluded are fire, police, and industrial communication centers (633).
- 633. Fire, police, industrial communications center.
included are municipal, county, state, and province emergency communications facilities, such as fire control centers, police control centers, disaster control facilities, and all auxiliary equipment locations; and industrial communications centers.
- 634. Telephone exchange, central office.
Included are communications cable sites with the associated repeater and terminal facilities.
- 635. Computer, data-processing center.
- 636. Document center, record repository.
- 639. Communications, Defense, Document Fa-

cilities not classified above.

- 630. Communications, Defense, Document Facilities; insufficient information available to classify further.

64. UTILITY, ENERGY DISTRIBUTION SYSTEMS

- 642. Electric transmission, distribution system.
Distribution of electricity outside generating plant premises. Included are substations, transformers, and utility poles.
- 644. Gas distribution system, pipeline.
Piping systems and associated equipment for the distribution of gas fuels from manufacturing plants, storage facilities, or wells to the user. Included are transmission lines, compressors, and distribution piping.
- 645. Flammable liquid distribution system, pipeline.
Piping systems and associated equipment for the distribution of flammable liquid from manufacturing plants, storage facilities, or wells to the user. Included are transmission lines, compressors, and distribution piping.
- 646. Steam, heat distribution system.
Distribution of steam, hot water, hot chemicals, and hot oils, for heating and power purposes. Included are "district heating" systems.
- 647. Water supply system.
Collection, treatment, storage, and distribution of water.
- 648. Sanitary service.
Garbage and sewage disposal. Included are sewer systems, commercial incinerators, and industrial rubbish burners. Excluded are dumps (932).
- 649. Utility, Energy Distribution Systems not classified above.
- 640. Utility, Energy Distribution Systems; insufficient information available to classify further.

65. AGRICULTURE

Production of raw agricultural products and farming. Processing and working of products is classified elsewhere.

- 651. Poultry, egg production.
- 652. Cow, cattle production.
included are cow milking facilities, milk houses, and milk cooling facilities. Excluded are milk processing plants (712).
- 653. Piggery, hog production.
- 654. Other livestock production.
- 655. Crops, orchards.
- 656. Tobacco curing shed.
- 657. Fruit, vegetable packing.
Packing of raw fruit and vegetables as picked. Excluded are fruit and vegetable processing plants (713).

- 659. Agriculture, not classified above.
- 650. Agriculture; insufficient information available to classify further.

66. FORESTS, HUNTING, FISHING

- 661. Forest, standing timber without logging operations.
Included are wildlife preserves; timber tracts where planting, replanting, and conservation of forests are conducted; areas where uncultivated materials, such as gums and resin, wild rubber, saps, barks, wild fruits and flowers, and roots are gathered; and facilities where extracting, concentrating, and distilling of sap, and charcoal burning are carried on when located in the forest.
- 662. Forest, standing timber with logging operation.
Included are land areas where there is felling and rough cutting of trees, hewing or rough shaping of poles, blocks, and other wood materials; and timber and log piles in the forest. Excluded are sawmills operating in the forest (751).
- 663. Hunting, trapping, game propagation.
Included are areas where hunting, trapping, and game propagation of wild animals is conducted for commercial purposes not connected with sport.
- 664. Tree
Individual tree fires are classified here.
- 665. Fish hatchery.
- 666. Wood chip pile.
- 669. Forest, Hunting, Fishing not classified above.
- 660. Forest, Hunting, Fishing; insufficient information available to classify further.

67. MINING, QUARRYING OF NATURAL RAW MATERIAL

- Underground and surface mines, quarries, and oil wells.
Included are supplemental on-site machinery, prospecting for minerals, and preparing sites for extraction. Quarries and mines attached to other properties are, as far as possible, classified in this division.
- 671. Coal mine.
- 672. Ore mine.
- 673. Ore concentration plant.
- 674. Petroleum, natural gas well with accompanying reservoir.
Oil and gas producing property, oil well and natural gas well operations. Included are prospecting and drilling, oil shale or bituminous sand operations, and extraction of crude oil. Excluded are pipe line operations (644 and 645).

- 675. Stone, slate, clay, gravel, sand quarries, pits.
The extraction of building and monumental stone or slate; ceramic, refractory, and other clay; and all sand and gravel.
- 676. Salt mine.
The extracting and quarrying of salt. included are evaporating in salt pans, crushing, screening, and refining. Excluded are the refinement of salt for human consumption in establishments not engaged in extracting or quarrying salt (719).
- 677. Chemical, fertilizer, mineral mine.
The mining and quarrying of phosphate and nitrate minerals, fluorspar, sulfur ores and natural sulfur, potash, sodium and borate minerals, borites, pyrites, arsenic, strontium and lithium minerals, and mineral pigments. Included are guano gathering operations.
- 678. Nonmetallic mineral mine, quarry.
All other nonmetallic mining and quarrying, such as asbestos. Included are areas where peat is cut and dug.
- 679. Mining, Quarrying of Natural Raw Materials not classified above.
- 670. Mining, Quarrying of Natural Raw Materials; insufficient information available to classify further.

68. NONMETALLIC MINERAL, MINERAL PRODUCTS MANUFACTURE

- Manufacture of clay products, glass and glass products; pottery, china, and earthenware; cement, concrete products, and other nonmetallic mineral products. Coal and petroleum are classified in division 67.
- 681. Structural clay products manufacture.
Manufacture of structural clay products such as bricks, tiles, pipes, crucibles, architectural terra cotta; stove lining, chimney pipes and tops; and refractories.
- 682. Glass manufacture, excluding containers.
Manufacture of all glass and glass products except glass containers. Included are the manufacture of optical glasses and glass fiber. Excluded are the grinding of lenses (792 or 548) and glass container manufacturing (683).
- 683. Glass container manufacture.
- 684. Pottery, china, earthenware manufacture.
- 685. Cement manufacture.
- 686. Concrete batch plant.
- 687. Abrasives manufacture.
Included are the shaping of natural abrasives into grindstones, coating cloth and paper with abrasives, and making abrasive bonded wheels and disks.

688. Nonmetallic mineral product manufacture. Manufacture of concrete, gypsum and plaster products, asbestos, mineral wool, cut-stone and stone producers, and all other nonmetallic mineral products.
689. Nonmetallic Mineral, Mineral Products Manufacture not classified above.
680. Nonmetallic Mineral, Mineral Products Manufacture; insufficient information available to classify further.

60. BASIC INDUSTRY, UTILITY, DEFENSE: UNCLASSIFIED

609. Basic Industry, Utility, Defense not classified above.
600. Basic Industry, Utility, Defense; insufficient information available to classify further.

7. MANUFACTURING PROPERTY

Included are properties where there is mechanical or chemical transformation of inorganic or organic substances into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail. The assembly of component parts of manufactured products is part of manufacture, except in cases where the activity is appropriately classified in division 91, Construction.

Included are factories making products of all kinds and properties devoted to operations such as processing, assembling, mixing, packing, finishing or decorating, repairing, and similar operations. For mineral processing, use division 68.

71. FOOD

711. Slaughtering, preparation, preserving of meat.
Abattoirs and meat packing plants; killing, dressing, and packing poultry, rabbits, and small game. included are processing and packing activities such as curing, smoking, salting, pickling, packing in air-tight containers, and quick-freezing, as well as manufacture of natural sausage casing and the rendering of lard and other edible animal fats. Excluded are canning and processing of fish and sea foods (714).
- 712 Dairy product manufacture.
Manufacture of creamery and processed butter, natural and processed cheese, condensed and other types of concentrated milk, ice cream and ices, powdered milk, and other edible milk products. Included are the pasteur-

- izing and bottling of milk.
713. Canning, preserving of fruits, vegetables. Canning (packing in air-tight containers) of fruits and vegetables including fruit and vegetable juices; manufacture of raisins and dried fruits, preserves, jams and jellies, pickles and sauces and canned soups. Included are dehydration and quick-freezing.
714. Canning, preserving of fish, sea foods. Preserving and processing fish and other marine foods. Included are such operations as salting, drying, dehydrating, smoking, curing, cooling, pickling, packing in air-tight containers, and quick-freezing. Excluded are icing, salting, filleting of fish catch, and processing of the catch aboard fishing vessels (Mobil Property Type 48).
715. Manufacture of grain mill products.
Grain mills (flour, meal, dry feeds): husking, cleaning, and polishing of rice; preparation of breakfast foods such as rolled oats, rice, wheat and corn flakes, parched grain; prepared feeds for animals and fowl; blended and prepared flour, and other cereal and pulse preparations. Included are coffee, pulse, root peeling mills, and starch and its products.
716. Bakery product manufacture.
Manufacture of bread, cakes, cookies, doughnuts, pies, pastries, and similar "perishable" bakery products; biscuits and similar "dry" bakery products. Excluded are breakfast foods (715).
717. Sugar refining, confectionery manufacture.
Manufacture and refining of raw sugar, syrup, and granulated or clarified sugar from sugar cane or sugar beets. Manufacture of cocoa and chocolate powder from beans, chocolates, all types of confectionery.
718. Snack foods manufacture.
Potato chips and other products of deep fat frying.
719. Food Industries not classified above.
Included are the manufacture of baking powder and yeast; condiments, mustard, and vinegar; food specialties; egg specialties; spice grinding; processing of tea leaves into black tea; edible salt refining; and harvesting and the manufacturing of ice, except dry ice. Excluded is the manufacture of dry ice (761).
710. Food Industries; insufficient information available to classify further.

72. BEVERAGES, TOBACCO, ESSENTIAL OILS

721. Distilling, rectifying, blending spirits.
Included are the distilling of ethyl alcohol for all purposes and the distilling, rectifying, and blending of alcoholic liquors.

722. Wines, Winery.
Production of wines, cider, and other fermented beverages except malt liquors.
723. Brewery, manufacture of malt.
The production of malt and malt liquors.
724. Soft drink, carbonated water industry.
Manufacture of nonalcoholic beverages, such as soft drinks and carbonated mineral waters. Included are the incidental manufacture of flavoring extracts and syrups. Excluded are the manufacture of syrup alone (717).
725. Tobacco products manufacture.
Included are stemming, redrying, and other operations after auctioning which are connected with preparing raw-leaf tobacco for manufacturing. Excluded are tobacco drying sheds (656).
726. Vegetable and animal oil, fat; soap making.
Production of crude oil, cake, and meal by crushing or extraction, from oilseeds and nuts; the extraction of fish and other marine animal oils; the rendering of inedible animal oils and fats; manufacture of margarine; and the refining and hydrogenation (or hardening) of oils and fats. Manufacture of soaps, detergents, and other washing and cleaning compounds, except where the process is chemical only, not involving oil or fat from livestock. Excluded are the manufacture of lard and other edible fats (711), and butter (712).
729. Beverages, Tobacco, Essential Oils not classified above.
720. Beverages, Tobacco, Essential Oils; insufficient information available to classify further.
- 73. TEXTILES**
731. Cotton gln.
732. Cotton spinning, weaving.
Preparing cotton fibers, such as picking, carding, combing, carbonizing, spinning, and weaving of yarns and fabrics. Manufacture of narrow fabrics and other small wares; carpets and rugs; and lace, braids, and other primary textiles. Excluded are spinning and weaving of asbestos (688).
733. Wool or worsted spinning, weaving.
Preparing wool and worsted fibers, such as scouring, carding, combing, carbonizing, spinning, and weaving of yarns and fabrics. Manufacture of narrow fabrics and other small wares; carpets and rugs; and lace, braids, and other primary textiles. Excluded are spinning and weaving of asbestos (688).
734. Mixed, blended, other fibers.
Spinning, weaving, preparing mixed, blended, and other fibers such as flax, hemp, jute, silk, sisal, and synthetic fibers such as retting, scutching, scouring, carding, combing, carbonizing, throwing, spinning, and weaving. Manufacture of narrow fabrics and other small wares; carpets and rugs; and lace, braid, yarn, and other primary textiles. Excluded are spinning and weaving of asbestos (688).
735. Textile finishing plant.
Bleaching, dyeing, printing, and finishing of all fabrics and fibers.
736. Knitting mills for all fibers.
Included are mills engaged in producing hosiery, outerwear, underwear, and other knitwear. Excluded are the making of garments from knitted fabrics other than in knitting mills (742).
737. Cordage, rope, twine, net manufacture.
Manufacture of rope, cable, cordage, twine, net, and other related goods from hemp, jute, cotton, paper, straw, coir, flax, and other fibers.
738. Floor covering, coated fabric manufacture, excluding rubber.
Manufacture of linoleum and other hard surfaced floor coverings, artificial leather, oil cloth, and impregnated and coated fabrics. Excluded are the manufacture of rubber tile (747) and clay tile (681).
739. Textiles not classified above.
Included are the manufacture of straw, coir, and similar matting and mats; felt by processes other than weaving; batting, padding, wadding, and upholstery filling from all fibers; the recovery of fibers from waste and rags. Excluded are the manufacture of wood-excelior upholstery filling (751).
730. Textiles; insufficient information available to classify further.
- 74. FOOTWEAR, WEARING APPAREL, LEATHER, RUBBER**
741. Footwear manufacture.
Manufacture of all kinds of footwear, boots, shoes, cut stock, findings, leggings, and gaiters from leather, fabrics, plastics, wood, and other materials. Excluded are vulcanized footwear (747) and repair shops which make footwear on a custom basis (523).
742. Wearing apparel manufacture, excluding footwear.
Manufacture of wearing apparel by cutting and sewing fabrics, leather, fur, and other materials; the making of hat bodies, hats, and millinery; and the manufacture of umbrellas and walking sticks. Excluded are the repair of wearing apparel in connection with the cleaning and pressing of these articles (796), tailoring and dressmaking (524), and shoe repair; (523).

743. Made-up textile goods manufacture, excluding wearing apparel.
Manufacturers who do no weaving and primarily engage in making up cloth goods such as house furnishings, trimmings of fabric, embroideries and pennants. Included are stitching, pleating, and tucking for the trade.
744. Tanneries, leather finishing.
Included are currying, finishing, embossing, and japanning of leather.
745. Fur products manufacture, excluding wearing apparel.
Included are scraping, currying, tanning, bleaching, and dyeing of fur and other pelts; the manufacture of fur and skin rugs and mats, hatter's fur, and other fur and skin articles; and fellmongery. Excluded are wearing apparel items manufactured from fur products (742).
746. Leather products manufacture, excluding footwear, wearing apparel.
Manufacture of leather products and articles made of leather, and products and articles made of leather and leather substitutes, such as leather sporting goods. Excluded are the manufacture of wooden saddlery (753), the manufacture of footwear (741), and the manufacture of wearing apparel (742).
747. Rubber, rubber products manufacture.
Manufacture of natural or synthetic rubber and all kinds of rubber products. The reclaiming of rubber from used tires, scrap, and miscellaneous waste rubber.
749. Footwear, Wearing Apparel, Leather, Rubber, not classified above.
740. Footwear, Wearing Apparel, Leather, Rubber; insufficient information available to classify further.
- 75. WOOD, FURNITURE, PAPER, PRINTING**
751. Sawmill, planing mill, wood products mill.
Manufacture of lumber products; wooden building materials and prefabricated parts and structures; cooperage and other wood stock; veneers and plywood; and excelsior. Included are areas doing preservation of wood; and sawmills and planing mills, whether or not mobile or operated in the forest. Excluded are the hewing and rough shaping of poles and other wood materials in the forest (662).
752. Wooden or cane containers, small cane ware manufacture.
Manufacture of boxes, crates, drums, barrels, and other wooden containers, baskets and other rattan, reed, or willow containers; and small ware made entirely or mainly of rattan, reed, willow, or other cane.
753. Wood, cork products manufacture (not containers).
Manufacture of products of wood and cork, and small ware consisting wholly or mainly of wood.
754. Furniture, fixture, bedding manufacture.
Manufacture of household, office, restaurant, public building, and professional furniture; bedding and upholstery; office and store fittings and fixtures regardless of the materials used. Excluded are the manufacture of special medical furniture, equipment, fixtures, and machines (791).
755. Paper, pulp, paperboard manufacture.
Manufacture of pulp from wood, rags, and other fibers; and of paper, paperboard, insulation board, and fiber building paper. Included are the coating, glazing, and laminating of paper and paperboard. Excluded are the manufacture of asphalted and tar-saturated paper (768), abrasive paper (687), sensitized paper (792), and carbon and stencil paper (799).
756. Paper, pulp, paperboard products manufacture.
Manufacture of pressed and molded pulp goods and articles made of paperboard.
757. Newspaper or magazine printing, publishing.
Printing, lithographing, and publishing newspapers, periodicals, magazines, trade journals, reviews, and related services.
758. Printing, publishing, allied industry.
Included are commercial or job printing, lithographing; manufacture of greeting cards; looseleaf devices, library binders, bookbinding; blank book making, paper ruling; and other work related to bookbinding such as bronzing, gilding, and edging; mat and mounting; services for the printing trades such as typesetting, engraving, and etching steel and copper plates; making woodcuts; photoengraving; electrotyping and stereotyping. Excluded are type foundries (773) and engraving on precious metals (794).
759. Wood, Furniture, Paper, Printing not classified above.
750. Wood, Furniture, Paper, Printing; insufficient information available to classify further.
- 76. CHEMICAL, PLASTIC, PETROLEUM**
For the purpose of this classification, a chemical is a material which has had or will have a controlled change in the molecular structure or composition, not involving polymerization; while a plastic is a material whose molecule has been polymerized. Use division 61 for heavy water or for nuclear changes.

