

NFPA No.

901

UNIFORM CODING FOR FIRE PROTECTION 1976



NATIONAL FIRE PROTECTION ASSN.
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Uniform Coding for Fire Protection

NFPA No. 901 — 1976

1976 Edition of No. 901

This edition of NFPA No. 901 was officially adopted May 19, 1976 at the Annual Meeting of the National Fire Protection Association held in Houston, Texas. It incorporates changes recommended by the Committee on Fire Reporting and supersedes the 1973 edition.

With this edition, the standard has been reorganized as follows. Part I outlines objectives and concepts relevant to the coding, collection, and use of uniform information. Part II contains a glossary of important terms and standard abbreviations. Part III defines uniform categories for information that a particular fire defense manager may choose to collect. Part IV contains an alphabetical index of the classifications for some data elements.

Origin and Development of No. 901

As the objectives of fire defense management have narrowed from the control of conflagrations early in this century toward the control of fires in rooms, the need for uniform information about fire incidents as well as for an effective method of collecting and using that information has become recognized.

In 1938, a fire reporting system prepared by NFPA was published by the International City Manager's Association. This system served as a start toward the uniform reporting of fire incident information.

In 1951, the NFPA Committee on Fire Casualty Statistics was formed. The report of that Committee was adopted as NFPA Standard No. 3 in May, 1953. In its introduction, that standard contained the following quote: "The absence of accurate and detailed statistics on fire casualties has hindered attempts by educational and other means to reduce the number of deaths and injuries from fire."

In 1961, the NFPA Board of Directors, after two years of surveying the need, called a national conference on fire reporting. On the recommendation of that conference, an NFPA committee was formed in February, 1963 to devise a uniform and useful system of fire reporting adaptable to the needs of the fire service in the United States and Canada.

From 1963 to 1969, the Committee strived to develop a uniform language for fire defense management and issued tentative standards as work progressed.

In 1969, the five tentative standards were officially adopted as NFPA No. 901. The standard was updated in 1971 and 1973.

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This list represents the membership at the time the Committee was balloted on the text of this edition. Since that time, changes in the membership may have occurred.

Interpretation Procedure of the Committee on Fire Reporting

Those desiring an interpretation shall supply the Chairman with five identical copies of a statement in which shall appear specific reference to a single problem, paragraph, or section. Such a statement shall be on the business stationery of the inquirer and shall be duly signed.

When applications involve actual field situations they shall so state and all parties involved shall be named.

The Interpretations Committee will reserve the prerogative to refuse consideration of any application that refers specifically to proprietary items of equipment or devices. Generally inquiries should be confined to interpretation of the literal text or the intent thereof.

Requests for interpretations should be addressed to the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210.

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Uniform Coding for Fire Protection

NFPA No. 901 — 1976

PART I FIRE REPORTING SYSTEM

Introduction

Hostile fire is an international problem. Yet, it is only through analysis of information gathered on the local level that an intelligent approach to this problem can be made. To this end, there must be a common international language for the description of fire incident information and systematic methods must be available for the routine collection, processing, and use of significant local information. The major *objectives* of such an approach are the following:

(a) To provide for the routine collection of information required by a local fire service for legal purposes and control of its fire problem.

(b) To provide local fire service management with information to indicate trends, to measure the effectiveness of fire prevention and fire suppression measures presently in practice, to evaluate the impact of new methods, and to indicate those areas that may require further attention.

(c) To provide a local pre-fire inventory of all property in a fire service district so that future needs may be anticipated and potential problems corrected before a fire.

(d) To provide uniform data to regional, national, and international fire control organizations in order: to make the full extent of the fire problem known; to reveal facts that require action on these levels; to guide the effective development and administration of codes and standards; and to guide fire prevention and fire protection research.

Together, a common fire reporting language with a method for systematic information collection, processing, and use comprise a fire reporting system. It is only through such a system that a dependable body of facts, essential for a knowledgeable and economical attack on fire protection problems, can be developed.

While the system features have been primarily designed for fire service use, the coding and some features will find use in industrial concerns, government agencies, and insurance companies. Those keeping their data using definitions and codes compatible with this standard will be able to share and compare information.

Guiding Concepts for a Fire Reporting System

It is recognized that the need for information and the capability for collecting information is not the same for all of the fire services in the world. Also, most fire service organizations will probably desire to tailor their information collection efforts to their local requirements. However, the results of these efforts must be compatible so that each incident report will be another input into the battle to dominate hostile fire.

In order to assist a fire service that wishes to build its own fire reporting system and to realize the objectives of collecting and using uniform fire incident information, several guiding concepts have been developed.

These concepts are intended to ensure that any method used for the collection of fire data will be practical and compatible whether employed by a small fire service district using a ballpoint pen or by a large department using a powerful computer. The guiding concepts are:

(1) *Commitment*: Any fire reporting system should be based on commitment by each fire jurisdiction. Imposition of a particular reporting system on a particular fire service without that service's commitment may lead to inaccurate results and should be avoided. Methods for encouraging "voluntary use" are available.

(2) *Feedback*: The original information from reports, when combined and summarized, should provide feedback to the reporting officers. This will give them access to details that will help them manage the pre-ignition potential in their specific district and also encourage accurate input.

(3) *Simplicity*: A system should be based on a single incident record (file) on each fire service incident. The contents of that file will depend on the complexity of the incident and on the amount of follow-up information needed to understand that incident.

(4) *Raise Questions*: Any effective system should reveal both areas for action and areas for special study. Thus, a basic system should raise important questions, not try to give answers to all preconceived questions. Special studies should be planned on a geographical and on a limited time basis to get "the answers" to specific questions raised by the "everyday, every incident" basic system.

(5) *Use Words*: The original report from the officer in charge should be in his own words, accurately describing the situation he actually found. This standard may be used as an *aid* to word choice. Numeric codes may be added by the officer himself or by a central coding office.

(6) *Report All Incidents*: Every response should be reported regardless of the type or extent of the incident. The extent of the fire, the amount of damage, and the type of incident will be captured by the various elements of the incident report. An incident occurs when there is a response to any call for service, whether for fire, medical, or public service.

Types of Fire Reporting Systems

Six types of fire reporting systems are outlined below. In each system additional or special information can be collected as needed. For example: A locality may wish to keep special emergency medical treatment information beyond the casualty information provided in NFPA No. 901 or specific data on equipment utilization may be compiled.

Type A — Advanced Fire Defense Management System. Any fire reporting system that compiles data beyond that required by the Type B fire reporting system.

Type B — Fire Defense Management System. A system of fire reporting utilizing both the "Basic Property Report" and "Basic Incident Report" of the NFPA Standard 901 series. See Figure 1.

Type C — Advanced Fire Incident System. Any system compiling data beyond that required by the Type D fire reporting system.

Type D — Standard Fire Incident System. A suggested fire reporting system utilizing the "Basic Incident Report." Agencies correctly using this report within the definitions established by Standard 901 may be certified by a nationally recognized certification authority.

Type E — Simplified Fire Incident System. A suggested system utilizing certain portions of the "Basic Incident Report" only. This system will comply with the definitions and coding structure of the NFPA Standard 901 series.

Type F — Local Data System. Any system of local type using non-standard definitions or categories.

Systems Type A through Type E, outlined above, are compatible, and a locality, should it choose, can move up from one to the other on a programmed basis. For example, the fire service can start with a Type E system and plan two years later a move to Type D and in two more years to a Type B system.