761. Industrial chemical manufacture.
Manufacture of industrial organic and inorganic chemicals and industrial gases. Included are dry ice manufacturing plants. Excluded are all monomers and plastics plants (763).
762. Hazardous chemical manufacture.
Manufacture of materials requiring special handling in manufacture, shipment, storage, or use. Included are explosives, blasting agents, fireworks, matches, unstable rocket propellants, pyroxylin (cellulose nitrate) plastics, hazardous monomers, and organic peroxides. Excluded are the manufacture and handling of nuclear materials (611).
763. Plastic manufacture.
Manufacture of raw materials for plastics except those included in 762, and of synthetic resins, plastics, and elastomers.
764. Plastic product manufacture.
Included are facilities making plastic furnishings, housings, enclosures, covers, linings, and machine parts whether by molding, extruding, or any other method.
765. Paint, varnish, lacquer, ink, wax, adhesive manufacture.
Included are the manufacture of varnish stains and shellac, enamels, japans, polishes, and gelatin.
766. Drug, cosmetic, pharmaceutical manufacture.
Manufacture of drugs, medicinal and pharmaceutical preparations, perfumes, cosmetics and other toilet preparations.
767. Petroleum refinery, natural gas plant.
Included are the manufacture of petrochemicals, producing products from crude petroleum and its fractionation products including asphalt, the manufacture of petroleum and petroleum products from coal and other materials, including blending of lubricating oils and greases, and refinery tankage.
768. Asphalt, coal product manufacture.
Manufacture of asphalt tar or similar paving and roofing materials and fuel briquettes and packaged fuel. Included are the distillation of coal in coke ovens except as noted below. Excluded are the distillation of coal in coke ovens in iron and steel works (771) and the manufacture of coal gas (616).
769. Chemical, Plastic, Petroleum not classified above.
770. Chemical, Plastic, Petroleum; insufficient information available to classify further.
- 77. METAL, METAL PRODUCTS**
771. Iron, steel manufacture.
Manufacture of iron and steel shapes, consisting of all processes from smelting in blast furnaces to the semi-finished stages in rolling mills and foundries. Included are coke ovens associated with blast furnaces.
772. Nonferrous metal manufacture.
Manufacture of nonferrous metal shapes. Included are the processes of smelting, alloying and refining, rolling and drawing, and founding and casting, that are necessary to produce ingots, bars, billets, sheets, strips, castings, and extrusions.
773. Metal product manufacture.
Transformation of metal forms into finished products such as household cutlery. Included are industries engaged in enamelling, japanning, lacquering, gilding, galvanizing, plating, and polishing metal products: blacksmithing and welding. Excluded are plants manufacturing machinery (774), electrical equipment (775), silverware and jewelry (794), and specialized automobile, aircraft, and ship parts (division 78).
774. Machinery manufacture.
Manufacture of machinery and prime movers other than electrical equipment. Included are machine shops engaged in producing and repairing machine and equipment parts, and the production of ball bearings and mechanical precision measuring instruments, as well as industrial engines, and measuring and dispensing pumps. Excluded are plants manufacturing electrical equipment (775) and engines or specialized parts for automobile, aircraft, and marine use (division 78).
775. Electrical equipment manufacture.
Manufacture of machinery, apparatus, and supplies for the generation, storage, transmission, and transformation of electrical energy. Included are the manufacture of insulated wire and cable and the repair of electrical machinery. Excluded are instruments for measuring and recording electrical quantities and characteristics (791).
776. Electrical appliance, electronics equipment manufacture.
Included are plants manufacturing electric lamps; computers, communication equipment, and related products including radios and television sets; phonographs; electric batteries; X-ray and therapeutic apparatus; electronic tubes and components as well as the repair of electrical appliances. Excluded are instruments for measuring and recording electrical quantities and characteristics (791).
779. Metal, Metal Products not classified above.
770. Metal, Metal Products; insufficient information to classify further.

78. VEHICLE ASSEMBLY, MANUFACTURE

781. Shipbuilding, repairing of vessels over 65 feet.
Shipyards engaged in building and repair work on vessels over 65 feet in length including barges, lighters, and tugs whether self-propelled or not. Included are specialized marine engines, masts, spars, rigging and ship parts manufacture, dry docks, and ship breaking yards.
782. Boat building, repairing of vessels 65 feet and under.
Boat yards engaged in building and repair work on vessels 65 feet and under in length regardless of material used in manufacture and whether self-propelled or not. Included are facilities manufacturing specialized marine engines, outboard engines, masts, sails, rigging, and boat parts.
783. Railway equipment manufacture, assembly, repair.
The building and rebuilding of locomotives and railroad or tramway cars for freight and passenger service, and the production of specialized parts for locomotive and railroad tramway cars. Included are shops operated by railway companies for the manufacture and repair of locomotives and cars.
784. Motor vehicle manufacture, assembly.
Manufacture and assembly of motor vehicles such as automobiles, buses, trucks, truck trailers, universal carriers, motorcycles, and motor scooters. Included are plants manufacturing motor vehicle parts and accessories. Excluded are plants principally manufacturing tires and tubes (747), automobile glass (682), electrical equipment (775) agricultural and road-building tractors and fork-lift trucks (774), and facilities involved with motor vehicle repairs (573).
785. Bicycle manufacturing, assembly, repair.
Manufacture of bicycles, tricycles, pedicabs, and parts.
786. Aircraft and rocket manufacturing, assembly, repair.
Manufacture, assembly, and repair of airplanes, gliders, rockets, missiles, and aircraft parts such as engines, propellers, pontoons, and undercarriages. Excluded are the manufacture of electric and electronic equipment (775 or 776) and aeronautical instruments (791).
787. Manufacture of transport equipment.
Plants manufacturing special transport equipment such as animal-drawn and hand-drawn vehicles and parts for such vehicles such as wheels and axles.

789. Vehicle Assembly, Manufacture not classified above.

780. Vehicle Assembly, Manufacture; insufficient information available to classify further.

79. OTHER MANUFACTURING

Manufacturing industries not classified in any other division.

791. Instrument manufacture.
Manufacture of measuring, controlling, laboratory, and scientific instruments, and surgical, medical, and dental instruments and supplies. Excluded are the manufacture of optical instruments for scientific and medical use (792), the manufacture of X-ray and electric therapeutic apparatus (776), and the production of measuring and dispensing pumps (774).
792. Photographic, optical goods manufacture.
The manufacture of optical instruments and lens grinding; ophthalmic goods, photographic equipment and supplies, including sensitized film, plates, and paper. Included are plants manufacturing optical instruments for scientific and medical use.
793. Watch, clock manufacture.
The manufacture of clocks and watches, clock and watch parts and cases, and mechanisms for timing devices.
794. Jewelry manufacture.
Manufacture of jewelry, silverware, and plate ware, using precious metals, precious and semiprecious stones, and pearls. Included are the cutting and polishing of precious and semiprecious stones, the striking of medals and coins, and engraving on precious metals.
795. Musical Instrument manufacture.
The manufacture of musical instruments, such as pianos, stringed instruments, wind instruments, and percussion instruments. Included are the manufacture of phonograph record blanks. Excluded are manufacture of phonograph and speech recording machines (776).
796. Laundry, dry cleaning plant.
Mechanical and hand laundries. Included are plants supplying laundered linens (aprons, table covers, towels, napkins, or diapers) on a contract basis; cleaning, pressing, and dyeing, and performing minor repairs to apparel and household furnishings.
797. Photographic film processing laboratory.
Processing of photographic film in special plants and centers. Excluded are film processing operations incidental to other operations, such as to newspaper offices or hospitals.
798. Toy, sporting good manufacturing not classified in other divisions.

799. Other Manufacturing not classified above. Included are plants manufacturing carbon and stencil paper.
790. Other Manufacturing; insufficient information available to classify further.

70. MANUFACTURING PROPERTY: UNCLASSIFIED

708. General maintenance shop not elsewhere classified.
709. Manufacturing Property not classified above.
700. Manufacturing Property; insufficient information available to classify further.

8. STORAGE PROPERTY

Storage properties are all buildings, structures, or areas utilized primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals; and incidental servicing, processing, and repair operations,

Included are the resale (sale without transformation) of goods to businesses, institutions, and government, such as the resale of industrial and construction materials, machinery, and equipment; farm machinery, implements, and supplies; and business and professional equipment. Also included are warehousing, grading, sorting, breaking bulk, and repacking which are associated with reselling. Repacking in air-tight containers is canning and is classified in subdivisions 713 and 714.

Storage properties are characterized by the presence of relatively small numbers of persons in proportion to the area. Any new use which increases the number of occupants to a figure comparable with other classes of properties changes the classification of the building to that of the new use. If substantial mercantile or office operations exist (10 customers or more present at busy period), reclassify where appropriate in major division 5 (Store, Office Property).

81. AGRICULTURAL PRODUCTS STORAGE

811. Seeds, beans, nuts, sllage storage In bulk. Storage of seeds, beans, grain, natural feed, hay, or nuts in bulk in bins, silos, or piles in the open or in cribs. Excluded are storage in barns (815) and storage in elevators (816).
812. Boxed, crated, packaged agricultural products storage. Agricultural products stored in boxes, crates, or cartons, regardless of packaging material or container size.

813. Loose, bagged agricultural products storage. Agricultural products stored in bags of any material or size, or stored loose. Excluded are bagged products inside cardboard boxes (812), loose tobacco storage (814), and bulk storage of seeds, feeds, beans, nuts, and grain (811).
814. Loose, baled tobacco storage. Tobacco stored in loose quantities or in bales, crates, hogsheads, or barrels before or after auction, but before manufacture of finished tobacco products. Excluded are tobacco curing sheds (656) and storage during processing (725).
815. Barns, stables. Included are facilities associated with farms, zoos, or wildlife preserves whether for providing restraint or protection for animals or for storage of feed. Excluded are silos (811).
816. Grain elevators. Included are soy bean elevators.
817. Livestock storage. Storage of livestock at any point beyond the raising ranch or farm. Included are rail and truck stockyards and other livestock pens and yards.
818. Agricultural supply storage. Storage of materials for agricultural purchase. Included are hay, feed, seed, fertilizer, and nonmotorized farm implement stores.
819. Agricultural Products Storage not classified above.
810. Agricultural Products Storage; insufficient information available to classify further.

82. TEXTILE STORAGE

821. Baled cotton storage. included are cotton compresses.
822. Baled wool, worsted storage.
823. Baled silk, synthetic fiber storage.
824. Baled jute, hemp, flax, sisal, other mixed or blended fiber storage.
825. Cloth, yarn storage.
826. Wearing apparel, garments, finished textile storage.
827. Leather, leather products storage.
828. Fur, skin, hair products storage.
829. Textile Storage not classified above.
820. Textile Storage; insufficient information available to classify further.

83. PROCESSED FOOD, TOBACCO STORAGE

831. Packaged foodstuff storage. Foodstuffs stored in cardboard or paper packages.

- 832. Canned or bottled food, soft drink storage. Storage of canned or bottled foodstuffs. Included are plants which bottle materials made elsewhere.
- 833. Loose, bagged processed food storage. Processed foods stored in bulk or in bags of any material or size. Excluded are animal feed in hay, grain, seed, and feed stores (818), natural animal feed stored in bulk (81 I), and natural animal feed stored in bags (813).
- 834. Food locker plants.
- 835. Cold storage.
- 836. Bulk sugar storage.
- 837. Bulk flour, starch storage.
- 838. Packaged tobacco product storage. Storage of finished tobacco products in any type package of any type material.
- 839. Processed Food, Tobacco Storage not classified above.
- 830. Processed Food, Tobacco Storage; insufficient information available to classify further.

84. PETROLEUM PRODUCTS, ALCOHOLIC BEVERAGE STORAGE

Included are gases of all kinds, flammable liquids, and combustible liquids, except those specifically mentioned in division 86 below, such as 865 for paint and varnish.

- 841. Flammable, combustible liquid tank storage. Included are airport fuel dispensing systems, bulk plants, terminals, and tank farms. Excluded are refinery tankage (767) and reservoir at oil wells (674).
- 842. Gasometer, cryogenic gas storage.
- 843. LP-Gas bulk plant. Excluded is filling individual cylinders for the public (571).
- 844. Missile, rocket fuel storage. Included are storage facilities at the manufacturing plant, launching site, and intermediate fixed storage locations.
- 845. Package petroleum products storage.
- 846. Alcoholic beverage storage. Storage of liquor, beer, wine, and other alcoholic beverages, whether in barrels, casks, kegs, or bottles.
- 849. Petroleum Products, Alcoholic Beverage Storage not classified above.
- 840. Petroleum Products, Alcoholic Beverage Storage; insufficient information available to classify further.

85. WOOD, PAPER PRODUCTS STORAGE

- 851. Lumberyard, building materials storage. Storage of lumber and building materials.

Excluded are storage of timber, pulpwood, logs, and wood fuel while in the forest (662) or at sites awaiting use (856); and wood chips (666).

- 852. Wood products, furniture storage.
- 853. Fiber products storage. Storage of products made from fibers of ordinary combustible materials, such as fiberboard; or noncombustible fiber materials with combustible components such as fiberglass insulation. Included are pulp, felt, excelsior, and rope.
- 854. Rolled paper storage.
- 855. Paper, paper products storage. Included are cartons, bags, waste paper, and baled paper. Excluded are rolled paper (854) and pulp storage (853).
- 856. Timber, pulpwood, logs, wood fuel. Included are areas where timber, pulpwood, logs, and wood fuel are stored in bulk after leaving the forest and before processing or use. Excluded is storage in the forest (662).
- 859. Wood, Paper Products Storage not classified above.
- 850. Wood, Paper Products Storage; insufficient information available to classify further.

86. CHEMICAL OR PLASTIC, CHEMICAL OR PLASTIC PRODUCT STORAGE

For the purpose of this classification, a chemical is a material which has had or will have a controlled change in its molecular structure or composition, not involving polymerization: white a plastic is a material whose molecule has been polymerized.

- 861. Industrial chemical storage.
- 862. Hazardous chemical storage. Excluded are radioactive materials (division 61).
- 863. Plastic, plastic product storage.
- 864. Fertilizer storage. Excluded are fertilizer storage in connection with agricultural supply storage (818).
- 865. Paint, varnish storage.
- 866. Drug, cosmetic, pharmaceutical storage.
- 867. Rubber, rubber products storage.
- 868. Photographic film storage. Storage of photographic films, new or exposed, including motion picture film, X-ray film, industrial film, and hobby film. Included are picture distribution facilities such as film exchanges.
- 869. Chemical or Plastic, Chemical or Plastic Product Storage not classified above.
- 860. Chemical or Plastic, Chemical or Plastic Product Storage; insufficient information available to classify further.

87. METAL, METAL PRODUCT STORAGE

871. Basic metal form Storage.
872. Metal parts storage (often in trays or bins, or on racks).
873. Hardware Storage.
Included are storage of auto parts, auto accessories, tools, and plumber's supplies.
874. Machinery Storage.
875. Electrical appliance, supply storage.
876. Finished metal products Storage (Often in cartons or crates).
877. Scrap, junkyards.
included are nonmetal waste and scrap, such as wastepaper and tires. Excluded are refuse dumping areas (932).
879. Metal, Metal Products Storage not classified above.
870. Metal, Metal Products Storage; insufficient information available to classify further.

88. VEHICLE STORAGE

881. Residential parking garage.
Parking of motor vehicles in one-story residential garages. Included are dwelling garages whether separate or attached. Excluded are general vehicle parking garages (882).
882. General vehicle parking garage.
Parking of vehicles of various ownership in facilities under the direction of one management. Excluded are facilities for repair of motor vehicles (573), dwelling or one-story residential garages (881), and garages for public works vehicles and dump trucks (884).
883. Bus, truck, auto fleet, automobile dealer storage.
Parking of motor vehicles of the same ownership and management. included are truck parking, auto fleet parking., bus parking, trackless trolley parking, and taxicab parking. Excluded are machinery and equipment storage (884).
884. Heavy machine, equipment storage.
Parking of road, farm, and contracting equipment in a suitably managed location. included are storage of public works vehicles, construction and earth-moving equipment, dump trucks, and cranes.
885. Boat, ship storage.
A marine parking "garage." Docking and mooring facilities for boats in the water. Included are launching facilities and storage of boats and ships for relatively long periods of time. Excluded are yacht club buildings (143), boat repairing yards (782), and marine service stations (577).
886. Aircraft hangar.

887. Railway storage.
Included are locomotive storage, car storage, and track repair equipment storage, and all fixed railroad storage facilities. Excluded are railroad yards and signaling and switching facilities (division 95).
888. Fire stations.
889. Vehicle Storage not classified above.
880. Vehicle Storage; insufficient information available to classify further.

89. GENERAL ITEM STORAGE

891. General warehouse.
Excluded are warehouses storing mainly wood furniture (852), warehouses storing mainly foodstuffs (division 83), and warehouses storing mainly textiles (division 82).
892. Bagged mineral products storage.
Included are storage facilities for cement, lime and gypsum.
893. Packaged mineral products storage.
included are storage facilities for glass, clay products, pottery and earthenware.
894. Freight terminal.
895. Coal, coke briquette, charcoal storage.
Storage of solid fuels in bags, boxes, or bulk. Excluded are wood fuel storage facilities (662).
896. Military stores, national defense storage not elsewhere classified.
897. Ice storage.
Storage of natural and manufactured ice. included are separate, detached, portable coin-operated storage, and dispensing units.
898. Wharf, pier.
899. General Item Storage not classified above.
890. General Item Storage; insufficient information available to classify further.

80. STORAGE PROPERTY: UNCLASSIFIED

808. Tool shed.
809. Storage Property not classified above.
800. Storage Property; insufficient information available to classify further.

9. SPECIAL PROPERTY

These properties are not readily classified in any of the preceding major divisions. They include mainly outdoor properties.

Fixtures such as signs, fences, and poles which are usually on outdoor property are not separate fixed property uses. The fixed property use upon which this item is located should be identified. The sign, fence, or fixture, if involved in ignition, should be identified in the appropriate sections of lines J and L.

91. CONSTRUCTION, UNOCCUPIED PROPERTY

Property under construction or demolition by contractors or governmental authorities.

Included are structures where work is being done by specialist contractors such as carpenters, plumbers, masons, plasterers, and technicians.

Excluded are structures where the remodeling, repair, construction, or demolition is being done by the staff or employees of a property manager or areas where the normal operation of an enterprise, such as clearing earth for mining, requires such activity.

- 911. Building under construction.
- 912. Building under demolition.
- 913. Construction, structure other than buildings.
For nonstructures, use 981.
- 914. Demolition, structure other than buildings.
For nonstructures, use 981.
- 915. Vacant property.
Property without contents. Excluded is idle property (917).
- 916. Contractor's shed.
- 917. idle property.
Idle property with some or all contents of previous occupancy. Excluded is vacant property (915).
- 918. Building under renovation.
Included are vacant or idle properties actively undergoing renovation. Excluded are buildings which are being renovated while still occupied (classify as to their fixed property use).
- 919. Construction, Unoccupied Property not classified above.
- 910. Construction, Unoccupied Property; insufficient information available to classify further.

92. SPECIAL STRUCTURES

Classification here is only for fires in these structures. Where fires involve mobile property using these structures, classify in division 94, 95, and 96 as appropriate.

- 921. Bridge, trestle.
Included are overhead or elevated structures, such as overpasses, elevated roads, and railways.
- 922. Tunnel.
- 924. Toll station.
- 925. Shelter.
included are storm, tornado, bomb, fallout, weather, and bus shelters.
- 926. Outbuilding, excluding garage.
Included are privies.

927. Outdoor telephone booth.

928. Aerial tramway.

Included are ski lifts and chair lifts.

929. Special Structures not classified above.

920. Special Structures; insufficient information available to classify further.

93. OUTDOOR PROPERTIES

931. Open land, field.

included are grass, brush, and light ground cover, campsites without utilities, and parks. Excluded are forests (661), felled timber and log piles in the forest (662), farm crops (665), and vacant lots (936).

932. Dump, sanitary landfill.

Included are refuse disposal areas and dumps in open ground.

933. Public mailbox.

934. Cemetery.

935. Campsite with utilities.

936. Vacant lot.

Included are uncared for plots of land. Excluded are graded and cared for plots of land (931)

939. Outdoor Properties not classified above.

930. Outdoor Properties; insufficient information available to classify further.

94. WATER AREAS

941. in open sea, tidal waters.

942. Within designated port, channel, anchorage.

943. Alongside quay, pier, pilings.

Excluded are flammable liquid or gas loading and unloading facilities (944).

944. At flammable liquid or gas loading, unloading facility.

945. Aground.

Indicate distance to nearest shoreline.

946. inland water area.

included are lake, pond, river or stream, and the like.

949. Water Areas not classified above.

940. Water Areas; insufficient information available to classify further.

95. RAILROAD PROPERTY

included are railroad, subway, railway, trolley, and other fixed rail property.

951. Railroad right of way.

Included are the areas marked by fence or 30 feet beyond ballast on each side, outside of switch yards, terminals, and sidings.

952. Switch yard, marshalling yard.

953. Siding.

The spurs within an industrial plant or other property.

- 954. Railroad signaling, switch control equipment location.
- 959. Railroad Property not classified above.
- 950. Railroad Property; insufficient information available to classify further.

96. ROAD, PARKING PROPERTY

- 961. Limited access highway, divided highway.
- 962. Paved public street.
Included are associated parallel or diagonal parking on right of way. Excluded are limited access and divided highways (961).
- 963. Paved private street, way.
included are paved driveways. Excluded are uncovered parking areas (965).
- 964. Unpaved street, road, path.
included are unpaved driveways.
- 965. Uncovered parking area.
Included are open parking lots, rest stops, and open car stacking mechanisms. Excluded are driveways (963), covered parking garages (882), and campsites with utilities (935).

97. AIRCRAFT AREAS

- 971. In flight.
- 972. On runway.
Included are the approach and overrun areas.
- 973. On taxiway, uncovered parking area, maintenance area.
Included are all airport areas other than runway or loading ramp. Excluded are aircraft hangars (886).

- 974. At loading ramp.
- 979. Aircraft Areas not classified above.
- 970. Aircraft Areas; insufficient information available to classify further.

98. EQUIPMENT OPERATING AREAS

- 981. Construction site.
Excluded are oil and gas fields (982), and building or structure construction and demolition sites (division 91).
- 982. 011, gas field.
- 983. Pipeline, power line right of way.
- 989. Equipment Operating areas not classified above.
- 980. Equipment Operating Areas; insufficient information available to classify further.

90. SPECIAL PROPERTIES: UNCLASSIFIED

- 909. Special Properties not classified above.
- 900. Special Properties; insufficient information available to classify further.

00. FIXED PROPERTY USE: UNCLASSIFIED

- 008. Fixed Property Use not applicable.
- 009. Fixed Property Use not elsewhere classified.
- 000. Fixed Property Use undetermined or not reported.

Coded Examples

Fire in a small appliance repair shop, without sales.

C	FIXED PROPERTY USE	IGNITION FACTOR
	U-Fix-It-Shop 5 3 8	

Vehicle fire on an interstate highway.

C	FIXED PROPERTY USE	IGNITION FACTOR
	Vehicle Fire on Freeway 9 6 1	

Ignition Factor

Definition

The condition or situation that allowed the heat source and combustible material to combine to start a fire. For example, the ignition factor can be a deliberate act, a mechanical failure, or an act of nature.

Purpose

The ignition factor is crucial as a guide to fire prevention, because it can indicate whether the type of fire is potentially preventable by better education, inspections, investigations and prosecutions, or some other strategy. The ignition factor is also part of the description of the entire sequence which consists of Area of Fire Origin, Equipment Involved in Ignition, Form of Heat of ignition, and Type and Form of Material Ignited. The Analysis of how these factors interact will provide valuable information on how the chain of events leading to ignition might best be broken.

Entry

Record the factor which best explains why the heat source and the material ignited were able to combine to initiate the fire. If the incident is a non-fire incident, leave blank.

Examples

An emergency medical call.

C	FIXED PROPERTY USE	IGNITION FACTOR	Not a fire
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An exposure fire.

C	FIXED PROPERTY USE	IGNITION FACTOR	Exposure fire
---	--------------------	-----------------	---------------

Failure to clean chimney.

C	FIXED PROPERTY USE	IGNITION FACTOR	Creosote build-up
---	--------------------	-----------------	-------------------

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IGNITION FACTOR

1. INCENDIARY

Legal decision or physical evidence indicates that the fire was deliberately set.

- 11. Incendiary, not during civil disturbance.
- 12. Incendiary, during civil disturbance.

2. SUSPICIOUS

Circumstances indicate the possibility that the fire may have been deliberately set, multiple ignitions were found, or there were suspicious circumstances and no accidental or natural ignition factor could be found.

- 21. Suspicious, not during civil disturbance.
- 22. Suspicious, during civil disturbance.

3. MISUSE OF HEAT OF IGNITION

- 31. Abandoned, discarded material. included are discarded cigarettes, cigars, and the like.
- 32. hawking, Falling asleep.
- 33. inadequate control of open fire. Included are smoking out animals.
- 35. Cutting, welding too close to.
- 36. Children with, children playing.
- 37. Unconscious; mental, physical impairment; drug, alcohol stupor.
- 39. Misuse of Heat of Ignition not classified above.

30. Misuse of Heat of ignition; insufficient information available to classify further.

4. MISUSE OF MATERIAL IGNITED

- 41. Fuel spilled, released accidentally.
- 42. improper fueling technique.
- 43. Flammable liquid used to kindle fire.
- 44. Washing part, cleaning, refinishing, painting.
- 45. improper container.
- 46. Combustible too close to heat.
- 47. improper storage.
- 48. Children with, child playing.
- 49. Misuse of Material ignited not classified above.
- 40. Misuse of Material ignited; insufficient information available to classify further.

5. MECHANICAL FAILURE, MALFUNCTION

- 51. Part failure, leak, break.
- 52. Automatic control failure.
Included are delayed ignitions of oil burners.
- 53. Manual control failure.
- 54. Short circuit, ground fault.
- 55. Other electrical failure.
- 56. Lack of maintenance, worn out.
Included are failure to clean; grease or lint build-ups; chimneys or stove pipes.
- 57. Backfire.
Included are ignitions outside the combustion chamber. Excluded are fires originating as a result of hot catalytic converters (61).
- 59. Mechanical Failure, Malfunction not classified above.
- 50. Mechanical Failure, Malfunction; insufficient information available to classify further.

6. DESIGN, CONSTRUCTION, INSTALLATION DEFICIENCY

- 61. Design deficiency-
Included are catalytic converters.
- 62. Construction deficiency.
- 63. installed too close to combustibles.
- 64. Other installation deficiency.
- 65. Property too close to.
Included are exposure fires.
- 69. Design, Construction, installation deficiency not classified above.
- 60. Design, Construction, installation deficiency; insufficient information available to classify further.

7. OPERATIONAL DEFICIENCY

- 71. Collision, overturn, knockdown.
- 72. Accidentally turned on, not turned off.
- 73. Unattended.
- 74. Overloaded.
- 75. Spontaneous heating.
- 76. improper startup, shutdown procedures.
- 79. Operational Deficiency not classified above.
- 70. Operational Deficiency; insufficient information available to classify further.

8. NATURAL CONDITION

- 81. High wind.
- 82 Earthquake.
High water, Including floods.
- 84: Lightning.
- 89. Natural Condition not classified above.
- 80. Natural Condition; insufficient information available to classify further.

9. OTHER IGNITION FACTOR

- 91. Animal.
- 92. Rekindled from a previous fire.
- 99. Other Ignition Factor not classified above.
- 00. ignition Factor undetermined or not reported.

Coded Examples

An emergency medical call.

C	FIXED PROPERTY USE	IGNITION FACTOR
		Not a fire

An exposure fire.

C	FIXED PROPERTY USE	IGNITION FACTOR
		Exposure fire 615

Failure to clean chimney.

C	FIXED PROPERTY USE	IGNITION FACTOR
		Creosote build-up 516

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT

Correct Address

Definition

The exact location of the incident, which may be a street address or directions from a recognized landmark, or an intersection of two roadways. The information must be specific, complete, accurate, and consistent.

Purpose

Incident address information is required at the local government level for establishing a legal report reference. As a matter of privacy rights, the address is retained at the individual fire department and at the state levels, but not at the national level. This information may also be useful for identifying local problems, such as checking for multiple incidents at the same address, checking zip code and census tract entries.

Entry

The address identifies the exact location of the fire or incident. If additional space is required to describe the address properly, use the Remarks section. 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. It is important that a person reading the report know where the incident occurred. It is recommended that you develop a standard method of entering address information.

The following list gives standard abbreviations to use for the address of the incident:

AV - Avenue	LP - L o o p	E - East
BL - Boulevard	PY - Parkway	N - North
CL - Circle	PL - Place	S - South
CT - court	RD - Road	W - West
DR - Drive	RT - Route	N E - Northeast
EX - Expressway	SQ - Square	N W - Northwest
FY - Freeway	ST - Street	S E - Southeast
HY - Highway	TK - Turnpike	SW - Southwest
LN - Lane	WY - Way	

Examples

A house fire at 135 Northwest Pleasant Street.

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
	135 NW Pleasant St		

A grass fire by Maple Street about 1/2 mile east of U.S. 89.

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
	Maple St; 1/2 mile E. of US 89		

Zip Code

Definition

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

Purpose

This data element completes the full address of the incident and provides a means of linking fire incident data to other geographic and population factors for comparative analysis at the local and regional levels.

Entry

Enter the first five digits of the Postal Zip Code number for the address of the property involved in the incident. For locations using a nine digit zip code, use the first (left most) five numbers.

Example

A house fire occurs in an area with the zip code 19701.

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
		1 9 7 0 1	

A fire alarm in a business building, with a zip code of 32145-6113, malfunctions and the fire department responds.

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
		3 2 1 4 5	

Census Tract

Definition

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

Purpose

This data element provides a means of cross reference and comparative analysis of incidents with the geographic and population information that is available from the U.S. Census Bureau.

Entry

Enter the number for the census tract in which the property involved in the incident is located. 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, if they are available.

Examples

A location having a census tract of 1066.01 is:

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
			1 0 6 6 0 1

A location having a census tract of 3 is:

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
			0 0 0 3 0 0

A location having a census tract of 8014.03 is:

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
			8 0 1 4 0 3

A location having a census tract of 302 is:

D	CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
			0 3 0 2 0 0

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E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT.

Occupant Name

Definition

The full name of the person, company, or agency that occupies the property where the incident occurred.

Purpose

The occupant name is required at the local government level for legal reference. Occupant name also provided a basis for long-term analysis in recognizing patterns of repeated fires involving the same person in the same or different locations over a period of time,

Entry

Enter the full name of the person, company or agency that occupies the area where the incident occurred. For businesses, also enter the manager's name, or that of some responsible person. Enter the name of the company or agency as normally written. Enter a person's name in the format last, first, middle initial. If the Occupant Name is not known, several available resources may be checked for information, such as street directory publications, utility company records, other public agencies and the like. Vacant, unoccupied or abandoned is explained in remarks.

Examples

The occupant was Lawrence P. Ford.

E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT.
	Ford, Lawrence P.		

The occupant was ABC Moving Co.

E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT.
	ABC Moving Co., Marvin Horn, Manager		

Telephone

Definition

The telephone number of the occupant, including the area code.

Purpose

This number may assist later in gaining additional information from the occupant.

Entry

The area code and telephone number are entered in the block. Enter "n/a" if there was no telephone.

Example

The occupant's telephone number was 302-555-0367.

E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT.
		(302) 555-0367	

Room or Apartment

Definition

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

Purpose

This number is part of the address information when the incident occurred within a room or apartment when there are several in a complex.

Entry

Enter the room or apartment number in the block. Enter "n/a" if not applicable.

Examples

The incident occurred in a one family dwelling.

E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT. N/A
---	---------------------------------	-----------	---------------------

The incident occurred in apartment 2B.

E	OCCUPANT NAME (LAST, FIRST, MI)	TELEPHONE	ROOM OR APT. #2B
---	---------------------------------	-----------	---------------------

OWNER NAME (LAST, FIRST, MI)	ADDRESS	TELEPHONE
------------------------------	---------	-----------

Owner Name

Definition

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

Purpose

The property owner's name is also required at the local government level for contacting the owner in connection with the fire and for legal referral. Also, this information may be useful in the analysis of repeated fires in buildings under the same ownership. This information is gathered for local use only.

Entry

Enter the full name of the person, company or agency as normally written. Never use "same as above" on this line, even if the occupant and owner are the same. Enter a person's name in the format last, first, middle initial. If the Owner Name is not known, several available resources may be checked for information, such as street directory publications, utility company records, other public agencies and the like.

Examples

The owner was James C. Caldwell.

OWNER NAME (LAST, FIRST, MI) Caldwell, James C	ADDRESS	TELEPHONE
--	---------	-----------

The owner was Jones' Feed and Seed.

OWNER NAME (LAST, FIRST, MI) Jones' Feed & Seed	ADDRESS	TELEPHONE
---	---------	-----------

Address

Definition

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

Purpose

This information may be of value to local authorities for contacting the owner in connection with the fire and in making long-term analysis of reported fires in buildings under the same ownership.

Entry

Enter the address of the owner of the property where the incident occurred. Do not use "same as above." If the owner lives outside the city, include the city, state and zip code.

Example

The owner lives at 14 Delmar Drive.

OWNER NAME (LAST, FIRST, MI)	ADDRESS 14 Delmar Drive	TELEPHONE
------------------------------	-----------------------------------	-----------

Telephone

Definition

The telephone number of the owner of the property.

Purpose

Provides a means for contacting the property owner to obtain additional information.

Entry

Enter the area code and telephone number of the owner. Enter "n/a" if there is no telephone.

Example

The owner's telephone number is 302-555-4241.

OWNER NAME (LAST, FIRST, MI)	ADDRESS	TELEPHONE (302) 555-4241
------------------------------	---------	-----------------------------

METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
-----------------------------	----------	-------	------------

Method of Alarm From Public

Definition

The method of alarm from the public is intended to identify the first device used to notify the fire department of an incident. Basic devices include the telephone, municipal alarm system, private alarm system, radio from a police or fire vehicle, and people walking into a fire station.

Purpose

This information can be useful for studying the use and effectiveness of each method of notifying the fire department. This information is also useful for analyzing the effects of different types of alarm systems to determine if they increase or decrease false alarms.

Entry

Record the method by which the fire department or the alarm center first became aware of the incident. For local use, record the telephone number of the calling party or the number of the alarm box if either of these methods were the primary means of receiving the alarm. Do not record the means by which the individual fire companies were notified of the incident by the alarm center.

Examples

The alarm came in from Box 2883.

METHOD OF ALARM FROM PUBLIC Alarm Box #2883	DISTRICT	SHIFT	NO. ALARMS
---	----------	-------	------------

A neighbor (telephone 803-555-5482) reported the incident to the fire department.

METHOD OF ALARM FROM PUBLIC Telephone (803) 555-5482	DISTRICT	SHIFT	NO. ALARMS
--	----------	-------	------------

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METHOD OF ALARM FROM PUBLIC

- | | |
|---|---|
| <p>The method by which the first fire department person is notified of the incident.</p> <ol style="list-style-type: none"> 1. Telephone direct to fire department.
The reporting person direct dials the fire alarm center. Included are commercial and private telephone facilities. "911" systems are only included if the fire alarm center receives all "911" calls directly. For tie-line calls, see 7. 2. Coded signal municipal fire alarm system.
Included are telegraph systems, radio systems, and auxiliary connection to them. 3. Private fire alarm system.
Included are signals received from central stations and remote stations. 4. Radio.
Included are fires reported by radio from vehicles on fire department or police department frequencies directly to alarm headquarters. 5. Direct report to a fire station (verbal).
Included are fires seen from or reported to a fire station. | <ol style="list-style-type: none"> 6. No alarm received-no response.
Included are fires reported to or observed by firedepartment personnel afterthey have been extinguished by others and are cold. 7. Telephone tie-line to fire department.
The reporting person direct dials another emergency agency. Included are all calls received over a direct telephone tie-line from another emergency call center or facility tied directly to the fire department. The "911" system is included here when the civilian gets a police call center or another call center and his call is transferred to the fire alarm center. 8. Voice signal municipal fire alarm center.
Included are all telephone type fire alarm systems. 9. Method of Alarm from the Public not classified above. 0. Method of Alarm from the Public undetermined or not reported. |
|---|---|

Coded Examples

The alarm came in from Box 2883.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
	Alarm Box #2883	2		

A neighbor (telephone 803-555-5482) reported the incident to the fire department.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
	Telephone (803) 555-5482	1		

District

Definition

The number or other code which identifies a fire company or station response area or other area as developed by your department. This data element is a very powerful tool for local fire department use. It has a maximum length of three positions. These positions can contain any combination of letters or numbers as designated by a local fire department.

Purpose

This data element permits your fire department to develop its own method of locating the frequency and severity of incidents by district. District numbers may identify specific townships, contract service areas, wards, station response areas, or any other boundary that a department may wish to use.

Entry

Enter the fire department assigned District code for the specific district, if any, where the incident occurred. Be consistent in entering the code numbers. It is best if you fill all three positions of the data element to avoid confusion by the person processing the report. Incorrect or inconsistent entry by a fire department may cause incorrect data to be shown on your feedback reports.

If the incident is out of the reporting fire department's jurisdiction, enter "O/J" or "OUT."

The following combinations of letters and numbers should be used cautiously for District numbers as they can easily be confused by data entry operators:

- Letter "B"/Number "8"
- Letter "D"/Number "0" or Letter "0"
- Letter "O"/Number "0"
- Letter "Z"/Number "2"
- Letter "G"/Number "6"
- Letter U/Number "0" or Letter "0"

Examples

An incident occurs in District 2.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
		10102		

An incident occurs in District 102.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
		11012		

Shift

Definition

The identification or designation of the shift on duty which responds to the specific incident. This applies only to fire departments with shift or separate work force arrangements.