Elements of Fire Reporting Systems

A fire reporting system contains three fundamental elements that are discussed in the following sections. They are:

- A method for information collection;

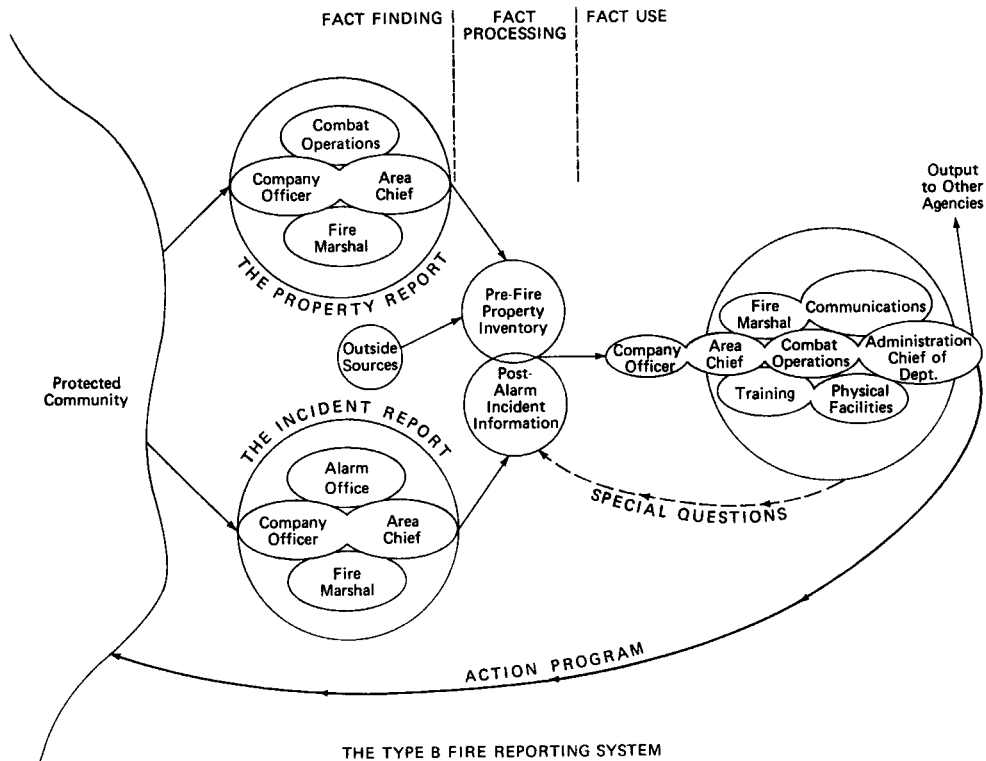


Figure 1

- A routine for typical information processing; and
- A procedure for the use of information.

The operations in the three elements are outlined in Figure 2.

Figure 2. The Three Elements of a Fire Reporting System

ELEMENT I

- | | |
|---------|--|
| Fact | A. Obtain Information |
| Finding | B. Complete Report Form |
| | C. Send Completed Report to Processing |

ELEMENT II

- | | |
|------------|------------------------------|
| Fact | D. Receive Completed Reports |
| Processing | E. Edit (and Code) Reports |
| | F. Enter Facts |
| | G. Process Facts |
| | H. Update Fact File |

ELEMENT III

- | | |
|------|---------------------------------------|
| Fact | I. Report Periodically |
| Use | J. Analyze these Reports |
| | K. Request Special Report (if needed) |
| | L. Decide Specific Action |
| | M. Act |
| | N. Analyze Results of that Action |
| | O. Return to J and Repeat |

Element I — Fact Finding. The traditional legal function of reports can be satisfied with as little as a written narrative of the basic facts of the incident. To serve as input to a fire reporting system, however, an incident report must be clearly structured and must use uniform definitions and terminology. The collection of information on an incident report requires a form or forms on which to record the information desired, instructions for completing the form(s) so that information within the reporting district is provided in a uniform manner, and a procedure for forwarding these forms to a central point. The Property Report and the update reports are similar.

The Property Report (optional). Any time a member of the fire service enters a property within his jurisdiction while on duty at other than an incident, a fire defense survey is being conducted, and a basic property report should be filed.

The purpose of the visit may be for checking a pre-fire plan, a hazard reduction inspection, or a fire equipment readiness evaluation (pumps, alarms, standpipes, etc.). The property report is part of the Type B and Type A fire reporting systems. The "Fire Fact File" for the Type A and B systems will include pre-fire property data as shown in Figure 3.

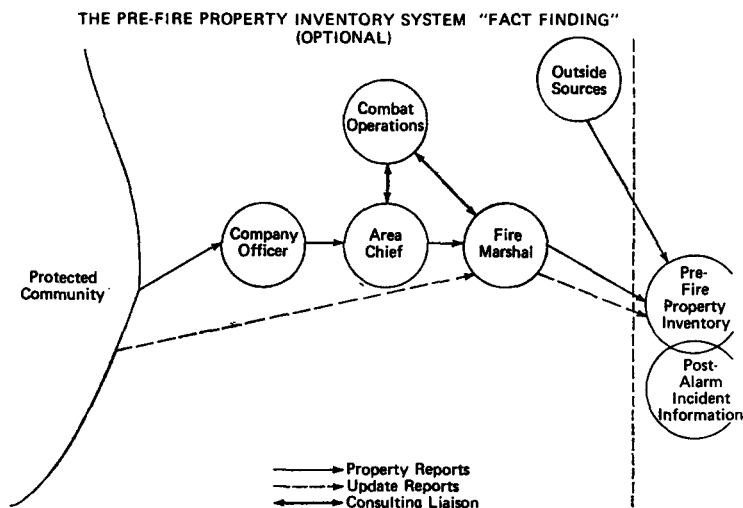


Figure 3

The Incident Report. Every time the fire service responds to an alarm, an incident occurs. The alarm may be for a fire, medical, rescue, or other public service. In all cases an incident report is filed.

An incident report is a part of a Type A, B, C, D, and E Fire Reporting System. Type C, D, and E systems are incident-only systems as shown in Figure 4.

Up-date Reports. Incident follow-up information may be obtained from in-department sources such as the fire investigator, or training officer. Out-of-department sources such as hospital personnel and insurance adjusters may yield helpful data. In both cases an "Up-date Report" is filed. Up-date reports are also useful in keeping property information current.

Other Sources. The "files" of the town clerk, the assessor's office, the building department, and the licensing board may contain data that will be useful in providing desired pre-fire information. Census data, if available, may be added. These outside sources may provide a useful base to the pre-fire file.