Purpose

For determining workload balances and staffing requirements.

Entry

Where applicable, enter the designation of the shift on duty which 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.

Examples

Shift #3 responds to an incident.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
				3

Shift #4 responds to an incident.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
				4

Number of Alarms

Definition

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

Purpose

The number of alarms provides one way to measure incident severity. Knowing the number of alarms may be useful for local analysis of resource requirements. The number of alarms also may be related to mutual aid support.

Entry

Enter the number of alarms transmitted for the incident. This information is for local fire department use only. Where multiple alarms are sounded, the time for each alarm should be recorded in the Remarks section.

Examples

A three alarm fire -in a Business District.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
				3

A one alarm Hazardous Materials Incident.

G	METHOD OF ALARM FROM PUBLIC	DISTRICT	SHIFT	NO. ALARMS
				1

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H	NUMBER FIRE SERVICE PERSONNEL RESPONDED	NUMBER ENGINES RESPONDED	NUMBER AERIAL APPARATUS RESPONDED	NUMBER OTHER VEHICLES RESPONDED
---	---	--------------------------	-----------------------------------	---------------------------------

Number of Fire Service Personnel Responded

Definition

The total complement of fire officers and fire fighters who respond. This includes all fire personnel assigned to the incident whether they arrive at the scene or were cancelled before arrival at the scene.

Purpose

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

Entry

Enter the total number of fire officers and fire service personnel who respond.

Example

Sixteen fire fighters respond.

H	NUMBER FIRE SERVICE PERSONNEL RESPONDED	NUMBER ENGINES RESPONDED	NUMBER AERIAL APPARATUS RESPONDED	NUMBER OTHER VEHICLES RESPONDED
	01116			

Number of Engines Responded

Definition

The total number of engines (pumpers) which respond.

Purpose

This information is useful for maintenance scheduling and determining future engine needs.

Entry

Enter the total number of engines which respond.

Example

Two 750 G.P.M. pumpers respond.

H	NUMBER FIRE SERVICE PERSONNEL RESPONDED	NUMBER ENGINES RESPONDED	NUMBER AERIAL APPARATUS RESPONDED	NUMBER OTHER VEHICLES RESPONDED
		01012		

Number of Aerial Apparatus Responded

Definition

The total number of aerial apparatus units which respond.

Purpose

This information is useful for maintenance scheduling and determining future aerial apparatus purchasing needs.

Entry

Enter the total number of aerial ladders, elevated platforms, or similar apparatus which respond.

Example

One aerial ladder responds.

H	NUMBER FIRE SERVICE PERSONNEL RESPONDED	NUMBER ENGINES RESPONDED	NUMBER AERIAL APPARATUS RESPONDED	NUMBER OTHER VEHICLES RESPONDED
			0 0 1	

Number of Other Vehicles Responded

Definition

The total number of other vehicles that respond. This entry includes the fire chief's vehicle and specialized apparatus responding to the scene. Specialized equipment may include rescue vehicles, ambulances, foam trucks, tankers, field-woods-brush equipment, compressors, command posts, cranes and fuel tenders.

Purpose

This information is useful for maintenance scheduling and determining future other vehicle needs.

Entry

Enter the total number of vehicles which respond, other than engines and aerial apparatus. Write the types of these "other" vehicles in the box or in the Remarks section. Local policy should establish which vehicles are to be counted.

Example

The fire chief responds to a fire incident.

H	NUMBER FIRE SERVICE PERSONNEL RESPONDED	NUMBER ENGINES RESPONDED	NUMBER AERIAL APPARATUS RESPONDED	NUMBER OTHER VEHICLES RESPONDED
				0 0 1

The next section on the form, COMPLETE IF CASUALTY, is to be completed for each incident in which an injury or fatality occurs.

When a fire fighter casualty occurs, a fire service casualty form (NFIRS-3) should be completed for each casualty. If a civilian casualty occurs, an NFIRS-2 form should be completed.

NUMBER OF INJURIES				NUMBER OF FATALITIES			
FIRE SERVICE			OTHER	FIRE SERVICE			OTHER

Number of Incident-Related Injuries

Definition

The number of people injured, either as a result of an incident or the action of handling the incident. An injury is physical damage to a person that requires either: a) treatment by a practitioner of medicine within One year of the incident, orb) at least one day of restricted activity immediately following the incident. An injury is a casualty.

Purpose

The number of civilian injuries is an important measure of fire protection effectiveness. This information can be correlated with occupancy type, structural conditions, and other data to help understand how to reduce future fire injuries. Furthermore, this information can be used to reduce fire fighter injuries through better equipment, training and physical conditioning.

Entry

Identify and record the number of people injured, whether as a result of a fire or other incident. Enter separately the number of fire service personnel and the combined number of civilians or other emergency personnel injured. Include those people who were injured while responding to or returning from the incident. If the injury occurred on fire department property after the apparatus was back in service, do not include it in this count. Fire fighter injuries which occur during training or elsewhere should be collected using the fire fighter casualty report (NFIRS-3). Remember when reporting a fire fighter casualty on this type of incident, an incident report must be filled out, complete with an incident number. Details on each incident-related civilian and other emergency personnel injury must be recorded on an NFIRS-2 form. Details on fire fighter injuries must be recorded on an NFIRS-3 form.

Example

One civilian and one fire fighter are injured,

NUMBER OF INJURIES				NUMBER OF FATALITIES							
FIRE SERVICE		0 0 1	OTHER		0 0 1	FIRE SERVICE			OTHER		

Number of Incident-Related Fatalities

Definition

The number of people fatally injured (dead) at the scene, or people who die within one year of the incident as a result of their injuries. A fatality is a casualty.

Purpose

The number of fatalities is another important measure of fire protection effectiveness. This information can be correlated with occupancy type, structural conditions, and other data to help understand how to reduce future fire fatalities. Furthermore, this information can be used to reduce fire fighter fatalities through better equipment, training and physical conditioning.

Entry

Record the number of fatalities at the scene which occurred as a result of the incident. Make a separate entry for the number of fire service personnel and the combined number of civilians or other emergency personnel. Include those fatalities which occurred responding to and returning from the reported incident. If the fatality occurred on fire department property after the apparatus was in service a new incident would have to be created to include the fire service person in the casualty statistics. The details of civilian or other emergency personnel fatalities must be recorded on the NFIRS-2 form. Details of fire service fatalities must be recorded on the NFIRS-3 form.

Example

Two civilians are killed in an apartment fire.

NUMBER OF INJURIES				NUMBER OF FATALITIES			
FIRE SERVICE			OTHER	FIRE SERVICE			OTHER
				0	0	0	0
				0	0	0	2

The next section on the form, COMPLETE FOR ALL FIRES, is composed of lines, J,K,L and M. This section includes four of the five causal factors which together describe the cause of the fire: "Equipment Involved in Ignition (if any)," "Form of Heat of Ignition," "Type of Material Ignited," "Form of Material Ignited." Sometimes the, "Area of Fire Origin" is referred to as a sixth causal factor. Also included are "Complex," "Mobile Property Type," "Method of Extinguishment," "Level of Fire Origin," and "Estimated Dollar Loss."

J	COMPLEX	MOBILE PROPERTY TYPE		
K	AREA OF FIRE ORIGIN		EQUIPMENT INVOLVED IN IGNITION	
L	FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED	
M	METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)	

COMPLETE FOR ALL FIRES

COMPLEX

Definition

A property meeting all three of the following criteria:

- I. a. A single building containing two or more specific "fixed property uses" listed on pages 115-136,
 - b. More than one building of the same or different "fixed property use" listed on pages 115-136.
 - or
 - c. Other multiuse property
 - and
- II. Located within a continuous boundary
- and
- III. Operated under one business management or ownership.

If the complex itself is nested inside another complex (e.g., hotel at an airport, or shopping center on a military reservation), then record the complex managed by those who manage the fixed property use where the fire started. For example: (a) a "hotel" at an airport leased to and managed by a hotel chain, use "Hotel Complex"; and (b) a "hotel" at a university managed by the university, use "Educational Complex."

Purpose

The complex use designation captures data on the overall use of property so that all specific uses of segments of that property can be linked to its general use.

Entry

Describe the complex use in your own words and complete with appropriate codes.

Examples

A fire in a one-family dwelling.

J	COMPLEX	MOBILE PROPERTY TYPE		
	Single Family Dwelling			

A fire in an office building.

J	COMPLEX	MOBILE PROPERTY TYPE		
	Office Building			

COMPLEX

- 11. Public recreation complex.
Included are zoos, amusement parks, and general recreational parks.
- 12. Stadium, exhibition hall complex.
Included are ballparks, racetracks, sports gardens, and armories.
- 14. Club complex.
Included are golf clubs, tennis clubs, and country clubs.
- 20. Educational complex.
Included are schools, colleges, and universities.
- 33. Medical care complex.
Included are hospitals, medical centers, and mental institutions.
- 34. Prison complex.
- 40. Business with residential complex.
Included are apartments over stores.
- 41. Dwelling complex (one-and two-family).
- 42. Apartment complex.
- 44. Hotel complex.
Included are motels, inns, and lodges.
- 47. Mobile home park complex.
- 58. Shopping complex.
Included are department stores, malls, discount houses, and shopping centers. Also included are groups of business and commercial establishments which may contain theaters and other places of assembly.
- 59. Office complex.
Included are nonmilitary government office complexes.
- 61. Power production complex.
- 63. Military reservation, defense complex.
- 65. Farm complex.
- 66. Indian reservation complex.
- 70. industrial plant, manufacturing complex.
- 80. Warehouse, storage complex.
- 91. Construction complex.
Included are demolition operations.
- 93. Campsite complex.
- 94. Waterfront complex.
Included are marinas.
- 95. Railroad transport complex.
- 96. Road complex.
Included are highways, streets, and all public ways.
- 97. Airport complex.
- 98. No complex.
- 99. Other complex.
If other properties meeting the definition for a complex as defined above are identified, they may be indicated by Complex Code 99.

Coded Examples

A fire in a single family dwelling.

J	COMPLEX Single Family Dwelling	4 1	MOBILE PROPERTY TYPE
---	--	-----	--------------------------

A fire in an office building.

J	COMPLEX Office Building	5 9	MOBILE PROPERTY TYPE
---	-----------------------------------	-----	--------------------------

Mobile Property Type

This element provides a means to identify property which was designed to be movable, either under its own power or towed, whether in fact it still is moveable. Dumpsters (formerly 72) are no longer considered as Mobil Property.

Purpose

This element permits an analysis of the fire problem in vehicles and other mobile property. Completing this entry also requires completing Line S.

Entry

Enter a brief description of the mobile property and the proper code that best describes this property type. If no Mobile Property, enter n/a and Code "08."

Examples

A fire in a mobile home.

J COMPLEX	MOBILE PROPERTY TYPE Mobile home
-----------	-------------------------------------

An automobile is involved in a fire.

J COMPLEX	MOBILE PROPERTY TYPE Automobile
-----------	------------------------------------

No mobile property involved in a fire.

J COMPLEX	MOBILE PROPERTY TYPE N/A
-----------	-----------------------------

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MOBILE PROPERTY USE

1. PASSENGER ROAD TRANSPORT VEHICLES

Motor vehicles such as automobiles, buses, or mobil homes used primarily for transporting or housing people. Included are abandoned vehicles.

11. Automobile.

Included are taxicabs, limousines, race cars, and ambulances.

12. Bus, trackless trolley.

Included are school buses.

13. All terrain vehicles.

Included are motorcycles, golf carts, snowmobiles, and dune buggies.

14. Motor home.

A mobile unit containing its own motive power. Included are pickup truck mounted campers and bookmobiles.

15. Travel trailer.

A portable structure built or placed on a chas-

sis and designed to be pulled by a vehicle.

16. Camping trailer.

A collapsible portable structure built on a chassis and designed to be pulled by a vehicle.

17. Mobil home, mobil building.

A structure built on a chassis and designed to be pulled by a vehicle to a semipermanent site. Included are mobil classrooms, mobile banks, mobile office buildings, whether on wheels, off their wheels on jacks, or on a foundation.

19. Passenger Road Transport Vehicles not classified above.

10. Passenger Road Transport Vehicles; insufficient information available to classify further.

2. FREIGHT ROAD TRANSPORT VEHICLES

Vehicles primarily for transporting goods. Included are abandoned vehicles. Excluded are materials handling equipment (63).

21. General use trucks over one ton net weight. Included are solid chassis trucks, mail trucks, dump trucks, and fire apparatus.
22. General use small trucks under one ton weight. Included are pickups, wagons, and non-motorized hauling rigs.
23. Semi-trailer truck with or without tractor.
24. Tank truck for nonflammable cargo.
25. Tank truck for flammable or combustible liquid, chemical.
26. Tank Truck for compressed gas or LP-Gas.
27. Trash truck. Included are refuse rendering and waste collection vehicles.
29. Freight Road Transport Vehicles not classified above.
20. Freight Road Transport Vehicles; insufficient information available to classify further.

3. RAIL TRANSPORT VEHICLES

Railroad, subway, railway, trolley car, and other rail vehicles are included.

31. Passenger, diner car.
32. Freight, box, hopper car.
33. Tank car.
34. Container, piggy back car.
35. Locomotive, engine.
36. Self-powered car. Included are trolley and rapid transit cars. Excluded are trackless trolleys (12).
37. Maintenance equipment, car. Included are cabooses and cranes.
39. Rail Transport Vehicle not classified above.
30. Rail Transport Vehicle; insufficient information available to classify further.

4. WATER TRANSPORT VESSELS

Included are all water vessels, irrespective of ownership

41. Motor craft (under 65 feet length overall). Vessels under 65 feet length overall. Excluded are commercial fishing vessels (48).
42. Vessel (under 1,000 gross tons). Vessels over 65 feet length overall, but under 1,000 gross tons. included are water taxis, industrial vessels, and "yachts."
43. Passenger ship.
44. Tank ship.
45. Combat ship.
46. Cargo ship. Vessels not classified in subdivisions 41, 42, 43, 44, and 45.
47. Nonself-propelled vessel. All vessels without their own motive power. Included are towed petroleum balloons, barges, and other towed or towable vessels. Excluded are sailboats (49).
48. Commercial fishing vessel.

Included are vessels on inland, coastal, and ocean waters, and operation of oyster beds, fish hatcheries, and factory vessels. Excluded are fish hatcheries themselves (fixed property use, subdivision 665).

49. Water Transport Vessels not classified above. Included are sailboats without auxiliary power.
40. Water Transport Vessels; insufficient information available to classify further.

5. AIR TRANSPORT VEHICLES

Transport by air of passengers and freight, whether by regular services or by private charter.

51. Personal, business, utility aircraft under 12,500 lbs. gross weight.
52. Personal, business, utility aircraft 12,500 lbs. gross weight and over.
53. Commercial Transport Aircraft, Reciprocating engine powered, fixed wing.
54. Commercial transport aircraft, jet and other turbine powered, fixed wing.
55. Nonmilitary helicopters; vertical take-off aircraft.
56. Combat type military aircraft (attack bombers, fighters, patrol).
57. Noncombat type military aircraft (cargo, training, utility, reconnaissance).
58. Nonmilitary ground effect machines (hovercraft).
59. Air Transport Vehicles not classified above. Included are gliders and kites.
50. Air Transport Vehicles; insufficient information available to classify further.

6. HEAVY EQUIPMENT

61. Earth moving equipment. included are bulldozers, shovels, graders, scrapers, trenchers, and plows.
62. Construction equipment. Included are water drilling equipment, pile drivers, tunneling equipment, air compressors, and the like.
63. Materials handling equipment. Included are fork lifts, industrial tow motors, loaders, and stackers.
64. Crane.
65. Tractor, harvester, picker.
66. Drilling rig for petroleum and gas only.
67. Armored equipment. Included are armored cars and military vehicles.
68. Manned, unmanned space vehicle. Included are rockets and missiles. For launching site, see fixed property use 631.
69. Heavy Equipment not classified above.
60. Heavy Equipment; insufficient information available to classify further.

7. SPECIAL VEHICLES

- 71. Garden equipment.
Included are power driven lawn, yard, and snow equipment.
- 79. Special Vehicles not classified above.
- 70. Special Vehicles; insufficient information available to classify further.

9. OTHER MOBILE PROPERTY TYPES

- 99. Mobile Property Type not classified above.
- 08. Mobile Property Type not applicable.
- 00. Mobile Property Type undetermined or not reported.

Coded Examples

A fire in a mobile home.

J	COMPLEX		MOBILE PROPERTY TYPE Mobile home	1 7
---	---------	--	-------------------------------------	-----

An automobile is involved in a fire.

J	COMPLEX		MOBILE PROPERTY TYPE Automobile	1 1
---	---------	--	------------------------------------	-----

No mobile property involved in a fire.

J	COMPLEX		MOBILE PROPERTY TYPE N/A	0 8
---	---------	--	-----------------------------	-----

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K AREA OF FIRE ORIGIN	EQUIPMENT INVOLVED IN IGNITION
-----------------------	--------------------------------

Area of Fire Origin

Definition

This data element specifically identifies the primary use of the area where the fire originated within the property. Previous data elements were concerned with the entire building or group of buildings (complex), and the portion of a complex having a fixed occupancy (fixed property use). The area of origin may be a room, an area or portion of a room, a vehicle or a portion of a vehicle or possibly some open area devoted to a specific use. For example, an office building may be the complex, a restaurant in that building the fixed property use, and the kitchen in that restaurant the area of origin. Every fire has an area of fire origin.

Purpose

This information when used with other causal factors describes the exact location and cause of the fire.

Entry

Enter a written description of the area of fire origin and the appropriate code number.

Examples

A fire started in the kitchen of a single family dwelling.

K AREA OF FIRE ORIGIN Kitchen	EQUIPMENT INVOLVED IN IGNITION
---	--------------------------------

✓ A fire starting in a bedroom closet of a home.

K AREA OF FIRE ORIGIN Bedroom Closet	EQUIPMENT INVOLVED IN IGNITION
--	--------------------------------

A fire starting under the hood of an automobile.

K AREA OF FIRE ORIGIN Engine Compartment	EQUIPMENT INVOLVED IN IGNITION
--	--------------------------------

A fire starting in a vacant lot next to a dwelling.

K AREA OF FIRE ORIGIN Vacant lot	EQUIPMENT INVOLVED IN IGNITION
--	--------------------------------

AREA OF ORIGIN

0. MEANS OF EGRESS

01. Hallway, corridor, mall.
02. Exterior stairway.
Included are fire escapes and exterior ramps.
03. Interior stairway.
Included are interior ramps.
04. Escalator.
05. Lobby, entrance way.
09. Means of Egress not classified above.