Element II — Fact Processing. The fact finding stage is only the first element of a fire reporting system. Once information has been received, it must be processed into a record useful for legal, planning, and management purposes. The first step in information processing involves checking the reports for accuracy and completeness, and then aggregating information about one property or one incident

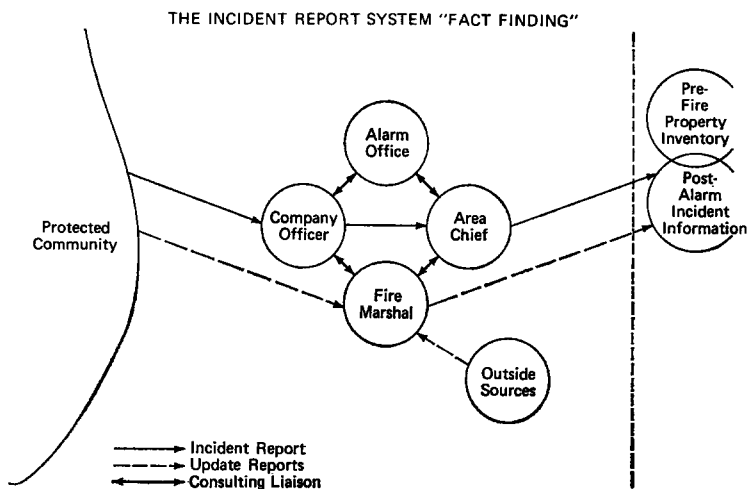


Figure 4

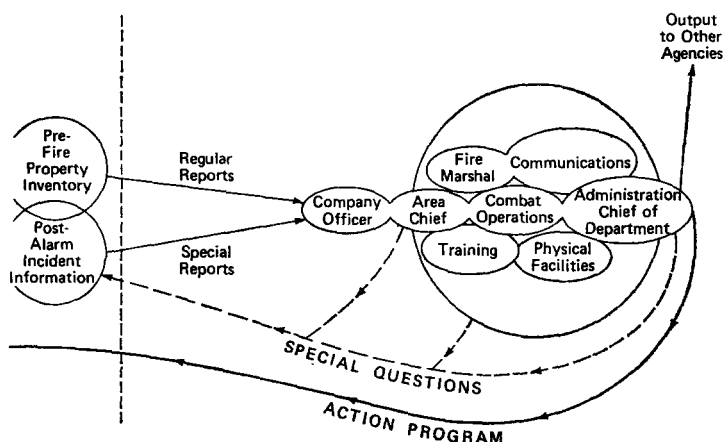
from several reports into a composite record. The second step involves the creation of a file consisting of all of the records of the reported surveys and incidents.

This "Fire Fact File" will constitute the basic source of information about past incidents and current building fire defenses. The use to which the "Fire Fact File" is put will determine, to a large extent, the facts that must be recorded on the incident report, and the property report (if used).

Element III — Fact Use. Once a "Fire Fact File" has been generated, it may have many potential uses. At the least, it should meet the informational needs of all the sectors of the local fire service. These include both information required from a legal standpoint and information needed for periodic reports. A specific use is to feed back to the company officers data on their specific part of the protected community. A more general use would be to spot trends in fire incidence and to provide data for program evaluation and corrective action on a chief officer level (see Figure 5).

Even though a small fire department may have an incidence level that is too low for meaningful statistical evaluation, the data collected may be sufficient to provide information useful in their planning.

Data combined from surrounding districts will be even more useful. Thus, through each incident report, the company officer, the fire service manager, and the chief of the department can work to "manage" their local problem. Regional and national authorities can "manage" their interests.



THE FACT USE SYSTEM

Figure 5

Another vital function of an effective system is to provide input to those designing and marketing new equipment (potential ignition sources), and to those designing and providing interior finishes and furnishings (available fuels), so that the total effort of all concerned can continue to reduce the real fire problem. The Systems Concepts Committee of NFPA and the "Decision Tree" will count upon the output of this system on a continuing basis.

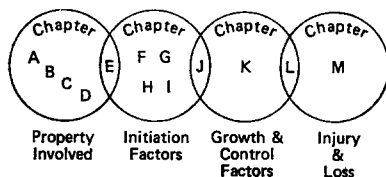
Each time a method of fire defense works well and the fire loss and danger is confined to a small area, the "success" will increase the confidence in that particular method of fire defense. Conversely, each time a method of fire defense fails, as indicated by an expensive loss or by injuries or death, then this failure needs to be recorded so that the confidence in that method of fire defense can be reduced.

On an even broader scale, industry, educators, architects, research scientists, and fire protection engineers can work as an international team with fire service managers to reduce the fire problem as it has been defined by data merged from local "Fire Fact Files."

Uniform Coding

This standard provides a common language for the reporting of fire incidents and fire defense features as well as provides convenient numeric codes for various categories of fire protection information. Some local fire services may find that they have special problems

that are not covered in sufficient detail by these categories. For example, a fire department may have an important fire problem in a particular type of tenement building common in its area that it wishes to record. This department may wish to devise its own numeric code to report that problem or to report any other information that it desires. It is important, however, that the reports generated by this department be compatible with and transformable into the categories used in this standard. The overall relationship of this common language may be visualized from Figure 6.



ORGANIZATION OF THE CHAPTERS OF PART III

Figure 6

Property Classification. The first three chapters of Part III of this standard (Chapters A, B, C) identify the type of property in which the incident occurred. A method is provided for classification of practically every type of property. Chapter A identifies a “complex” (multi-use property) such as an airport, university campus, or major hotel. Chapter B identifies a specific “fixed property” by its *use* such as restaurant, shoe store, dwelling, or fire station. Chapter C identifies a “mobile property” by *type* such as automobile, aircraft, ship, or fire apparatus.

Pre-fire Information. Chapter D identifies those features which are important in assessing the relative fire risk of a specific piece of property prior to an incident.

Ignition Characteristics. Chapters E through J identify those factors which are important in starting fires. In order to reduce the probability of ignition, it is important to understand the reasons for the occurrence of ignition.

Chapter E defines the room or space of origin by its *use*.

The equipment involved in the ignition (Chapter F) and the form of the heat of ignition (Chapter G) identify the thermal characteristics starting the fire. All fires must start from thermal energy, and Chapters F and G identify the source of that energy.

The material first ignited is identified by its *type* in Chapter H and by its *form* in Chapter I. A wooden table is thus identified differently than a plastic table. While all fires must have thermal energy to

ignite, they usually need "kindling fuels" to be ignited, and Chapters H and I identify the first material ignited.

Obviously, if thermal energy cannot get to the material to be ignited, then there will be no ignition. The reason that the heat and the fuel got together is identified by the "ignition factors" (Chapter J).

Incident Report. The factors surrounding the incident, what was found on arrival, what action was taken, and perhaps most importantly, why the incident got as big as it did are covered in the "incident report" (Chapter K). All fires must ignite, but only some become dangerous or fatal fires.

The extent of damage, the loss of property, and the investment in manpower provided by the community are categorized in Chapter L.

Information on injury to persons, whether or not fatal, is collected in broad categories in Chapter M.

Alphabetical Breakdowns. While the logic of the coded categories is shown in Part III, alphabetical breakdowns for many of these categories are available in Part IV.

Special Industry Breakdowns. The committee recognizes the fact that some industries wish more detail concerning some types of fires. Appendix A of this standard has been reserved to allow any special interest group to publish a more finite breakdown of a particular section of a category. The use of these breakdowns by the reporting agency is optional, and such breakdowns are compatible with the 901 elements within each category.

Coding Conventions

To ensure that a minimum number of errors are made when incident information is transcribed into numerical codes and later processed, several coding conventions have been used throughout this standard. They are:

Pyramid Structure. Some categories of information in this standard (e.g., Chapter B, Fixed Property Use) are broken down into great detail. To encode the maximum level of detail may require the use of as many as three digits. However, some agencies may wish to incorporate less detail into their fire reports. Therefore, the codes have been designed so that the last digit in a two-digit code, or even the last two digits in a three-digit code can be dropped while retaining the broad meaning of the category. It is recommended, however, that as much information be retained as practical for it is very difficult to gather later.