1. ASSEMBLY, SALES AREAS (groups of people)

11. Large assembly area with fixed seats (100 or more persons).
Included are auditoriums, chapels, places of worship, theaters, arenas, and lecture halls.
12. Large open room without fixed seats,(100 or more persons).
Included are ballrooms, gymnasiums, roller rinks, bowling alley lanes, multi-use areas, and the like.
13. Small assembly area with or without fixed seats (less than 100 persons).
Included are classrooms, meeting rooms, multipurpose rooms, and the like.
14. Lounge area.
Included are living rooms, common rooms, TV rooms, dens, recreation rooms, family rooms, sitting rooms, music rooms, and the like.
15. Sales, showroom area.
included are shops, Excluded are display windows (56).
16. Library.
Included are art galleries and exhibit spaces.
17. Swimming pool.
19. Assembly, Sales Areas not classified above.

2. FUNCTION AREAS

21. Sleeping room for under 5 persons.
Included are patient rooms, bedrooms, cells, lockups, and the like.
22. Sleeping area for 5 or more persons.
Included are wards, dormitories, barracks, and the like.
23. Dining area, lunchroom, cafeteria.
Included are dining rooms, mess rooms, canteens, and beverage service bars.
24. Kitchen, cooking area.
25. Lavatory, locker room, cloakroom.
Included are checkrooms, rest rooms, bathrooms, powder rooms, washrooms, shower rooms, sauna baths, outhouses, and portable toilets.
26. Laundry room, area.
Included are wash houses.

27. Office.
28. Personal service area.
Included are health clubs, massage parlors, and barber and beauty treatment areas.,

3. FUNCTION AREAS

31. Laboratory.
32. Printing or photographic room, area.
33. First aid, treatment room.
Included are areas where minor surgery is performed.
34. Operating room.
Included are recovery rooms and operating theaters.
35. Electronic equipment room, area.
Included are control centers, radar rooms, electronic computer areas, data processing centers, telephone equipment rooms, telephone booths, and the like.
36. Performance, stage area.
Included are backstage areas, dressing rooms, ice rinks, boxing rings, and basketball floors.
37. Projection room, area.
Included are stage light and spotlight areas.
38. Process, manufacturing area.
Included are workrooms.
39. Function Areas not classified above.

4. STORAGE AREAS

41. Product storage room or area, storage tank, storage bin.
included are all areas where products are held awaiting process, shipment, use, or sale.
 42. Closet.
 43. Supply storage room or area.
Included are tool rooms, maintenance supply rooms, dead storage rooms, and the like.
 44. Records storage room, vault.
 45. Shipping, receiving, loading area.
Included are packing departments, mail rooms, and loading bays.
 46. Trash or rubbish area, container.
Included are wastepaper storage areas, industrial waste containers, compactors, garbage and trash chutes without incinerators. Excluded are incinerators (64).
 47. Garage, carport, vehicle storage area.
 49. Storage Areas not classified above.
- ### 5. SERVICE FACILITIES
51. Elevator, dumb-Walter.
Included are the shaft areas.
 52. Utility shaft.
Included are pipe, ventilation, and conduit shafts.
 53. Light shaft.
 54. Chute.
Included are laundry chutes and mail chutes. Excluded are trash chutes (46).

- 55. Duct.
Included are air conditioning, heating, cable, and exhaust ducts.
- 56. Display window.
- 57. Chimney.
- 58. Conveyor.
- 59. Service Facilities not classified above.

6. SERVICE, EQUIPMENT AREAS

- 61. Machinery room, area.
Included are elevator machinery rooms, engine rooms, pump rooms, head houses, refrigeration rooms, and the like.
- 62. Heating equipment room or area, water heater area.
- 63. Switchgear area, transformer vault.
- 64. Incinerator room, area.
Included are all incinerator operations. Excluded are rubbish areas without incinerators (46).
- 65. Maintenance shop, area.
included are repair shops, welding shops, paint shops, workshops, and paint spraying areas.
- 66. Test cell.
- 67. Enclosure with pressurized air.
- 68. Enclosure with enriched oxygen atmosphere.
- 69. Service, Equipment Areas not classified above.

7. STRUCTURAL AREAS

- 71. Crawl space, substructure space.
- 72. Exterior balcony, open porch.
- 73. Ceiling and floor assembly, concealed floor/ceiling space.
- 74. Ceiling and roof assembly, concealed roof/ceiling space.

- 75. Wall assembly, concealed wall space.
- 76. Exterior wall surface.
- 77. Exterior roof surface.
- 78. Awning.
- 79. Structural Areas not classified above.

8. TRANSPORTATION, VEHICLE AREAS

- 81. Passenger area of transportation equipment.
- 82. Trunk, load carrying area of transportation equipment.
- 83. Engine area, running gear, wheel area of transportation equipment.
- 84. Fuel tank, fuel line area of transportation equipment.
- 85. Operating, control area of transportation equipment.
Included are the bridge of ships, cockpit of planes, cab of trucks, and the like.
- 86. Exterior exposed surface of transportation equipment.
- 89. Transportation, Vehicle Areas not classified above.

9. OTHER AREA OF ORIGIN

- 91. On or near railroad right of way, embankment.
- 92. On or near highway, public way, street.
- 93. Court, terrace, patio.
- 94. Lawn, field, open area.
Included are farmland, parks, and vacant lots.
- 95. Wildland area, woods.
- 97. Multiple location, use area.
- 98. Area of Origin not applicable.
- 99. Other Area of Origin not classified above.
- 00. Area of Origin undetermined or not reported.

Coded Examples

A fire started in the kitchen of a single family dwelling.

AREA OF FIRE ORIGIN Kitchen	EQUIPMENT INVOLVED IN IGNITION
2 4	

A fire starting in the bedroom closet of a home.

AREA OF FIRE ORIGIN Bedroom Closet	EQUIPMENT INVOLVED IN IGNITION
4 2	

A fire starting under the hood of an automobile.

AREA OF FIRE ORIGIN Engine Compartment	EQUIPMENT INVOLVED IN IGNITION
8 3	

A fire starting in a vacant lot next to a dwelling.

AREA OF FIRE ORIGIN Vacant lot	EQUIPMENT INVOLVED IN IGNITION
9 4	

Equipment Involved in Ignition (if any)

Definition

The piece of equipment, if any, which provided the principal heat that caused ignition, whether the equipment malfunctioned or was used improperly.

Purpose

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

Entry

Specify the equipment which was involved in the ignition. Examples include television sets, clothes dryers, and space heaters. Completing this entry also requires completing line T at the bottom of the form. Add comments under Remarks if necessary. If no equipment was involved in the ignition, enter: "n/a" or "No Equipment Involved" and code 98.

Examples

Fire started by a short circuit in a hot plate.

AREA OF FIRE ORIGIN	EQUIPMENT INVOLVED IN IGNITION
	Short Circuit In Hot Plate

Fire started by combustible bathrobe placed on heater.

AREA OF FIRE ORIGIN	EQUIPMENT INVOLVED IN IGNITION
	Bathrobe on Portable Electric Heater

No equipment involved.

AREA OF FIRE ORIGIN	EQUIPMENT INVOLVED IN IGNITION
	No Equipment Involved

EQUIPMENT INVOLVED IN IGNITION (IF ANY)

1. HEATING SYSTEMS

Excluded are combination heating and cooling systems (division 3).

11. Central heating unit.
Included are central furnaces and power burners or stokers having an air supply and a return air system. Excluded are industrial furnaces (71).
12. Water heater.
13. Fixed, stationary local heating unit.
Included are wall furnaces, unit heaters, room heaters, fixed heating stoves, and baseboard heaters not intended for duct connection.
14. Indoor fireplace.
15. Portable local heating unit.
Included are space heaters, room heaters, and portable salamanders.
16. Chimney, gas vent flue.
Included are masonry, factory built and metal chimneys.
17. Chimney connector, vent connector (connects firebox to chimney).
Included are smoke pipes.
18. Heat transfer system.
Included are steam lines, heating pipes, and hot air ducts.
19. Heating systems not classified above.
20. Heating Systems; insufficient information available to classify further.

2. COOKING EQUIPMENT

21. Fixed, stationary surface unit.
Included are stoves. Excluded are charcoal grills (26).
22. Fixed, stationary oven.
Included are rotisseries.
23. Fixed, stationary food warming appliance.
Included are coffee urns, steam tables, warming drawers, and warming tables.
24. Deep fat fryer.
25. Portable cooking, warming unit.
Included are hot plates, camp stoves, toasters, and waffle irons.
26. Open fired grill.
Included are charcoal, wood and paper fired hibachi and barbecue grills.
27. Grease hood, duct.
29. Cooking Equipment not classified above.
20. Cooking Equipment; insufficient information available to classify further.

3. AIR CONDITIONING, REFRIGERATION EQUIPMENT

Included are combination cooling and heating systems. Excluded are the cords and plugs (47).

31. Central air conditioning, refrigeration equipment.
32. Water cooling device, tower.
33. Fixed, stationary local refrigerator unit.
Included are cold boxes, freezers, and refrigerators.
34. Fixed, stationary local air conditioning unit.
35. Portable air conditioning, refrigeration unit.
Included are dehumidifiers.
39. Air Conditioning, Refrigeration Equipment not classified above.
30. Air Conditioning, Refrigeration Equipment; insufficient information available to classify further.

4. ELECTRICAL DISTRIBUTION EQUIPMENT

Excluded are heating, cooking, air conditioning, and refrigeration equipment (divisions 1, 2, and 3).

41. Fixed wiring.
Included are power lines, junction boxes, cables, and wiring in raceways.
 42. Transformer, associated overcurrent or disconnect equipment.
 43. Meter, meter box.
 44. Power switch gear, overcurrent protection devices.
Included are panelboards or switchboards, fuses, and circuit breakers.
 45. Switch, receptacle, outlet.
 46. Lighting fixture, lampholder, ballast, sign.
 47. Cord, plug.
Included are "temporary" extension cords, appliance cords, and plugs.
 48. Lamp, light bulb.
 49. Electrical Distribution Equipment not classified above.
 40. Electrical Distribution Equipment; insufficient information available to classify further.
- ### 5. APPLIANCES, EQUIPMENT (other than elsewhere classified in this chapter)
51. Television, radio, phonograph.
Included are tape recorders, sound or picture receiving equipment, and reproduction equipment.
 52. Dryer.
Included are coin-operated dryers and extractors removing any liquid or solvent.
 53. Washing machine.
Included are coin-operated machines at laundries.
 54. Floor care equipment.
Included are vacuum cleaners. Excluded are "ride on" type floor care machines which are classified as industrial trucks (96).

- 55. Separate motor, generator.
Included are those not an integral part of an appliance and those separated by a belt or chain from the equipment they drive or which drives them.
- 56. Hand tools.
Included are soldering irons, drills, and the like.
- 57. Portable appliance designed to produce controlled heat (not classified in 52 or 56).
Included are electric blankets and steam irons, and heat tapes.
- 58. Portable appliance designed not to produce heat (not classified above).
Included are electric razors and can openers.
- 59. Appliances, Equipment not classified In 51 through 58.
Included are dishwashers.
- 50. Appliances, Equipment; insufficient information available to classify further.

6. SPECIAL EQUIPMENT

- 61. Electronic equipment.
Included are radar, X-ray, computer, telephone, and transmitter equipment.
- 62. Vending machine, drinking fountain.
- 63. Office machine.
- 64. Biomedical equipment, device.
Included are anesthetizing machines.
- 65. Separate pump, compressor.
- 66. Internal combustion engine.
- 67. Conveyor.
- 68. Printing press.
- 69. Special Equipment not classified above.
- 60. Special Equipment; insufficient information available to classify further.

7. PROCESSING EQUIPMENT

- 71. Furnace, oven, kiln.
Excluded are those used for food preparation (division 2) and heat treating (73).
- 72. Casting, molding, forging equipment.
Included are glass forming machines and die casting machines.
- 73. Heat treating equipment.
Included are quench tanks and associated equipment.

- 74. Working, shaping machine.
Included are sawing, planing, grinding, machining, forming, opening, picking, carding, and weaving machines.
- 75. Coating machine.
Included are asphalt saturating and rubber spreading machines.
- 76. Painting equipment.
Included are dipping, spraying, and flowcoating equipment.
- 77. Chemical process equipment.
Included are digesters, reactors, black liquor recovery units, and distilling equipment.
- 78. Waste recovery equipment.
Included are garnetting and solvent recovery equipment.
- 79. Processing Equipment not classified above.
- 70. Processing Equipment; insufficient information available to classify further.

8. SERVICE, MAINTENANCE EQUIPMENT

- 81. Incinerator.
- 82. Bearing, brake.
- 83. Rectifier, charger.
Included are inverters and batteries.
- 84. Tarpot, tar kettle.
- 85. Arc, oil lamp.
Included are gas mantles and arc-lighted motion picture projectors.
- 86. Elevator.
- 87. Torches.
Included are cutting, welding, and plumbers torches, Bunsen burners, and the like.
- 89. Service, Maintenance Equipment not classified above.
- 80. Service, Maintenance Equipment; insufficient information available to classify further.

9. OTHER OBJECT

- 96. Vehicle.
Included are exhaust systems and other vehicle parts.
- 98. No equipment Involved.
- 99. Other Object, not classified above.
- 90. Other Object; insufficient information available to classify further.
- 00. Equipment Involved In ignition undetermined or not reported.

Coded Examples

Fire started by a short circuit in a hot plate.

K AREA OF FIRE ORIGIN		EQUIPMENT INVOLVED IN IGNITION Short Circuit In Hot Plate	2 5
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Fire started by combustible bathrobe placed on heater.

K AREA OF FIRE ORIGIN		EQUIPMENT INVOLVED IN IGNITION Bathrobe on Portable Electric Heater	1 5
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No equipment involved.

K AREA OF FIRE ORIGIN		EQUIPMENT INVOLVED IN IGNITION No Equipment Involved	9 8
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FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
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Form of Heat of Ignition

Definition

The heat energy form which starts the fire. Examples are an open flame, a hot surface, an arc, or a spark. Every fire has a FORM OF HEAT OF IGNITION.

Purpose

The Form of Heat of Ignition combined with the Equipment Involved in Ignition should clearly identify the heat energy source which was responsible for igniting the fire. Together with other factors in the ignition sequence, these data help identify the cause of the fire. Also, some of the "heat forms" are objects, such as cigarettes or fireworks, whose frequency of involvement in fires is of direct interest in prevention.

Entry

Enter a precise description of the heat of ignition. If the heat was from a fuel-fired or fuel-powered object, be sure to specify the fuel used. For example, there is a difference between gas and gasoline. Gas is a gaseous fuel; gasoline is a liquid fuel.

Examples

Fire started by a short circuit in hot plate.

FORM OF HEAT OF IGNITION Short Circuit	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
--	--------------------------	--------------------------

Fire starts spontaneously in the hay storage area of a barn.

FORM OF HEAT OF IGNITION Spontaneous Ignition	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
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Fire starts from a candle which fell over.

FORM OF HEAT OF IGNITION Candle	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
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FORM OF HEAT OF IGNITION

1. HEAT FROM FUEL-FIRED, FUEL-POWERED OBJECT

The difference between subdivision 11 and subdivision 12 is whether a spark, ember, or flame actually escaped from the equipment or whether it was simply overheating of the outside surface of the equipment (or its internal heat) causing the ignition of nearby combustibles.

11. Spark, ember, flame escaping from gas fueled equipment.
12. Heat from gas fueled equipment. included are pilot lights and normal flames.
13. Spark, ember, flame escaping from liquid fueled equipment.
14. Heat from liquid fueled equipment. Included are pilot lights and normal flames.
15. Spark, ember, flame escaping from solid fueled equipment.
16. Heat from solid fueled equipment.
17. Spark, ember, flame escaping from equipment; fuel not known.
18. Heat from equipment; fuel not known.
19. Heat from Fuel-Fired, Fuel-Powered Object not classified above.
20. Heat from Fuel-Fired, Fuel-Powered Object; insufficient information available to classify further.

2. HEAT FROM ELECTRICAL EQUIPMENT ARCING, OVERLOADED

21. Water caused short circuit arc.
22. Short circuit arc from mechanical damage.
23. Short circuit arc from defective, worn insulation.

24. Unspecified short circuit arc.
25. Arc from faulty contact, loose connection, broken conductor.
26. Arc, spark from operating equipment or switch.
27. Heat from overloaded equipment.
Included are wires and motors.
28. Fluorescent light ballast.
29. Heat from Electrical Equipment Arcing, Overloaded not classified above.
20. Heat from Electrical Equipment Arcing, Overloaded; insufficient information available to classify further
- 3. HEAT FROM SMOKING MATERIAL**
Included is heat from material in use or after use. Excluded are matches (45) and lighters (46).
31. Cigarette.
32. Cigar.
33. Pipe.
39. Heat from Smoking Material not classified above.
30. Heat from Smoking Material; insufficient information available to classify further.
- 4. HEAT FROM OPEN FLAME, SPARK**
41. Cutting torch operation (separating metals).
42. Welding torch operation (joining metals).
43. Torch operation, other than cutting and welding.
Included are plumbers' furnaces, blow torches, plumbers' torches, Bunsen burners, soldering and heating operations, paint stripping torches, and other torch operations.
44. Candle, taper.
45. Match.
46. Lighter (flame type).
47. Open fire.
Included are campfires, bonfires, warning flares, rubbish fires, open trash burners, open incinerators, and outdoor fireplaces.
48. Backfire from internal combustion engine.
Excluded are flames and sparks from an exhaust system (13).
49. Heat from Open Flame, Spark; not classified above.
40. Heat from Open Flame, Spark; insufficient information available to classify further.
- 5. HEAT FROM HOT OBJECT**
51. Heat, spark from friction.
included are overheated tires.
52. Molten, hot material.
Included are molten metal, hot forging, and hot glass.
53. Hot ember, ash.
54. Electric lamp.
Included are light bulbs.
55. Rekindle, reignition.
56. Heat from properly operating electrical equipment.
57. Heat from Improperly operating electrical equipment.
59. Heat from Hot Object not classified above.
50. Heat from Hot Object; insufficient information available to classify further.
- 6. HEAT FROM EXPLOSIVE, FIREWORKS**
61. Explosive.
Included are bombs, ammunition, and military rockets.
62. Blasting agent.
63. Fireworks.
Included are sparklers.
64. Paper cap, party popper.
65. Model rocket, not amateur rocketry.
66. Incendiary device.
Included are Molotov cocktails.
69. Heat from Explosive, Fireworks not classified above.
60. Heat from Explosive, Fireworks; insufficient information available to classify further.
- 7. HEAT FROM NATURAL SOURCE**
71. Sun's heat.
Usually magnified through broken glass or glass bottle.
72. Spontaneous Ignition, chemical reaction.
73. Lightning discharge.
74. Static discharge.
79. Heat from Natural Source not classified above.
70. Heat from Natural Source; insufficient information available to classify further.
- 8. HEAT SPREADING FROM ANOTHER HOSTILE FIRE (Exposure)**
81. Heat from direct flame, convection currents.
82. Radiated heat.
83. Heat from flying brand, ember, spark.
84. Conducted heat.
89. Heat Spreading from Another Hostile Fire not classified above.
80. Heat Spreading from Another Hostile Fire; insufficient information available to classify further.
- 9. OTHER FORM OF HEAT OF IGNITION**
97. Multiple forms of heat of ignition.
Use this subdivision only where there are multiple fires started at approximately the same time on the same property and more than one heat of ignition was initially involved. If one major heat source was involved, use the appropriate classification. List each heat source in the report.
99. Other Form of Heat of ignition not classified above.
00. Form of Heat of Ignition undetermined or not reported.

Coded Examples

Fire started by a short circuit in hot plate.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
Short Circuit 2 4		

Fire starts spontaneously in the hay storage area of a barn.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
Spontaneous Ignition 7 2		

Fire starts from a candle which fell over.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
Candle 4 4		

Type of Material Ignited

Definition

The composition of the material which was first ignited by the heat source. "Type of Material" refers to the raw, common, or natural state in which the material exists. The type of material ignited may be a gas, flammable liquid, chemical, plastic, wood, paper, fabric, or any number of other materials. The Type of Material and Form of Material should describe the same material. For example, the wood shingles on a roof would be: Type of Material, wood, (code 63) and Form of Material, roof covering.

Purpose

Knowing what type of material is first ignited is helpful in finding out why fires start. A study of this entry also assists in assessing the need for flammability standards and other materials standards. This information also can be helpful to manufacturers for product improvement.

Entry

Enter the exact type of material which was first ignited by the heat source. Assistance may be needed in identifying the specific material ignited. Be certain to enter the first material ignited. For example, if an arsonist ignites gasoline poured on a wooden floor, it is the gasoline and not the wood that is the material first ignited. If an insulated wire short-circuits, it may be the wire's insulation that is first ignited; on the other hand it may be the wood studs in the wall, thermal insulation nearby, or other material.

Examples

Kids ignite cotton curtains in a bedroom.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
	Cotton	

A chimney fire ignited due to creosote build-up.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
	Creosote	

TYPE OF MATERIAL IGNITED

1. GAS

11. Natural gas.
12. LP-City Gas (LP and air mix).
13. Manufactured gas.
14. LP-gas.
15. Anesthetic gas.
16. Acetylene.
17. Specialty gas other than anesthetic.
19. Gas not classified above.
10. Gas; insufficient information available to classify further.

2. FLAMMABLE, COMBUSTIBLE LIQUID

Classification information is given in NFPA Nos. 321 and 325 M.

21. Class IA flammable liquid.
Flash point less than 73oF (22.8oC) and boiling point less than 100oF (37.8oC). Included are ethyl ether, pentane, and ethylene oxide.
22. Class IB flammable liquid.
Flashpoint less than 73oF (22.8oC) and boiling point at or above 100oF (37.8oC). Included are acetone, ethyl alcohol, JP-4 jet fuel, and methyl ethyl ketone. Excluded is gasoline (23).
23. Gasoline.
24. Class IC flammable liquid.
Flashpoint at or above 73oF (22.8oC) and below 100oF (37.8oC). Included are butyl alcohol, propyl alcohol, styrene, and turpentine.
25. Class ii combustible liquid.
Flashpoint at or above 100oF (37.8oC) but less than 140°F (60oC). Included are kerosene, Nos. 1, 2, 4 and 5 fuel oil, and diesel fuel.
26. Class IIIA combustible liquid.
Flashpoint at or above 140°F (60oC) but less than 200oF (93.4oC). Included are No. 6 fuel oil, cottonseed oil, and creosote oil.
27. Class IIIB combustible Liquid.
Flashpoint at or above 200oF (93.4oC). Included are cooking oil, transformer oil, and lubricating oil.
29. Flammable, Combustible Liquid not classified above.
20. Flammable, Combustible Liquid; insufficient information available to classify further.

3. VOLATILE SOLID, CHEMICAL

Volatile solids are materials with a melting point between 100oF and 200oF.

31. Fat, grease (food).
Included are butter, tallow, margarine, and lard.
32. Grease (nonfood).
Included are petroleum jellies.

33. Polish.
Included are paraffin wax.
34. Adhesive, resin, tar.
Included are glue, gelatin, rosin, damas, elemi, kauri, asphalt, pitch, contact cement, soot, carbon and creosote.
35. Applied paint, varnish.
36. Combustible metal.
Included are magnesium, titanium, and zirconium.
37. Solid chemical (specify type).
Included are explosives. Excluded are liquid chemicals (division 2) and gaseous chemicals (division 1).
38. Radioactive material.
39. Volatile Solid, Chemical not classified above.
30. Volatile Solid, Chemical; insufficient information available to classify further.

4. PLASTIC

Included are all forms of plastic whether rigid, semi-rigid, flexible, or foamed.

41. Polyurethane.
Included are polyisocyanurates.
42. Polystyrene.
Included are styrene copolymers such as styrene-acrylonitrile (SAN), styrene-butadiene, and acrylonitrile-butadiene-styrene (ABS).
43. Polyvinyl.
Included are polyvinyl chloride (PVC), polyvinyl fluoride, polyvinylidene chloride, polyvinylidene fluoride, and vinyl chloride-acrylonitrile.
44. Polyacrylic.
Included is polymethyl methacrylate (PMMA).
45. Polyester.
Included are fiberglass reinforced polyesters.
46. Polyolefin.
Included are polyethylene and polypropylene.
49. Plastic not classified above.
40. Plastic; insufficient information available to classify further.

5. NATURAL PRODUCT

51. Rubber.
Included are synthetic rubbers.
52. Cork.
53. Leather.
54. Grass, leaves, hay, straw.
55. Grain, natural fiber (pre-process).
Included are feathers, felt, kapok, hessian, hemp, sisal, jute, cocofilm, flax, and cotton.
56. Coal, coke, briquettes, peat.
57. Food, starch.
Excluded are fat and grease (31).
58. Tobacco.
59. Natural Product not classified above.

50. Natural Product; insufficient information available to classify further.
- 6. WOOD, PAPER**
61. Growing wood.
62. Felled but unsawn wood.
63. Sawn wood.
Included is all finish lumber.
64. Wood shavings.
Included are sawdust and excelsior.
65. Hardboard, plywood.
66. Fiberboard (low density material), wood Pulp-
Included are low density pressed wood fiber board products.
67. Paper, untreated, uncoated.
Excluded are waxed papers (83).
68. Cardboard.
69. Wood, Paper not classified above.
70. Wood, Paper; insufficient information available to classify further.
- 7. FABRIC, TEXTILE, FUR**
Classify by predominant type of material, except as shown in 72.
71. Man-made fabric, fiber, finished goods.
Excluded are rayons (72).
72. Cotton, rayon, cotton fabric, finished goods.
Included are canvases and all polyester-cotton blends. Excluded is waterproof canvas made with materials compounded with oil (84).
73. Wool, wool mixture fabric, finished goods.
74. Fur, silk, other fabric, finished goods.
75. wig.
76. Human hair.
79. Fabric, Textile, Fur not classified above.
80. Fabric, Textile, Fur; insufficient information available to classify further.
- 8. MATERIAL COMPOUNDED WITH OIL**
81. Linoleum.
82. Oil cloth.
83. Treated and/or coated paper.
Included is waxed paper.
84. Waterproof canvas.
Excluded is waterproof cloth of rayon covered with neoprene (72).
85. Oily rags.
Included are waste materials impregnated with oil.
86. Asphalt treated material.
89. Material Compounded with Oil not classified above.
80. Material Compounded with Oil; insufficient information available to classify further.
- 9. OTHER TYPE OF MATERIAL IGNITED**
97. Multiple types of material first Ignited.
Use this subdivision only where there are multiple fires started at approximately the same time on the same property and more than one type of material was initially involved. If one major material was involved, use the appropriate classification. List each material in the report.
99. Type of Material not classified above.
00. Type of Material undetermined or not reported.

Coded Examples

Kids ignite cotton curtains in a bedroom.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
	Cotton	

A chimney fire ignited due to creosote build-up.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
	Creosote	

Form of Material Ignited

Definition

The kind of object first ignited, that is, the use of the material first ignited in the fire. Emphasis is placed on use by human beings, i.e., how the material is used as opposed to its composition. The Type and Form of Material should describe the same material. For example the wood shingles on a roof would be: Type of Material, wood, (code 63) and Form of Material, roof covering, (code 11).

Purpose

This data element helps identify objects frequently ignited. Knowing the type and form of material ignited can be useful in targeting fire prevention. For example, in fires started by discarded or dropped cigarettes, is it bedding or upholstered chairs or other furnishings that are most often the objects ignited?

Entry

Describe the characteristics and use of the "Form of Material" or item first ignited. Be certain it is the first item ignited, whether or not that item was the material generating the most flame or smoke. "Ignited" here means the first to burn or smolder, not necessarily the first to flame openly.

Examples

Kids ignite cotton curtains in a bedroom.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
		Curtains

A chimney fire was started due to creosote build-up.

FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED
		Creosote

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FORM OF MATERIAL IGNITED

1. STRUCTURAL COMPONENT, FINISH

11. Exterior roof covering, surface, finish.
12. Exterior sidewall covering, surface, finish.
Included are eaves.
13. Exterior trim, appurtenances.
Included are doors, porches, and platforms.
14. Floor covering, surface.
Included are tile, carpet, rug, flooring, and stairs.
15. Interior wall covering, surface items permanently affixed to wall and door surface.
Included are cloth wall coverings. Excluded are curtains and draperies (36).
16. Ceiling covering, surface.
Included are cloth permanently affixed to ceiling, and acoustical tile.
17. Structural member, framing.
18. Thermal, acoustical insulation within wall, partition, or floor/ceiling space.
19. Structural Component, Finish not classified above.
10. Structural Component, Finish; insufficient information available to classify further.

2. FURNITURE

- Included is built-in furniture.
21. Upholstered sofa, chair, vehicle seats.
 22. Nonupholstered chair, bench.
 23. Cabinetry.
Included are filing cabinets, pianos, dressers, chests of drawers, desks, tables, and book-cases. Excluded are TV set and organ housings, bottle warmers, and appliance housings (25).
 24. ironing board.
 25. Appliance housing or casing.
 29. Furniture not classified above.
 20. Furniture; insufficient information available to classify further.
- ### 3. SOFT GOODS, WEARING APPAREL
31. Mattress, pillow.
 32. Bedding, blanket, sheet, comforter.
Included are heating pads.
 33. Linen, other than bedding.
Included are 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.
Included are fabrics and yard goods.
- 38. Luggage.
- 39. Soft Goods, Wearing Apparel not classified above.
- 30. Soft Goods, Wearing Apparel; insufficient information available to classify further.

4. ADORNMENT, RECREATIONAL MATERIAL

- 41. Christmas tree.
- 42. Decoration for special event.
- 43. Book.
- 44. Magazine, newspaper, writing paper.
Included are files.
- 45. Toy, game.
- 46. Awning, canopy.
- 47. Tarpaulin, tent.
- 49. Adornment, Recreational Material not classified above.
- 40. Adornment, Recreational Material; insufficient information available to classify further.

5. SUPPLIER, STOCK

- 51. Box, carton, bag.
- 52. Basket, barrel.
- 53. Pallet, skid (not in use).
- 54. Rope, cord, twine, yarn.
- 55. Packing, wrapping material.
- 56. Bale storage.
- 57. Bulk storage.
- 58. Cleaning supplies.
Included are brooms, brushes, mops, and cleaning cloths.
- 59. Supplies, Stock not classified above.
- 50. Supplies, Stock; insufficient information available to classify further.

6. POWER TRANSFER EQUIPMENT, FUEL

- 61. Electrical wire, cable insulation.
- 62. Transformer.
- 63. Conveyor belt, drive belt, V-belt.
- 64. Tire.

- 65. Fuel.
- 69. Power Transfer Equipment, Fuel not classified above.
- 60. Power Transfer Equipment, Fuel; insufficient information available to classify further.

7. GENERAL FORM

- 71. Agricultural product.
- 72. Fence, pole.
- 73. Fertilizer.
- 74. Growing, living form.
Included are forests, brush, and grass.
- 75. Rubbish, trash, waste.
Included are soot and creosote buildup.
- 76. Cooking materials.
- 77. Sign.

8. SPECIAL FORM

- 81. Dust, fiber, lint.
- 82. Pyrotechnics, explosives.
- 83. Atomized, vaporized liquid.
- 84. Chips.
- 85. Palletized material, material stored on pallets.
- 86. Gas or liquid in or from pipe or container.
Included are accelerants.
- 87. Rolled material.
Included is rolled paper.
- 88. Adhesive.

9. OTHER FORM OF MATERIAL

- 97. Multiple form of material ignited.
Use this subdivision only where there are multiple fires started at approximately the same time on the same property and more than one form of material was initially involved. If one major material was involved, use the appropriate classification. List each material in the report.
- 99. Form of Material not classified above.
- 00. Form of Material undetermined or not reported.

Coded Examples

Kids ignite cotton curtains in a bedroom.

L	FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED	
			Curtains	3 6

A chimney fire was started due to creosote build-up.

L	FORM OF HEAT OF IGNITION	TYPE OF MATERIAL IGNITED	FORM OF MATERIAL IGNITED	
			Creosote	7 5

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METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)

Method of Extinguishment

Definition

This data element identifies how the fire was extinguished. This includes actions taken by the fire department, other people in the area, and automatic sprinkler or other fire extinguishing systems.

Purpose

This information is useful in determining the best methods of extinguishing fires, and the frequency of use and cost-effectiveness of various fire suppression methods. Coupled with information on sprinkler performance, data on method of extinguishment would show how often sprinklers need to be augmented by fire service suppression in extinguishing fires. The data can also reveal how often fires to which the fire service is called are extinguished by other means. Information on the various extinguishment methods can be analyzed with casualty information and other descriptions of the fire to give insight on hazards associated with the various suppression methods. For example, how many civilians become injured while extinguishing their own fires?

Entry

Record the specific type and amount of equipment used to extinguish the fire. If not extinguished by the fire service or automatic systems, indicate who did it as well as how. When suppression is by a combination such as automatic sprinklers plus the fire service, report both in the box and numerically code the major or final method of extinguishment.

Examples

1 1/2" pre-connect with hydrant back-up.

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
1 1/2" Pre-Connect		

A small grass fire is extinguished by neighbors with a garden hose before the arrival of the fire department.

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
Garden Hose		

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METHOD OF EXTINGUISHMENT

1. Self-extinguished.
2. Make-shift aids.
Included are garden hoses, sand, rakes, shovels, baking soda, and the like.
3. Portable extinguisher.
4. Automatic extinguishing system.
5. Preconnected hose line(s) with water carried in apparatus tanks.
6. Preconnected hose line(s) with water from hydrant, draft, standpipe.
Included are preconnected hose lines on standpipe systems.
7. Hand-laid hose line(s) with water from standpipe, hydrant, draft.
8. Master stream device(s) with or without hand line(s).
9. Method of Extinguishment, Control not classified above.
0. Method of Extinguishment, Control undetermined or not reported.

Coded Examples

1 1/2" pre-connect with hydrant backup.

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
1 1/2" Pre-Connect	16	,

A small grass fire is extinguished by neighbors with a garden hose before the arrival of the fire department.

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
Garden Hose	12	,

Level of Fire Origin

Definition

The place where the fire originates in relation to ground level. Heights may be estimated. Each story of a building is considered equal to approximately 10 feet.

Purpose

A fire above or below ground level presents special problems in fire strategy and tactics. Information on the frequency and nature of high fires is needed for assessing aerial apparatus needs and performance. Often, a fire at the upper level of a multiple story building is difficult to control because of delays in moving personnel and equipment to the fire floor. Fires below ground present extremely dangerous conditions for fire fighters. A study of the frequency and nature of fires on these levels of origin may lead to improvement in tactics or insights into prevention. It is important to examine these data in relation to area of fire origin and the various elements of line H on the form. This element, analyzed with the, "Number of Stories," can help in understanding fire problems in high rise structures.

Entry

Enter the number of feet above or below ground where the fire originated. The codes do not specify number of feet below ground or water level. However, this information may be useful to the local fire department. For a building on sloping terrain consider the lowest level of exit discharge to be the "ground level."

Examples

A fire starting on ground level would be:

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
	Ground Level	,

A fire occurring in the basement of a building:

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
	Basement	,

LEVEL OF FIRE ORIGIN

1. Grade level to 9 feet above grade.
2. 10 to 19 feet above grade.
3. 20 to 29 feet above grade.
4. 30 to 49 feet above grade.
5. 50 to 70 feet above grade.
6. Over 70 feet above. grade.
7. Objects In flight.
8. Below ground level or water level.
9. Level of Origin not classified above.
0. Level of Origin undetermined or not reported.

Coded Examples

A fire starting on ground level would be:

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
	Ground Level	1

A fire occurring in the basement of a building:

METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
	Basement	8

Estimated Total Dollar Loss

Definition

This element is an estimate of the total loss in dollars to contents and structure.

Purpose

Estimated dollar losses indicate the magnitude of the fire problem, and can be used to evaluate progress in fire protection. This information helps local communities, States, and the Nation determine the amount that ought to be spent on fire protection. Estimated dollar loss is also crucial for identifying types of situations with the most loss. This information helps target prevention programs. Dollar loss estimates also can be used to evaluate the cost-effectiveness of various equipment and fire protection practices. Dollar losses are another dimension, in addition to "Extent of Damage," for describing fire 'severity. Each description complements the other and helps provide a check on the other.

Entry

This entry should be the best estimate of dollar loss that is 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.