Unclassified Information — Code “9.” Sometimes it may be found that a division breakdown within a category does not contain a numeric code for a specific detail that is on the report. For example, in Chapter F under “cooking equipment,” numeric codes 21 to 27 are provided to encode a variety of types of common cooking equipment. If a type of cooking equipment involved in ignition is not listed in these categories, and from the terms and definitions used in each subdivision it does not appear that it should be classified in one of the existing subdivisions, then it is “not classified above.” Code “9” is used throughout the standard to mean that it is in this group, the type is known, but it is not listed or does not belong in one of the subdivisions above. Therefore, in Chapter F, Code “29” indicates “cooking equipment not classified above.” As always, it is recommended that the exact item be described in the reporting officer’s own words on the fire report.

Insufficient Information — Code “0.” In some cases there will be insufficient information to use a detailed numeric code. In such situations, the final digit is replaced by zero to mean — it is in this group — the type is not known. The final digit is not left out. Therefore, in Chapter F, Code “20” indicates “cooking equipment; insufficient information available to classify further” or “undetermined or not reported.” This pattern is followed throughout the standard.

Not Applicable — Code “8.” There are some categories in this standard, such as “Number of Casualties,” that may be “not applicable” to a given incident or to which the answer may be “none.” The numeric Code “8” has been reserved in these categories to encode such information. Therefore, if a fire report requests the number of casualties at an incident, and there were none, the Code “8” should be used. In no case should a data element be left blank, as this may lead to errors.

Information Not Added Up

Information within an incident reporting system falls into two categories: that which there is no need to “add up” but which provides information about the incident (noncoded data), and that which may be coded for tabulation (coded data).

While it is not the purpose of this standard to define what information should be reported, there is certain administrative and legal information that is desirable to have in any incident report. The location of the property or incident is one of the most important examples. This information may be captured by recording data such as:

- (a) Street name and street number.

- (b) Local name and designation of property.
- (c) Community or subdivision.
- (d) City, county, state, or province including post office code.
- (e) Census tract.
- (f) Property representative to contact.
- (g) Address and telephone number of property representative.

There will also be categories for which an item will be reported and coded but for which additional information may be desirable. An example of this kind of information is the location and type of a piece of equipment involved in the start of a fire.

A report may capture additional information about that piece of equipment by using a noncoded format such as:

- (a) The manufacturer's name.
- (b) The model designation.
- (c) The year of manufacture or the serial number.
- (d) If the equipment is electrical, the voltage it is designed to operate on.

Likewise, for a vehicle involved in a fire, the make, model, year of manufacture, and the vehicle identification number might be recorded.

Numeric Information

There is information that a fire service may wish to capture and that can be directly recorded as numbers. This is particularly applicable to resources utilized (men, apparatus, and equipment) and the number of casualties at an incident. These entries can easily be recorded as actual numbers without the use of special codes.

Revision Cycle

This edition of the standard concludes the major work by the committee to develop the complete system of data elements. It is well recognized by the committee members that the quality of individual sections needs to be improved from time to time.

The committee has selected a five-year revision cycle for the standard. Those wishing to provide input for the next revision for any item, data element, article, chapter, or part should communicate with the committee secretary at the address shown in the committee list.

PART II — GLOSSARY AND ABBREVIATIONS

Glossary

The terminology used in this standard provides a common language for recording information about fire department incidents. The following terms are used as defined and discussed below.

ACTION CASUALTY. A person injured or killed *after* the alarm for the incident is received, but not a “fire casualty.” (*See Chapter M, Part III.*)

ALARM. Any notification made to the fire department that a situation exists or may exist that requires a response.

AREA OF ORIGIN. The specific use of the area within the property where the fire originated. (*See Chapter E, Part III.*)

AUTOMATIC. As applied to fire protection devices, a device or system providing an emergency function without the necessity of human intervention.

BUILDING. A structure enclosed with walls and a roof and having a defined height.

BUILDING FIRE. Any fire occurring inside or involving a building. A building fire may be a wastebasket fire, a mattress fire, or a roof fire, whether or not structural members were actually involved.

CASUALTY. A person injured or killed before or during an incident. Incident casualties are divided into fire casualties, action casualties, and EMS casualties. (*See Chapter M, Part III.*)

CENSUS DATA. Available statistical information that includes population totals by sex, race, and age, by household membership and relationships, and by marital status and family type. Also available may be housing by dollar value of owner- and renter-occupied dwellings, white and black occupancy, migratory occupancy; number and income status of occupants, persons per room, sex of family head, presence of nonrelatives in the household; type of kitchen, bathing and toilet facilities; type of structure and water supply, foundation of basement, telephone service, amount of monthly rent or dollar value of owned homes, vacancy status, and number of rooms.

CENSUS TRACT. An area of land within a country about which there is census data available. In the United States, census tracts are identified by a six-digit number assigned by the U. S. Bureau of the Census. The first four digits identify the “basic” tract, while the final two digits identify a subdivision into two or more tracts of what was originally a single tract. Census tract numbers are always unique within a county, usually unique within a Standard Metro-

politan Statistical Area (SMSA), and in a few instances unique within a state.

CHAR. Material that has been partially burned on the exterior and has a blackened, carbonized appearance.

COMBUSTIBLE. A material or structure that will burn.

COMBUSTIBLE LIQUID. Any liquid having a flash point of or above 100°F (37.8°C) (closed cup).

COMPLEX. A single building containing two or more specific fixed property uses, more than one building of the same or different fixed property use or other multiuse property, located within a continuous boundary and operated under one business management or ownership. (*See Chapter A, Part III.*)

CONTENTS FIRE. A term no longer used in fire reporting. All fires inside buildings are classified as "building fires."

DEATH. An injury that is fatal or becomes fatal within one year of the incident.

EMS (EMERGENCY MEDICAL SERVICE) CASUALTY. A person injured or killed *before* the alarm for the incident is received but for whom the alarm is sounded, but not a "fire casualty." (*See Chapter M, Part III.*)

EXPLOSION. Violent bursting caused by either a combustion process or an over-pressure condition. Typical combustion processes include ignition and burning of combustible gas, dust, or flammable vapor mixture. These are technically "fires." Typical over-pressure conditions include steam pressure, chemical reactions, and compressed gas container rupture. These are technically not "fires."

EXPOSURE. Any fixed or mobile property that may present a potential fire threat to any other fixed or mobile property.

EXPOSURE FIRE. A fire in a building, structure, vehicle, or outside property resulting from a fire outside that building, structure, vehicle, or outside property. 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 involved 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.

FIRE. Any instance of destructive and uncontrolled burning, including explosion, of combustible solids, liquids, or gases. Fire does not include the following, except where they cause fire or occur as a consequence of fire:

- (a) Lightning or electrical discharge.
- (b) Explosion of steam boilers, hot water tanks, or other pressure vessels due to internal pressure and not to internal combustion.
- (c) Explosion of ammunition or other detonating material.
- (d) Accident involving ship, aircraft, or other vehicle.
- (e) Overheat condition.

FIRE AREA. The space within a structure bounded by fire division assemblies (two-hour fire rating or greater).

FIRE BLACKOUT. That point in time when there is no longer flame.

FIRE CASUALTY. A person injured or killed as a direct result of a fire *before or after* the alarm for the incident. (*See Chapter M, Part III.*)

FIRE DIVISION WALL. A "fire rated wall" which has a fire rating of two hours or longer.

FIRE EXTINGUISHED. That point in time when there is no longer any abnormal heat or smoke being generated in material that was previously burning.

FIRE RATED WALL. A wall constructed of an assembly that has been tested using standard test methods and has received at least a thirty-minute rating.

FIRE REPORT. The incident report on a fire.

FIRE UNDER CONTROL. That point in time when a fire is sufficiently surrounded and quenched so that in the judgment of the commanding officer it no longer threatens destruction of additional property.

FIXED OBJECT. An object, device, or appliance that is fastened or secured at a specific location, e.g., a steam radiator.

FIXED PROPERTY USE. The use to which a particular fixed location is put whether that location be a structure or an open area. (*See Chapter B, Part III.*)

FLAME. Products of combustion that are illuminated by the heat of combustion and accompany the burning of most materials in normal atmospheres.

FLAMMABLE LIQUID. Any liquid having a flash point below 100°F (37.8°C) (closed cup) and having a vapor pressure not exceeding 40 psia (2068.6mm) at 100°F (37.8°C).

GAS. A material that has a vapor pressure exceeding 40 psia (2068.6mm) at 100°F (37.8°C). The word gasoline is always spelled out in this standard. It is a flammable liquid, not a gas.

HEAT OF IGNITION. The heat energy which brings about ignition. Heat energy comes in various forms and usually from a specific object or source. Therefore, the heat of ignition is divided into two parts: "equipment involved in ignition" and "form of heat of ignition." (See *Chapters F and G, Part III.*)

IGNITION. The physical and chemical processes involved in reaching a point of self-perpetuation whether or not there is an open flame.

IGNITION FACTOR. The condition or situation that allowed a heat source and a combustible material to combine to initiate a fire. (See *Chapter J, Part III.*)

INCIDENT. The movement of a piece of fire service apparatus or equipment in response to an alarm.

INCIDENT RECORD. The official fire department file on an incident. For a simple "lockout" the incident record may be a single incident report. For a complicated fatal fire, on the other hand, the incident record may consist of a file containing the original incident report, fire company reports, several follow-up reports, narrative and newspaper accounts, photographs, as well as physical exhibits.

INCIDENT REPORT. A written document by the officer in charge of that particular operation. For understanding and legal purposes, this report should be in the officer's own words. For summarization purposes, the information on this report can be classified into broad categories. The incident report is always part of the incident record or file.

The incident report includes information on the time of the incident, the response to the incident, the action taken, as well as details of the incident, the damage, and the casualties.

INJURY. Physical damage to a person suffered as the result of an incident that requires (or should require) treatment by a practitioner of medicine within one year of the incident (regardless of whether treatment was actually received), or results in at least one day of restricted activity immediately following the incident.

LIQUID. A material that has a vapor pressure not exceeding 40 psia (2068.6mm) at 100°F (37.8°C).

MATERIAL FIRST IGNITED. The combustible that is first set on fire by the heat of ignition. To be meaningful, both a type of material and a form of material should be identified. (See *Chapters H and I, Part III.*)

MOBILE PROPERTY TYPE. Property which was designed to be movable whether or not it still is, e.g., vehicles, ships, and airplanes. (See *Chapter C, Part III.*)

NOT OCCUPIED. An area ready for use with contents or equipment present but with no person present.

OCCUPANCY. The purpose for which a building or portion thereof is intended to be used. The fixed property use as it pertains to a building is the occupancy.

OCCUPIED. An area with persons present. A hotel (complex) could be occupied, but the restaurant (fixed property use) not occupied; likewise, the restaurant could be occupied but its storeroom (area of origin) not occupied.

OVERHEAT. Destruction of material by heat without self-sustained combustion. Removal of the heat source will stop the destruction. Overheat is the stage before ignition. (*See Chapter L, Part III.*)

PORTABLE OBJECT. An object, device, or appliance that can readily be moved from one place to another, e.g., a vacuum cleaner.

PROPERTY. A thing of value. Fixed property refers to those things that make up the earth's surface, i.e., water, land, roadways, structures, and buildings. Mobile property refers to those things that normally move in relation to the earth's surface, i.e., ships, airplanes, trains, trucks, and automobiles.

PROPERTY INVENTORY. Information known about a property before an ignition occurs. This knowledge is in two parts: that which is general in character and has to do with external features (such as location, water supply, and construction), and that which is specific in character relating to internal features (such as interior finish, vertical openings, or suppression systems).

PROPERTY USE. The use to which a property is put. A building, for example, could serve as a garage or a hospital or a department store. The use of property does not define any of the other important fire-related details of a property such as access, ownership, size, internal weaknesses in fire defense, or construction.

REPORTABLE FIRE. Any hostile fire coming to the attention of an agency keeping fire records. Included are fires that may be discovered in progress, discovered following extinguishment, or detected later during an inspection.

SCORCH. Discoloring (browning or blackening) of a material, a characteristic of the overheat condition. Removal of the heat source will stop the destruction.

SMOLDERING. Self-sustaining combustion of a material without any flame evident.

STATIONARY OBJECT. An object, device, or appliance that is not fastened but that is not readily moved from one place to another in normal use, e.g., a refrigerator.

STORY. That portion of a building between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building between the upper surface of the topmost floor and the upper surface of the roof above.

STRUCTURE. An assembly of materials forming a construction for occupancy or use in such a manner as to serve a specific purpose. A building is a form of a structure. Open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported structures, and grandstands are other forms of a structure.

STRUCTURE FIRE. Any fire inside a structure or on, under, or touching a structure. A structure fire may be an automobile fire in a *tunnel*, a ship fire under a *bridge*, or a leaking flange in a refinery *tower*.

VACANT. No furnishings or equipment present.

Abbreviations for States and Provinces

STATE AND PROVINCE CODES

Alabama	01	AL	Louisiana	22	LA
Alaska	02	AK	Maine	23	ME
American Samoa	03	AS	Maryland	24	MD
Arizona	04	AZ	Massachusetts	25	MA
Arkansas	05	AR	Michigan	26	MI
California	06	CA	Minnesota	27	MN
Canal Zone	07	CZ	Mississippi	28	MS
Colorado	08	CO	Missouri	29	MO
Connecticut	09	CT	Montana	30	MT
Delaware	10	DE	Nebraska	31	NE
District of Columbia	11	DC	Nevada	32	NV
Florida	12	FL	New Hampshire	33	NH
Georgia	13	GA	New Jersey	34	NJ
Guam	14	GU	New Mexico	35	NM
Hawaii	15	HI	New York	36	NY
Idaho	16	ID	North Carolina	37	NC
Illinois	17	IL	North Dakota	38	ND
Indiana	18	IN	Ohio	39	OH
Iowa	19	IA	Oklahoma	40	OK
Kansas	20	KS	Oregon	41	OR
Kentucky	21	KY	Pennsylvania	42	PA
			Puerto Rico	43	PR

STATE AND PROVINCE CODES (*Con't.*)

Rhode Island	44	RI	Alberta	60	AT
South Carolina	45	SC	British Columbia	61	BC
South Dakota	46	SD	Manitoba	62	MB
Tennessee	47	TN	New Brunswick	63	BR
Texas	48	TX	Newfoundland	64	NF
Utah	49	UT	Nova Scotia	65	NS
			Ontario	66	ON
Vermont	50	VT	Prince Edward Island	67	PE
Virginia	51	VA	Quebec	68	PQ
Virgin Islands	52	VI	Saskatchewan	69	SK
Washington	53	WA	Yukon	70	YU
West Virginia	54	WV	Northwest Territory	71	NW
Wisconsin	55	WI			
Wyoming	56	WY			

Abbreviations for Street Types

AV: Avenue	LP: Loop
BL: Boulevard	PY: Parkway
CL: Circle	PL: Place
CT: Court	RD: Road
DR: Drive	SQ: Square
EX: Expressway	ST: Street
FY: Freeway	TK: Turnpike
HY: Highway	TR: Terrace
LN: Lane	WY: Way

Abbreviations for Words Used in the Standard

bldg — building	mfg — manufacturing
constr — construction	stge — storage
elec — electrical	w/ — with
excl — excluding	w/o — without
incl — including	yr rnd — year-round
mchry — machinery	

PART III — ORGANIZATION OF DATA ELEMENTS

This part of the standard presents definitions, noncoded data, and coded data that lends itself to being “added up.” The categories are presented in numerical order, which is their logical sequence. Where deemed useful, an alphabetical list of terms for categories is presented in Part IV.