When estimating fire loss, take into consideration material damaged during extinguishment, as well as material actually damaged by the fire. This will include water and smoke damage as well as material damaged during overhaul operations. Estimate the total loss to the structure and contents, in terms of the cost of replacement in like kind and quality. One method of estimating structure loss is to calculate the square footage of destroyed area, multiply this by the appropriate cost per square foot for new construction in your area for that particular type of construction, add 10 percent for demolition costs, and add the cost of replacing the contents and equipment.

In making this entry, use only whole dollars; do not include cents. Right-adjust the figure in the box.

Often, a better estimate of losses for a fire becomes available after the incident report is submitted. Revision of the original estimate should be made as a change entry when better information is available, especially for large fires. Trivial changes, of course, need not be made.

Example

A loss of \$2700.00 would be entered.

M	METHOD OF EXTINGUISHMENT	LEVEL OF FIRE ORIGIN	ESTIMATED LOSS (DOLLARS ONLY)
			, 2,700

The next section of the form, COMPLETE IF STRUCTURE FIRE, is composed of lines N, O, P, Q and R. Complete this section only if the fire involved a structure (type of situation found = 11 - Structure Fire).

N	NUMBER OF STORIES	CONSTRUCTION TYPE	
	EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE	
P	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE	
Q	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	

COMPLETE IF STRUCTURE FIRE

Number of Stories

Definition

This is the total number of stories in the structure including all below and above grade stories. A mezzanine should be considered as an additional story where the building code defines the area as a mezzanine. Unused crawl spaces should not be considered as additional stories.

Purpose

For structure fires, the data element "Level of Origin" does not provide sufficient information to locate fires occurring within multi-story structures. "Number of Stories," analyzed with "Level of Origin," will allow an acceptable method of locating fires occurring in multi-story (high-rise) structures.

Entry

Enter the number of stories to the highest structural member or peak. Do not include flag poles, antennas and the like.

Examples

A fire in a dwelling with 2 stories above grade and with no basement.

N	NUMBER OF STORIES	2 Stories	CONSTRUCTION TYPE

A six story structure with three basement level parking floors.

N	NUMBER OF STORIES	6 Stories & 3 Basement Levels	CONSTRUCTION TYPE

NUMBER OF STORIES

The number of stories being classified includes both below grade and above grade stories.

1. 1 story.
2. 2 stories.
3. 3 to 4 stories.
4. 5 to 6 stories.
5. 7 to 12 stories.
6. 13 to 24 stories.
7. 25 to 49 stories.
8. 50 stories or more.
0. Number of Stories undetermined or not reported.

Coded Examples

A fire in a dwelling with 2 stories above grade and with no basement.

N	NUMBER OF STORIES	2 Stories	CONSTRUCTION TYPE	
		2		

A six story structure with three basement level parking floors.

N	NUMBER OF STORIES	6 Stories & 3 Basement Levels	CONSTRUCTION TYPE	
		5		

Construction Type

Definition

The type of building construction used in the structure where the fire occurred. Emphasis is on characteristics that determine the building's ability to withstand exposure to a fire and to limit fire growth.

Purpose

To help analyze what effect, if any, the type of construction has on fire development, fire spread, and resulting damage.

Entry

Record the type of construction used if a structure was involved. To the extent possible, the description should emphasize construction from a building code and fire protection viewpoint. If a mixture of construction types exists, record the principal type.

Examples

A wood frame dwelling without rated walls.

N	NUMBER OF STORIES		CONSTRUCTION TYPE	
			Unprotected Frame	

An all metal hangar.

N	NUMBER OF STORIES		CONSTRUCTION TYPE	
			Metal Building	

A high rise building of reinforced concrete.

N	NUMBER OF STORIES	CONSTRUCTION TYPE
		Concrete Building

Codes © NFPA 1976

Code	Basic Description	CONSTRUCTION TYPE				4 NFPA Pamphlet 220
		1 Basic Building Code	2 Southern Building Code	3 Uniform Building 1973 and Prior	3 Uniform Building After 1973	
1	Fire Resistive	1A, 1B	1	I,II	I,II,F.R.	I(4,4,3,), I(3,3,2)
2	Heavy Timber	3A	IIH.T.	IIIH.T.	IVH.T.	IV(2HH)
3	Protected Non-Combustible	2A,2B	II,IV 1HR.	IV 1HR.	II 1HR.	II(2,2,2), II(1,1,1)
4	Unprotected Non-Combustible	2C	IV N.R.	IV N.R.	II N.R.	II(000)
5	Protected Ordinary	3B	V 1HR.	III 1HR.	III 1HR.	III(211)
6	Unprotected Ordinary	3C	V N.R.	III N.R.	III N.R.	III(200)
7	Protected Wood Frame	4A	VI 1 HR.	V 1HR.	V 1HR.	V(111)
8	Unprotected Wood Frame	4B	VI N.R.	V N.R.	V N.R.	V(000)
9	Not Classified Above					
0	Undetermined or Not Reported					

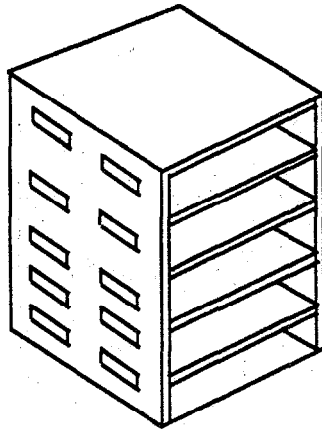
1. Building Officials and Code Administrators International, Inc., Chicago, Illinois.
2. Southern Building Code Congress, Birmingham, Alabama.
3. International Conference of Building Officials, Whittier, California.
4. National Fire Protection Association, Quincy,, Massachusetts.

Code *Clarification*: Since some fire service personnel may not be familiar with the brief descriptions of construction types given, the following, more detailed explanations are provided.

1. Fire Resistive

A totally non-combustible building in which no structural steel is exposed and all vertical openings are protected with approved doors. The fire resistant coverings of the steel is typically very heavy; poured concrete, brick, concrete block, or similar material.

NON COMBUSTIBLE:

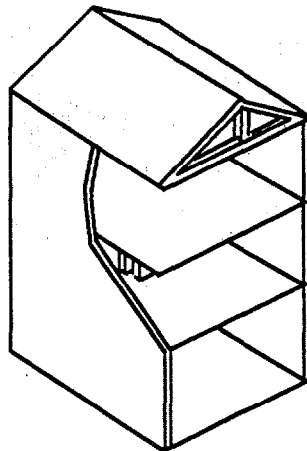


**CONCRETE OR
PROTECTED
STEEL
THROUGHOUT
(2 HR.)**

2. Heavy Timber

A typical mill-constructed building in which the load-bearing walls or columns are masonry or heavy timber and all exposed wood members have a minimum dimension of two (2) inches. If steel or iron columns are used, they should be protected by a fire-resistance enclosure.

COMBUSTIBLE:



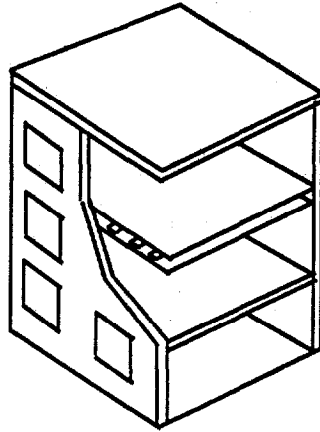
**STRUCTURAL
MEMBERS
OF SUBSTANTIAL
TIMBER
CONSTRUCTION**

**EXTERIOR WALL
OF
SUBSTANTIAL
MASONRY OR TIMBER**

3. Protected Non-combustible

A totally non-combustible building in which no structural steel is exposed. All vertical openings are protected by approved doors. The fire-resistant covering of the steel is typically light: gypsum board, sprayed fire resistive covering, rated ceilings, and similar materials.

NON COMBUSTIBLE:

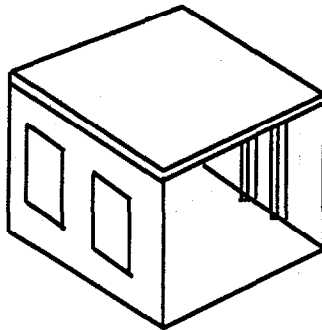


**CONCRETE OR
PROTECTED
STEEL
THROUGHOUT
(1 HR.)**

4. Unprotected Non-combustible

A totally non-combustible building in which the structural steel is exposed to the effects of a fire.

NON COMBUSTIBLE:

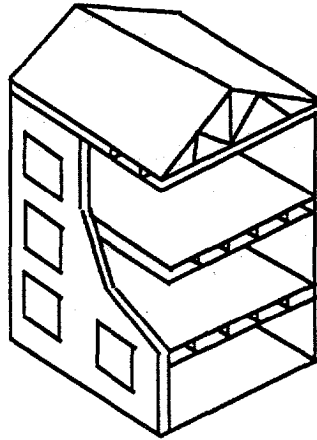


**EXPOSED
STEEL THROUGHOUT**

5. Protected Ordinary

The load-bearing walls are masonry. Columns are protected by a fire-resistive covering. The underside of all wood floor and roof decks is protected by a fire-resistive coating.

COMBUSTIBLE:

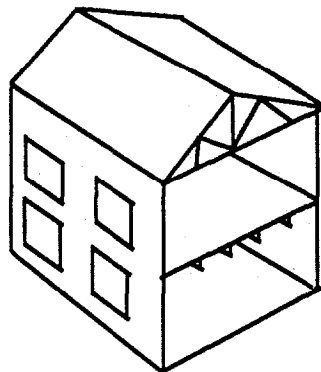


**PROTECTED
WOOD ROOFS
AND FLOORS
(1 HR.)
EXTERIOR WALLS
OF SUBSTANTIAL
MASONRY**

6. Unprotected Ordinary

The load-bearing walls are masonry. Columns, wood floor and roof decks are exposed and unprotected from fire.

COMBUSTIBLE:



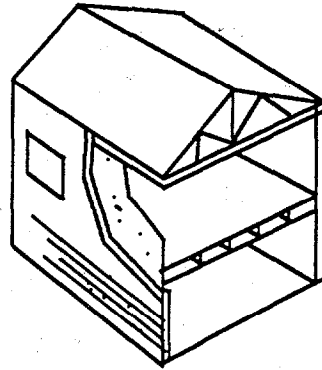
**EXPOSED WOOD
ROOF & FLOORS

EXTERIOR WALLS
OF SUBSTANTIAL
MASONRY**

7. Protected Wood Frame

Walls, floors and roof structure are wood framing. The interior wall and ceiling surfaces of habitable spaces are protected by a fire resistive covering. A brick veneer building falls in this category because the wall structure is wood framed. But for any wood frame building if the basement does not have a fire-resistive ceiling protecting the underside of the first floor, the building should be classified in the “unprotected wood frame” category.

COMBUSTIBLE:



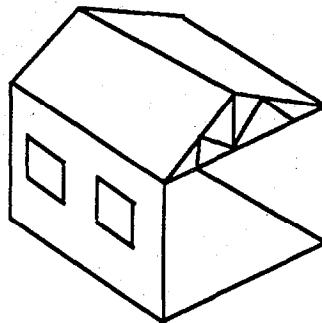
**WOOD ROOF, WALLS
AND FLOORS
PROTECTED BY 1/2"
GYPSUM BOARD**

**EXTERIOR WALL BRICK
VENEER OVER WOOD**

8. Unprotected Wood Frame

Walls, floors and roof structure are wood framing. There is no fire-resistive covering protecting the wood frame. A typical residential garage would fall in this category.

COMBUSTIBLE:



**EXPOSED
WOOD
THROUGHOUT**

Coded Examples

An exposed wood dwelling.

N	NUMBER OF STORIES	CONSTRUCTION TYPE
		Unprotected Frame 8

An all metal aircraft hangar.

N	NUMBER OF STORIES	CONSTRUCTION TYPE
		Metal Building 4

A high rise building of reinforced concrete.

N	NUMBER OF STORIES	CONSTRUCTION TYPE
		Concrete Building 1

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE
------------------------	------------------------

Extent of Flame Damage

Definition

The size of the fire in terms of how far the flame damage extended. The extent of flame damage is the area that was actually burned or charred and not the area that received only heat, smoke, or water damage.

Purpose

This element provides one means of describing the magnitude or seriousness of the fire. It can be used for evaluating the effectiveness of built-in fire protection features designed to limit fire spread. The element can also be used to evaluate the effectiveness of the fire suppression force relative to conditions faced. The confinement and extinguishment of a fire are influenced by many factors, including structural compartmentation, inspection and control of combustibles, fire suppression strategy and tactics, and built-in suppression systems. The Extent of Flame Damage indicates the combined effect of these conditions or it can be analyzed for many fires to show the effect of the individual factors.

Entry

Describe the extent of the burned and/or charred area. Fire damage can be confined to the object of origin, the room of origin, or can spread to other rooms, other parts of the building or even to other property. 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 structure of origin. Confined to structure of origin is also the appropriate description if the fire was on the roof or outside wall of a building.

Examples

A fire causes flame damage in the room of origin.

EXTENT OF FLAME DAMAGE Damage in Room of Origin	EXTENT OF SMOKE DAMAGE
---	------------------------

Fire extends out of room to cause flame damage to adjacent building.

EXTENT OF FLAME DAMAGE This Building & Next	EXTENT OF SMOKE DAMAGE
---	------------------------

Fire causes flame damage to a one-room building.

EXTENT OF FLAME DAMAGE To One Room Building	EXTENT OF SMOKE DAMAGE
---	------------------------

EXTENT OF FLAME DAMAGE

1. Confined to the object of origin.
2. Confined to part of room or area of origin.
3. Confined to room of origin.
4. Confined to fire-rated compartment of origin.
5. Confined to floor of origin.
6. Confined to structure of origin.
7. Extended beyond structure of origin.
0. Extent of Flame Damage undetermined or not reported.

Coded Examples

A fire causes flame damage which is confined to the room of origin.

○ EXTENT OF FLAME DAMAGE Damage in Room of Origin 3	EXTENT OF SMOKE DAMAGE
---	----------------------------

Fire extends out of structure to cause flame damage to adjacent building.

○ EXTENT OF FLAME DAMAGE This Building & Next 7	EXTENT OF SMOKE DAMAGE
---	----------------------------

Fire causes flame damage to a one-room building.

○ EXTENT OF FLAME DAMAGE To One Room Building 6	EXTENT OF SMOKE DAMAGE
---	----------------------------

Extent of Smoke Damage (and Heat Damage)

Definition

The size of the area damaged by either smoke or heat. This includes areas scorched by heat and materials damaged by smoke, but which have had no flame damage. Areas where non-damaging smoke was present should not be included.

Purpose

This element provides another means of evaluating severity of fires and the effectiveness of structural designs. The entry also provides the fire department with a measure for determining its effectiveness in limiting smoke damage.

Entry

If the fire was in a structure, describe the extent of damage to structure or contents caused by the smoke and heat. Damage can be confined to the object of origin, or it can spread to other rooms, other stories, or even other structures. Smoke damage often extends beyond the area of flame damage. When a structure burns to the ground, the Extent of Smoke Damage, providing it did not extend beyond the structure, becomes irrelevant. In such a case, "no damage of this type" would be the appropriate entry to describe the Extent of Smoke Damage.

Examples

Smoke damage is confined to room of origin.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE Smoke Damage in Room of Origin
------------------------	---

Fire destroys the building, and a store across the street suffers smoke damage.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE Building Across Street
------------------------	---

No smoke damage.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE No Smoke Damage
------------------------	--

Codes © NFPA 1976

EXTENT OF SMOKE DAMAGE

Describe extent of smoke and heat scorched or "browned" damage of a structure.

1. Confined to the object of origin.
2. Confined to part of room or area of origin.
3. Confined to room of origin.
4. Confined to fire-rated compartment of origin.
5. Confined to floor of origin.
6. Confined to structure or origin.
7. Extended beyond structure of origin.
9. No damage of this type.
0. Extent of Smoke Damage undetermined or not reported.

Coded Examples

Smoke damage is confined to room of origin.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE Smoke Damage in Room of Origin 3
------------------------	---

Fire destroys the building, and a store across the street suffers smoke damage.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE Building Across Street 7
------------------------	---

No smoke damage.

EXTENT OF FLAME DAMAGE	EXTENT OF SMOKE DAMAGE No Smoke Damage 9
------------------------	--

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P DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
------------------------	-----------------------

Detector Performance

Definition

The existence and location of fire detection equipment relative to the area of fire origin and whether the detection equipment worked. The type of equipment also may be noted in the remarks section.

Purpose

This entry provides information on the usage, reliability, and effectiveness of automatic detection equipment. This information is important to the understanding of fire control and life safety with and without detection equipment. This item is not designed to evaluate any alarm transmission capability of the system, but only the detection of the fire.

Entry

Indicate the location and operation of detectors. Use the Remarks section to indicate the type of detectors present, such as heat or smoke, ionization or photoelectric, battery-powered or house-wired.

Example

No detectors were present in a structure where a fire occurred.

P DETECTOR PERFORMANCE No Detectors	SPRINKLER PERFORMANCE
---	-----------------------

Heat detectors in the room of origin activate from a fire.

P DETECTOR PERFORMANCE Detectors in Room Operated	SPRINKLER PERFORMANCE
---	-----------------------

Codes © NFPA 1976

DETECTOR PERFORMANCE

1. Detector(s) in the room or space of fire origin, and they operated.
2. Detector(s) not in the room or space of fire origin, and they operated.
3. Detector(s) in the room or space of fire origin, and they did not operate.
4. Detector(s) not in the room or space of fire origin, and they did not operate.
5. Detector(s) in the room or space of fire origin, but fire too small to require them to operate.
8. No detectors present.
9. Performance of Fire Detection Equipment not classified above.
0. Performance of Fire Detection Equipment undetermined or not reported.

Coded Examples

No detectors were present in a structure where a fire occurred.

P	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
	No Detectors 8	

Heat detectors in room of origin activate from a fire.

P	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
	Detectors in Room Operated 1	

Sprinkler Performance

Definition

The presence of automatic sprinklers at the time of a fire, and whether they worked.

Purpose

Helps evaluate the usage and reliability of sprinklers in suppressing fires. Sprinkler usage then can be considered by fixed property use. Within each property use, losses with and without sprinklers can be compared.

Entry

Indicate the status and operation of sprinklers. If the performance was not satisfactory, circumstances should be explained in the Remarks section if necessary.

Examples

No sprinklers present in a house fire.

P	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
		No Sprinklers

Two sprinklers in the room of origin operated and extinguished the fire.

P	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
		2 Sprinklers Extinguished

Codes © NFPA 1976

SPRINKLER PERFORMANCE

1. Equipment operated.
2. Equipment should have operated but did not.
3. Equipment present but fire too small to require operation.
8. No equipment present in room or space of fire origin.
9. Performance of Automatic Sprinklers not classified above.
0. Performance of Automatic Sprinklers undetermined or not reported.