Chapter A. Property Complex

Purpose: A property *complex* designation is used to capture data on fires in multi-use property operated under one management.

Discussion: A grease duct fire in a restaurant in a hotel, or an explosion in a chemical laboratory of a university, presents a challenge to fire reporting.

Obviously, in the first case, if only “hotel” data are collected, then “restaurant” data will be lost. In the second example, if only “laboratory” data are collected, then “university” data will be lost. The use of a property complex code enables the user to capture both “hotel” and “restaurant” or both “university” and “laboratory” information.

Definition:

PROPERTY COMPLEX. A property meeting *all three* of the following criteria:

I. a. A single building containing two or more specific “fixed property uses” listed in Chapter B
or

b. More than one building of the same or different “fixed property use” listed in Chapter B
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.”

Examples: The following examples show how to code the “Property Complex” and “Fixed Property Use” for a few typical situations.

A fire in a clothing store (Property Use Code 521) of a shopping center (Complex 58) — 58-521.

A fire in a chapel (Property Use Code 131) at a university (Complex 20) — 20-131.

A fire involving a bridge (Property Use Code 921) owned by the railroad (Complex 95) — 95-921.

A fire in a children’s playhouse (Property Use Code 491) of a two-family dwelling (Complex 41) — 41-491.

A barn fire (Property Use Code 815) on a farm (Complex 65) — 65-815.

Coded Data: Only the following 25 “property complex” subdivisions are intended to be reported. These are the principal complexes actually found in the field. The dwelling complex code (41) should be used for all fires on one- and two-family dwelling property (garage, tent, fence, etc.). An alphabetical listing of property complex terms is presented in Chapter A’ in Part IV of this standard.

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.

If other properties meeting the definition for a complex as defined above are identified, they may be indicated by Complex Code 99.

Chapter B. Fixed Property Use

Purpose: Properties can be divided into those that are relatively fixed, e.g., buildings, bridges, and parking lots, and those that are relatively mobile, e.g., cars, airplanes, and ships. Any property may be put to a varying number of uses. The specific use affects the fire potential in that property.

The definitions and codes in Chapter B are provided to record the fixed property use. Where mobile property is also involved, it should be recorded using the subdivisions in Chapter C with the fixed property use associated with it classified here in Chapter B.

Discussion: The fixed property use classification that follows is divided into 9 major divisions with each major division representing the broad classifications used in the *Life Safety Code*, NFPA No. 101. These "major divisions" are divided into "divisions," and each "division" is further divided into "subdivisions" in a logical format that allows for different levels of detail (1, 2, or 3 digits) in reporting without destroying uniformity.

Fixed property use is intended to classify the use of the land or structures thereon. Things on this land or in the structure are classified in the remaining chapters. Every incident report for a fire or casualty should include a Fixed Property Use.

Definition:

PROPERTY USE. The use to which property is put. A specific building, for example, could serve as a garage or a hospital or a department store. The use does not define any of the other important fire-related details of a property such as access, ownership, size, internal weaknesses in fire defense, or construction. Each of these items may be found in other chapters of the standard.

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

1. Public Assembly Property
2. Educational Property
3. Institutional Property
4. Residential Property
5. Store, Office Property
6. Basic Industry, Utility, Defense Property
7. Manufacturing Property
8. Storage Property
9. Special Property

Coded Data: The logical coding structure and definitions for classifying fixed property use are presented here. An alphabetical listing of terms for "Fixed Property Use" is presented in Chapter B' in Part IV of this standard.

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, bath-houses, 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, Recreation Places not classified above.
- 120. Variable Use Amusement, Recreation 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 boys' 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. Heliport, helistop.
- 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 1.
- 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.
- 333. (This former subdivision is now subdivision 351.)
- 334. Clinic, clinic-type infirmary.
Included are separate clinic buildings for maternity and other uses.
Excluded are medical office buildings (593) and out-patient clinics (593).
- 335. (This former subdivision is now subdivision 361.)
- 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.
- 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 designed 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 mobile home not in transit, and used as a dwelling, should be classified here, and also as a “mobile building” (subdivision 17) in Chapter C — Mobile 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 Chapter C — 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.
- 413. (This former subdivision is now included in subdivision 412.)
- 414. Two-family dwelling: year-round use.
- 415. Two-family dwelling: seasonal use.
- 416. (This former subdivision is now included in subdivision 415.)
- 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.

45. This former division is now included in division 44.**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.

47. (This former division is now included in division 41.)**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. Textile, 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 ready-made 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 sales 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 multidepartment stores (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 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

Sale 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 supermarket 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 hospital 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 lubritorium 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.
- 578. 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 catalogue stores with display area regardless of size. Use subdivision 581 when applicable and when the mail order section is a small section of the larger store.
- 585. Mall.
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 contractor's job-site located shops and parts 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 Boiler-Turbine-Generator units driven by nonnuclear 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 Mobile Property Type, Chapter C.
- 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 Facilities not classified above.
- 630. Communications, Defense, Document Facilities; insufficient information available to classify further.

64. Utility, Energy Distribution Systems

- 641. (This former subdivision is now included in division 61.)
- 642. Electric transmission, distribution system.
Distribution of electricity outside generating plant premises.
Included are substations, transformers, and utility poles.
- 643. (This former subdivision is now subdivision 616.)
- 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. Forests, Hunting, Fishing not classified above.
- 660. Forests, Hunting, Fishing; insufficient information available to classify further.

67. Mining, Quarrying of Natural Raw Materials

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 non-metallic 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 products, 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 pasteurizing 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 (Mobile 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 manufacture 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 gin.

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-excelstior 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 moulding, 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.

760. 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 stage 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 available 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 special 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 phonographs 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, silage 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 (811), 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. Packaged 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 are 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; while 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 Chapters E through J.

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.
- 923. (This former subdivision is now included in 921.)
- 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 (655), 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).
- 969. Road, Parking Property not classified above.
- 960. Road, Parking Property; insufficient information available to classify further.

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. Oil, 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.

Chapter C. Mobile Property Type

Purpose: This chapter provides uniform categories for the classification of mobile types of property; i.e., cars, planes, and ships. Mobile units which have been abandoned or their intended use changed are also classified in the appropriate subdivision of this chapter.

Discussion: Mobile property is classified by its type here in Chapter C, and a fixed property use *is always classified also*. Where mobile or in transit, its *location* is identified in the appropriate section of Chapter B, Fixed Property Use. Where fixed, i.e., on a foundation or jacks, or in a location where there is no intent of moving it for a period of time, its *use* is identified in the appropriate section of Chapter B. In either case, its original mobile property type is classified in this chapter.

Definition:

MOBILE PROPERTY TYPE. Property which was designed to be movable in relation to fixed property whether or not it still is.

Examples:

A bus with passengers on a street. Fixed Property Use 962, Mobile Property Type 12.

A mobile home in transit on a shopping center parking lot. Fixed Property Use 965, Mobile Property Type 17.

A bus off its wheels and on jacks used as a snack bar. Fixed Property Use 164, Mobile Property Type 12.

A mobile home on a poured concrete foundation used as a one-family residence. Fixed Property Use 411, Mobile Property Type 17.

Noncoded Data: The following data should be recorded for each fire involving mobile property.

- a. Make.
- b. Model.
- c. Year of manufacture.
- d. Vehicle identification number.
- e. License plate number(s), if any.

Coded Data: The logical coding structure and definitions for classifying mobile property types are presented here. An alphabetical listing of terms for "Mobile Property Type" is presented in Chapter C' of Part IV of this standard.

1. Passenger Road Transport Vehicles

Motor vehicles such as automobiles, buses, or mobile 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 book-mobiles.
15. Travel trailer.
A portable structure built or placed on a chassis 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. Mobile home, mobile building.
A structure built on a chassis and designed to be pulled by a vehicle to a semi-permanent site.
Included are mobile 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 nonmotorized 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.
Excluded are mechanically moved waste containers (72).

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, Containers

- 71. Garden equipment.
Included are power driven lawn, yard, and snow equipment.
- 72. Mechanically moved waste container.
Included are bins that detach from trucks such as compactors and dumpers.
Excluded are trash trucks (27).
- 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.

Chapter D. Inventory of Fire Defenses for Structures and Buildings

Purpose: This chapter provides categories for creating an inventory of the critical details of fire defense in a structure or building before the ignition. All information in this chapter can be collected prior to an incident in the structure. If the structure is not inventoried before a fire incident, the information in this chapter may also be recorded after an incident in the structure to provide essential detail.

DA. Building Characteristics

DAA. Type of Construction

The construction classes are taken from NFPA No. 220. Fire-resistive ratings are determined by *Standard Methods for Fire Tests*, NFPA No. 251. Both heavy timber and ordinary construction classes have exterior bearing walls of noncombustible construction having a minimum fire resistance of 2 hours and stability under fire conditions; while roofs, floors, and interior framing are of combustible materials. The combustible materials must be heavier and stronger in heavy timber construction.

Categories from the three model codes listed below are also given to maintain uniformity in coding.

Basic Building Code (BBC), Building Officials and Code Administrators International, Inc., Chicago, Illinois.

Standard Building Code (SBC), Southern Building Code Congress, Birmingham, Alabama.

Uniform Building Code (UBC), International Conference of Building Officials, Whittier, California.

1. Fire resistive.
Included are BBC Types 1A, 1B; SBC Type I; UBC Type I.
2. Heavy timber.
Included are BBC Type 3A; SBC Type III; UBC Type III (HT).
3. Protected noncombustible or limited combustible.
Included are BBC Type 2A, 2B; SBC Type II, IV (1 hr.); UBC Type II, IV (1 hr.).
4. Unprotected noncombustible or limited combustible not qualifying for 3.
Included are BBC Type 2C; SBC Type IV; UBC Type IV (N).

5. Protected ordinary.
Included are BBC Type 3B; SBC Type V (1 hr.); UBC Type III (1 hr.)
6. Unprotected ordinary, not qualifying for 5.
Included are BBC Type 3C; SBC Type V; UBC Type III (N).
7. Protected wood frame.
Included are BBC Type 4A; SBC Type VI (1 hr.); UBC Type V (1 hr.).
8. Unprotected wood frame, not qualifying for 7.
Included are BBC Type 4B; SBC Type VI; UBC Type V (N).
9. Type of Construction not classified above.
0. Type of Construction undetermined or not reported.

DAB. Method of Construction

If a mix of construction methods exists in the structure, report the principle construction method used.

1. Site built structure.
2. Factory built, site assembled structure.
3. Factory built modular structure.
4. Factory built mobile structure.
9. Method of Construction not classified above.
0. Method of Construction undetermined or not reported.

DAC. Year of Construction

The year of construction, in many cases, will have to be an approximation.

1. Prior to 1900.
2. 1900 to 1919.
3. 1920 to 1939.
4. 1940 to 1949.
5. 1950 to 1959.
6. 1960 to 1969.
7. 1970 to 1979.
8. 1980 or later.
0. Year of Construction undetermined or not reported.

DAD. Structure Height

Measure or estimate to the highest structural member or peak, not including flag poles, antennas, and the like.

1. Grade 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 69 feet above grade.
6. 70 to 100 feet above grade.
7. Over 100 feet above grade.
8. Structure totally below grade.
0. Structure Height undetermined or not reported.

DAE. Number of Stories

The total number of stories of the structure including all 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.

DAF. Ground Floor Area

Estimate or measure the ground floor area at grade.

1. 0 to 999 sq. ft.
2. 1,000 to 4,999 sq. ft.
3. 5,000 to 9,999 sq. ft.
4. 10,000 to 19,999 sq. ft.
5. 20,000 to 49,999 sq. ft.
6. 50,000 to 99,999 sq. ft.
7. 100,000 to 499,999 sq. ft.
8. 500,000 sq. ft. and over.
0. Ground Floor Area undetermined or not reported.

DAG. Structure Type

The type of structure housing the fixed properties is grouped into classifications below. If the structure is a building, this category is subdivided into the single-use building and the multiple-use building (two or more uses). For example, a single-family dwelling is usually a single-use building; a bowling alley, shoe store, and gift shop combination is a multiple-use building.

1. Building with one fixed property use.
Included are buildings with earthen walls and fabricated roofs.

2. Building with two or more fixed property uses.
3. Open structure.
Included are roofs with no walls, open steel framings, bridges, trestles, outdoor process equipment, and outdoor tanks.
4. Air supported structure.
5. Tent.
6. Open platform.
Included are piers and wharves without super structure, loading docks without roof, and the like.
7. Underground structure.
Included are earth covered structures, tunnels, and mines.
8. Not a structure.
9. Structure Type not classified above.
0. Structure Type undetermined or not reported.

DAH. Property Value

Property value includes the estimated total value of the property; i.e., building value, plus machinery and equipment value, plus contents value.

1. 0 to 9,999 dollars.
2. 10,000 to 24,999 dollars.
3. 25,000 to 49,999 dollars.
4. 50,000 to 99,999 dollars.
5. 100,000 to 249,999 dollars.
6. 250,000 to 999,999 dollars.
7. 1,000,000 to 4,999,999 dollars.
8. 5,000,000 or more dollars.
0. Property Value undetermined, not reported or value sought but not available.

DB. Building Occupant Characteristics

DBA. Number of Occupants

The number of occupants is the measure of the legal number of people allowed to be inside the structure at the time of its maximum utilization. For details, see the *Life Safety Code*, NFPA No. 101.

1. Under 10 people.
2. 10 to 49 people.
3. 50 to 99 people.
4. 100 to 299 people.
5. 300 to 499 people.
6. 500 to 999 people.
7. 1,000 people or more.
8. No occupants.
0. Number of Occupants undetermined or not reported.

DBB. Age and Ability of Occupants

When the population of a building consists largely of senior citizens or persons who are physically inconvenienced or mentally impaired in a manner that will interfere with prompt exit, the difficulties of evacuation increase. The percentage of the population normally in the building which will have difficulty with evacuation can be estimated.