Coded Examples

No sprinklers present in a house fire.

DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
	No Sprinklers 8

Two sprinklers in the room of origin operated and extinguished the fire.

DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
	2 Sprinklers Extinguished 1

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Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	

If Smoke Spread Beyond Room of Origin: Type of Material Generating Most Smoke

Definition

Materials other than those first ignited may release heavy smoke. When smoke spread is beyond the room of origin, this element describes the material causing most of the smoke. The material may be within or outside the room of origin. The Type and Form of Material generating most smoke should describe the same material.

Purpose

The identification of smoke-producing materials can be used to evaluate structural design and mechanical air handling systems for limiting the movement of smoke through buildings. This entry can be correlated with entries such as injuries and fatalities, dollar loss, construction type, and detector performance to provide significant information.

Entry

Identify and record the material that produced most of the smoke. This item should be completed only for fires in which smoke damage extends beyond the room of origin, regardless of whether the flame damage extended outside the room. The Codes for the types of materials for this entry are almost identical to those used for the Type of Material Ignited entry (line L). If smoke did not spread beyond the room of origin, enter "n/a" and code "98."

Examples

Cotton curtains in a kitchen produce most smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE Cotton	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	

A fire involves furniture with foam rubber cushions producing heavy smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE Foam Rubber	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	

A fire where smoke was confined to the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE No Spread	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	

TYPE OF MATERIAL GENERATING MOST SMOKE

1. GAS

11. Natural gas.
12. LP-City Gas (LP and air mix).
13. Manufactured gas.
14. LP-gas.
15. Anesthetic gas.
16. Acetylene.
17. Specialty gas other than anesthetic.
19. Gas not classified above.
10. Gas; insufficient information available to classify further.

2. FLAMMABLE, COMBUSTIBLE LIQUID

Classification information is given in, NFPA Nos. 321 and 325M.

21. Class IA flammable liquid.
Flash point less than 73OF (22.80C) and boiling point less than 100oF (37.80C). Included are ethyl ether, pentane, and ethylene oxide.
22. Class IB flammable liquid.
Flash point less than 73OF (22.80C) and boiling point at or above 100oF (37.80C). Included are acetone, ethyl alcohol, JP-4 jet fuel, and methyl ethyl ketone. Excluded is gasoline (23).
23. Gasoline.
24. Class IC flammable liquid.
Flash point at or above 73OF (22.80C) and below 100OF (37.80C). Included are butyl alcohol, propyl alcohol, styrene, and turpentine.
25. Class II combustibile liquid.
Flash point at or above 100OF (37.80C) but less than 140°F (600C). Included are kerosene, Nos. 1, 2, 4 and 5 fuel oil, and diesel fuel.
26. Class IIIA combustibile liquid.
Flash point at or above 140°F (600C) but less than 200°F (93.40C). Included are No. 6 fuel oil, cottonseed oil, and creosote oil.
27. Class IIIB combustibile liquid.
Flash point at or above 200°F (93.4oC). Included are cooking oil, transformer oil, and lubricating oil.
29. Flammable, Combustible Liquid not classified above.
20. Flammable, Combustible Liquid; insufficient information available to classify further.

3. VOLATILE SOLID, CHEMICAL

Volatile solids are materials with a melting point between 100oF and 200OF.

31. Fat, grease (food).
Included are butter, tallow, margarine, and lard.

32. Grease (nonfood).
Included are petroleum jellies.
 33. Polish.
Included are paraffin wax.
 34. Adhesive, resin, tar.
Included are glue; gelatin, rosin; damas, elemi, kauri, asphalt, pitch, contact cement, soot, carbon and creosote.
 35. Applied paint, varnish.
 36. Combustible metal.
Included are magnesium, titanium, and zirconium.
 37. Solid chemical (specify type).
Included are explosives. Excluded are liquid chemicals (division 2) and gaseous chemicals (division 1).
 38. Radioactive material.
 39. Volatile Solid, Chemical not classified above.
 30. Volatile Solid, Chemical; insufficient information available to classify further.
- ### 4. PLASTIC
- Included are all forms of plastic whether rigid, semi-rigid, flexible, or foamed.
41. Polyurethane.
Included are polyisocyanurates.
 42. Polystyrene.
Included are styrene copolymers such as styrene-acrylonitrile (SAN), styrene-butadiene, and acrylonitrile-butadiene-styrene (ABS).
 43. Polyvinyl.
Included are polyvinyl chloride (PVC), polyvinyl fluoride, polyvinylidene chloride, polyvinylidene fluoride, and vinyl chloride-acrylonitrile.
 44. Polyacrylic.
Included is polymethyl methacrylate (PMMA).
 45. Polyester.
included are fiberglass reinforced polyesters.
 46. Polyolefin.
Included are polyethylene and polypropylene.
 49. Plastic not classified above.
 40. Plastic; insufficient information available to classify further.
- ### 5. NATURAL PRODUCT
51. Rubber.
Included are synthetic rubbers.
 52. Cork.
 53. Leather.
 54. Grass, leaves, hay, straw.
 55. Grain, natural fiber (pre-process).
Included are, feathers, felt, kapok, hesian, hemp, sisal, jute, cocofilm, flax, and cotton.
 56. Coal, coke, briquettes, peat.

- 57. Food, starch.
Excluded are fat and grease (31).
- 58. Tobacco.
- 59. Natural Product not classified above.
- 50. Natural Product; insufficient information available to classify further.
- 6. WOOD, PAPER**
- 61. Growing wood.
- 62. Felled but unsawn wood.
- 63. Sawn wood.
included are ail finish lumber.
- 64. Wood shavings.
included are sawdust and excelsior.
- 65. Hardboard, plywood.
- 66. Fiberboard (low density material), wood Pulp*
Included are low density pressed wood fiber board products.
- 67. Paper, untreated, uncoated.
Excluded are waxed papers (83).
- 68. Cardboard.
- 69. Wood, Paper not classified above.
- 60. Wood, Paper; insufficient information available to classify further.
- 7. FABRIC, TEXTILE, FUR**
Classify by predominant type of material, except as shown in 72.
- 71. Man-made fabric, fiber, finished goods.
Excluded are rayons (72).
- 72. Cotton, rayon, cotton fabric, finished goods.
included are canvases and all polyester-cotton blends. Excluded is waterproof canvas made with materials compounded with oil (84).

- 73. Wool, wool mixture fabric, finished goods.
- 74. Fur, silk, other fabric, finished goods.
- 75. wig.
- 76. Human hair.
- 79. Fabric, Textile, Fur not classified above.
- 70. Fabric, Textile, Fur; insufficient information available to classify further.
- 8. MATERIAL COMPOUNDED WITH OIL**
- 81. Linoleum.
- 82. Oil cloth.
- 83. Treated and/or coated paper.
included is waxed paper.
- 84. Waterproof canvas.
Excluded is waterproof cloth of rayon covered with neoprene (72).
- 85. Oily rags.
Included are waste materials impregnated with oil.
- 86. Asphalt treated material.
- 89. Material Compounded with Oil not classified above.
- 80. Material Compounded with Oil; insufficient information available to classify further.
- 9. OTHER TYPE OF MATERIAL**
- 98. Type of Material not applicable.
- 99. Type of Material not classified above.
- 00. Type of Material undetermined or not reported.

Coded Examples

Cotton curtains in a kitchen produce most smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE Cotton	7 2	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE		

A fire involves furniture with foam rubber cushions producing heavy smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE Foam Rubber	5 1	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE		

A fire where smoke was confined to the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE No Spread	9 8	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE		

If Smoke Spread Beyond Room of Origin: Avenue of Smoke Travel

Definition

The main avenue along which the smoke traveled from the room or area of origin. The smoke can spread in many directions, such as horizontally through false ceiling spaces and vertically through stairwells. Both the direction and the avenue should be noted. Not all fires have a significant smoke spread avenue.

Purpose

The identification and analysis of smoke travel can be used to evaluate building design in limiting or controlling the movement of smoke. This information is also useful in improving fire suppression ventilation practices.

Examples

No avenue of smoke travel outside the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	No Travel

Smoke travels up an open stairway.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	Up Stairway

Codes © NFPA 1976

AVENUE OF SMOKE TRAVEL

1. Air handling duct.
2. Corridor.
3. Elevator shaft.
4. Stairwell.
5. Opening in construction. Included are gaps between slabs and walls, over doors, and the like.
6. Utility opening in wall.
7. Utility opening in floor.
8. No significant avenue of smoke travel.
9. Most Significant Avenue of Smoke Travel not classified above.
0. Most Significant Avenue of Smoke Travel undetermined or not reported.

Coded Examples

No avenue of smoke travel outside the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	No Travel 8

Smoke travels up an open stairway.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	
			Up Stairway 4

If Smoke Spread Beyond Room of Origin: Form of Material Generating Most Smoke

Definition

Materials other than those first ignited may release heavy smoke. When smoke spread is beyond the room of origin, this element describes the form of material causing most of the smoke. The material may be within or outside the room of origin. The Type and Form of Material generating most smoke should describe the same material.

Purpose

The identification of smoke-producing materials can be used to evaluate structural design and mechanical air handling systems for limiting the movement of smoke through buildings. This entry can be correlated with entries such as injuries and fatalities, dollar loss, construction type and detector performance.

Entry

Identify and record the form of material that produced most of the smoke. This item should be completed only for fires in which smoke damage extends beyond the room of origin, regardless of whether the flame damage extended outside the room. The Codes for the form of materials for this entry are almost identical to those used for the Form of Material Ignited entry (Line L). If smoke did not spread beyond the room of origin, enter "n/a" and code "98."

Examples

Cotton curtains produce most smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	
		Curtains	

A fire involves furniture with foam rubber cushions producing heavy smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	
		Chair Cushions	

A fire where smoke was confined to the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		FORM OF MATERIAL GENERATING MOST SMOKE	
		No Spread	

**IF SMOKE SPREAD BEYOND ROOM OF ORIGIN:
FORM OF MATERIAL GENERATING MOST
SMOKE**

1. STRUCTURAL COMPONENT, FINISH

11. Exterior roof covering, surface, finish.
12. Exterior sidewall covering, surface, finish.
Included are eaves.
13. Exterior trim, appurtenances.
Included are doors, porches, and platforms.
14. Floor covering, surface.
Included are tile, carpet, rug, flooring, and stairs.
15. Interior wall covering, surface Items permanently affixed to wall and door surface. included are cloth wall coverings. Excluded are Curtains and draperies (36).
16. Ceiling covering, surface.
Included are cloth permanently affixed to ceiling, and acoustical tile.
17. Structural member, framing.
18. Thermal, acoustical Insulation within wall, partition, or floor/ceiling space.
19. Structural Component, Finish not classified above.
10. Structural Component, Finish; insufficient information available to classify further.

2. FURNITURE

- Included is built-in furniture.
21. Upholstered sofa, chair, vehicle seats.
 22. Nonupholstered chair, bench.
 23. Cabinetry.
Included are filing cabinets, pianos, dressers, chests of drawers, desks, tables, and bookcases. Excluded are TV set and organ housings, bottle warmers, and appliance housings (25).
 24. Ironing board.
 25. Appliance housing or casing.
 29. Furniture not classified above.
 20. Furniture; insufficient information available to classify further.

3. SOFT GOODS, WEARING APPAREL

31. Mattress, pillow.
32. Bedding, blanket, sheet, comforter.
Included are heating pads.
33. Linen, other than bedding.
Included are 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.
Included are fabrics and yard goods.
38. Luggage.
39. Soft Goods, Wearing Apparel not classified above.

30. Soft Goods, Wearing Apparel; insufficient information available to classify further.

4. ADORNMENT, RECREATIONAL MATERIAL

41. Christmas tree.
42. Decoration for special event.
43. Book.
44. Magazine, newspaper, writing paper.
Included are files.
45. Toy, game.
46. Awning, canopy.
47. Tarpaulin, tent.
49. Adornment, Recreational Material not classified above.
40. Adornment, Recreational Material; insufficient information available to classify further.

5. SUPPLIES, STOCK

51. Box, carton, bag.
52. Basket, barrel.
53. Pallet, skid (not in use).
54. Rope, cord, twine, yarn.
55. Packing, wrapping material.
56. Bale Storage.
57. Bulk storage.
58. Cleaning supplies.
Included are brooms, brushes, mops, and cleaning cloths.
59. Supplies, Stock not classified above.
50. Supplies, Stock; insufficient information available to classify further.

6. POWER TRANSFER EQUIPMENT, FUEL

61. Electrical wire, cable insulation.
62. Transformer.
63. Conveyor belt, drive belt, V-belt.
64. Tire.
65. Fuel.
69. Power Transfer Equipment, Fuel not classified above.
60. Power Transfer Equipment, Fuel; insufficient information available to classify further.

7. GENERAL FORM

71. Agricultural product.
72. Fence, pole.
73. Fertilizer.
74. Growing, living form.
Included are forests, brush, and grass.
75. Rubbish, trash, waste.
Included are soot and creosote buildup.
76. Cooking materials.
77. Sign.

8. SPECIAL FORM

81. Dust, fiber, lint.
82. Pyrotechnics, explosives.
83. Atomized, vaporized liquid.
84. Chips.

- 85. Palletized material, material stored on pallets.
- 86. Gas or liquid in or from pipe or container. Included are accelerants.
- 87. Rolled material. Included is rolled paper.
- 88. Adhesive.

9. OTHER FORM OF MATERIAL

- 98. Type of Material not applicable.
- 99. Form of Material not classified above.
- 00. Form of Material undetermined or not reported.

Coded Examples

Cotton curtains produce most smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		Curtains	1316

A fire involves furniture with foam rubber cushions producing heavy smoke.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		Chair Cushions	1211

A fire where smoke was confined to the room of origin.

Q R	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN	TYPE OF MATERIAL GENERATING MOST SMOKE	AVENUE OF SMOKE TRAVEL
		No Spread	1918

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This section of the incident form consists of lines S and T. These entries are made If a mobile property was Involved In an Incident In which a fire or casualty occurred (line S), or If equipment was Involved in the ignition of a fire (line T). Line U Is completed on all Incidents.

S	IF MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL NO.	LICENSE NO.
T	IF EQUIPMENT INVOLVED IN IGNITION	YEAR	MAKE	MODEL	SERIAL NO.	

CHECK IF COMMENTS ON REVERSE SIDE

U	OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT)	DATE
	MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE)	DATE

IF MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL NO.	LICENSE NO.

If Mobile Property: Year, Make, Model, Serial Number, License Number

Definitions

a. "Mobile property" here refers to 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, mobile home (even if placed on a permanent foundation), motorcycle, or recreation vehicle.

b. "Year" refers to the year the property was manufactured. c. "Make" refers to the name of the manufacturer of the property.

d. "Model" refers to the manufacturer's model name. If one does not exist, use the common physical description of the property which is commonly used to describe it, such as "three-bedroom" (mobil home) or "Your door" (sedan).

e. "Serial Number" refers to the manufacturer's serial number which is generally stamped on an identification plate on the property.

f. "License Number (if any)" refers to the state and number on the license plates affixed to the vehicle: these are generally issued by the State bureau of motor vehicles. License numbers may also be available for boats, airplanes, and farm vehicles.

Purpose

These data elements provide detailed information to identify the specific types of mobile property involved in an incident, and can be used to determine whether particular brands or models are more often a problem than others. Some mobile properties such as mobile homes, buses, and airplanes are supposed to comply with fire codes, standards, and/or Federal regulations. Data on make, model, year, and other information are useful in determining the compliance to standards of mobile properties involved in fires and for analyzing the effectiveness of these codes, standards, and regulations. The data also can be used to see if the public needs to be alerted to special hazards and if more regulation is needed.

Entry

Be as specific as possible in making these entries. Place additional information in the Remarks section if necessary.

Examples

IF MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL NO.	LICENSE NO.
No Mobile Prop					

IF MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL NO.	LICENSE NO.
Automobile	1974	Buick	2 Dr. La Sabre	1442137162	BGH664

If Equipment Involved in Ignition: Year, Make, Model, Serial No.

Definition

- a. These entries refer to any item of equipment involved in the ignition of a fire. The entries do not include ignitions caused by other objects of exposures.
- b. "Year" refers to the year the item of equipment was manufactured.
- c. "Make" refers to the name of the manufacturer.
- d. "Model" refers to the manufacturer's name for the model. If no such name exists, use the common physical description of the item of equipment such as, "four burner stove" or "chest-type freezer."
- e. "Serial Number" refers to the manufacturer's serial number stamped on an identification plate affixed to the item.

Purpose

These entries identify specific manufactured equipment involved in ignitions. Knowing the frequency and severity of fires associated with various products makes it possible to focus public fire education on the most dangerous products and provides feedback to manufacturers and regulatory authorities.

Entry

Be as specific as possible in making these entries. If necessary, place additional information in the Remarks section.

Examples

IF EQUIPMENT INVOLVED IN IGNITION	YEAR	MAKE	MODEL	SERIAL NO.
Hot Plate	1959	Colony	XYZ	106-N78

IF EQUIPMENT INVOLVED IN IGNITION	YEAR	MAKE	MODEL	SERIAL NO.
Chimney Vent Connector	1977	Crane	4" Radius	None

Remarks Section

CHECK IF COMMENTS ON REVERSE SIDE

Definition

The Remarks box is checked if any remarks have been entered on the reverse side of the incident form or on a continuation sheet.

Purpose

Enables additional information to be recorded concerning the incident.

Entry

Place the additional comments on the reverse side of the incident form or on a separate continuation sheet. Key the remarks to the specific line entry with the line letter.

Example

LINE P - Detector Performance:

One Apex detector was functioning in the area of fire origin.

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Officer in Charge (Name, Position, Assignment), Date

Definition

The officer in charge is the ranking fire service person dealing with the incident. Position refers to the person's rank, and assignment refers to the job held at that particular time. The signature of the officer in charge and the date should be entered in this block. The date is the day the form is signed.

Purpose

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

Entry

The signature, position, and assignment of the officer in charge and the date should be entered.

Example

OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT)	DATE
Captain John E. Barnett	7/4/83
MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE)	DATE

Member Making Report (If Different from Above), Date

Definition

This entry will be completed if the member making the report is different from the officer in charge.

Purpose

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

Entry

The signature of the member completing the report and the date should be entered. If the Officer in Charge completed the report, enter "n/a" in this box.

Example

OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT)	DATE
MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE)	DATE
Louis R. James	7/4/83

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