1. Less than 10 percent of the occupants over 62, or physically inconvenienced or mentally impaired.
2. 10 to 49 percent of the occupants over age 62 or physically inconvenienced or mentally impaired.
3. 50 to 100 percent of the occupants over 62, or physically inconvenienced or mentally impaired.
8. No occupants.
0. Age and Ability of Occupants undetermined or not reported.

DBC. Property Management

The information in this section can generally be obtained from the assessor's office, or its equivalent.

1. Private tax paying property.
2. Private non-tax paying property.
3. Local, county government property.
4. State, province government property, except military.
5. Central, federal government property, except military.
6. Foreign government property.
7. Military property.
9. Property Management not classified above.
0. Property Management undetermined or not reported.

DC. Exit Quality**DCA. Protection of Stairway**

1. Standard enclosure, labeled doors and frames, and doors that close and latch.
2. Standard enclosure, nonlabeled doors or frame, or doors that do not close and latch.
3. Nonstandard enclosure, labeled doors and frame, and doors that close and latch.
4. Nonstandard enclosure, nonlabeled doors or frame, or doors that do not close and latch.
5. No enclosure on one or more floors.
Included are open stairways.
8. No stairs.
9. Protection of Stairway not classified above.
0. Protection of Stairway undetermined or not reported.

DCB. Interior Finish in Means of Egress Routes

A means of egress route has three parts: the "exit access" which is often a corridor, the "exit" which is often an enclosed stairway, and the "exit discharge" which is often a protected route from the base of the stairway directly outside.

Interior finish is the material used to form the walls, the ceiling, and the floor of an area.

Included are thick surfacings such as panelling and carpet.

Excluded are thin surfacings (wallpaper and paint) applied to the interior finish.

1. Fiberboard wall, ceiling finish.

Included are combustible low density pressed wood fiber board and the like.

2. Wood wall, ceiling finish.

Included are plywood panels, barn board siding, and the like.

3. Carpet wall, ceiling finish.

4. Plastic foam wall, ceiling finish.

Included are exposed soft foams, hard foams, and self-skinning beam-like and simulated wood finish foams.

5. Carpeting on floor of stairwells, exit discharge route.

7. Two or more types of combustible wall, ceiling finish.

8. No combustible wall, ceiling finish.

9. Interior Finish in Means of Egress Routes not classified above.

0. Interior Finish in Means of Egress Routes undetermined or not reported.

DD. Compartment Quality**DDA. Protection of Vertical Shafts**

Included are mechanical shafts, elevator shafts, exhaust shafts, escalators, ramps, and the like.

1. Standard enclosure, standard installation of labeled dampers, all openings fire stopped.

2. Standard enclosure, standard installation of labeled dampers, some openings not fire stopped.

3. Standard enclosure, nonstandard damper installation, or compliance with standard not determined, all openings fire stopped.

4. Standard enclosure, nonstandard damper installation, or compliance with standard not determined, some openings not fire stopped.

5. Nonstandard enclosure, standard installation of labeled dampers, all openings fire stopped.

6. Nonstandard enclosure, nonstandard damper installation, or compliance with standard not determined, some or all openings fire stopped.
7. Nonenclosed openings between one or more floors.
8. No shafts, escalators, ramps.
9. Protection of Vertical Shafts not classified above.
0. Protection of Vertical Shafts undetermined or not reported.

DDB. Protection of Floor Openings

Included are the floor to curtain wall connection, pipe, poke-through, and other openings.

1. All openings fully fire stopped or protected.
2. Some openings only partially fire stopped or protected.
3. Some openings not fire stopped or protected.
4. All openings not fire stopped or protected.
8. No floor openings.
9. Protection of Floor Openings not classified above.
0. Protection of Floor Openings undetermined or not reported.

DDC. Protection of Openings in Horizontal Barriers

Horizontal openings in shaft walls or stairways are covered in Sections DCA and DDA.

"Fire division walls" are walls with a two-hour or longer fire rating.

"Fire rated walls" are walls with a thirty-minute or longer fire rating.

Where multiple problems exist, record the worst condition.

1. All openings in fire division walls fully protected.
2. Openings in fire division walls not fully protected.
3. No protection to openings in fire division walls.
4. All openings in fire rated walls fully protected.
5. Openings in fire rated walls not fully protected.
6. No protection to openings in fire rated walls.
8. No horizontal protection required.
9. Protection of Horizontal Openings not classified above.
0. Protection of Horizontal Openings undetermined or not reported.

DE. Exterior Defense Quality

DEA. Roof Covering

The roof covering classification is established by tests as outlined in NFPA No. 256, *Method of Fire Tests of Roof Coverings*.

1. Class A and Class B roof covering.
2. Class C roof covering of composition or prepared materials. Included are asphalt shingles.
3. Class C roof covering of treated and listed wood shingles and wood shakes.
4. Untreated wood shingles, shakes.
5. Unrated roof covering.
8. Structure without roof.
9. Roof Covering not classified above.
0. Roof Covering undetermined or not reported.

DEB. External Exposure

NFPA No. 80A, *Protection of Buildings from Exterior Fire*, should be used as a guide in determining exposure severity.

1. Light exposure, adequate protection provided.
2. Light exposure, inadequate protection provided.
3. Moderate exposure, adequate protection provided.
4. Moderate exposure, inadequate protection provided.
5. Severe exposure, adequate protection provided.
6. Severe exposure, inadequate protection provided.
8. No exposure.
9. External Exposure not classified above.
0. External Exposure undetermined or not reported.

DF. Ignition Control (Fire Defense Stage I)

DFA. Smoking Practice Quality

1. Smoking permitted throughout the premises without restriction.
2. Smoking restricted in a few special "No Smoking" areas — not adequately marked or evidence of violation noted.
3. Smoking restricted to a few special "smoking areas" — not adequately marked or evidence of violation noted.
4. Smoking restricted in a few special "No Smoking" areas — adequately marked and no evidence of violation noted.
5. Smoking restricted to a few special "smoking areas" — adequately marked and no evidence of violation noted.
6. No smoking permitted on premises — evidence of violation noted.

7. No smoking permitted on premises — no evidence of violation noted.
9. Smoking Practice Quality not classified above.
0. Smoking Practice Quality undetermined or not reported.

DFB. Electrical Service Quality

Included are observations that can be readily made.

1. Visible frayed or damaged wire insulation.
2. Temporary wiring or extension cords used in place of permanent wiring.
3. Metal junction boxes without connectors at cable entry points noted.
4. Heat at fuses, circuit breakers, or panel box noted.
5. Overfused circuits noted.
6. Fluorescent lights with "old" ballasts mounted on combustible fiberboard ceilings.
7. Several of the above.
8. No electrical service deficiency noted in building or structure.
9. Electrical Service Quality not classified above.
0. Electrical Service Quality undetermined or not reported.

DFC. Heating Service Quality

1. Odor of gas or fuel gases noted.
2. Evidence of charring or smoke stains around chimney connector or flues.
3. Holes in chimney connector or flue noted.
4. Leaking valve or pipe.
5. Chimney connector hanger(s) missing.
7. Several of the above.
8. No heating service deficiency noted in building or structure.
9. Heating Service Quality not classified above.
0. Heating Service Quality undetermined or not reported.

DG. Fuel Control (Fire Defense Stage II)

KINDLING FUEL — the fine fuels usually used to "kindle" fires. Included are wastepaper, corrugated cardboard, wood chips, flammable liquids, and the like. This all can be "kindling" to both friendly camp fires and hostile building fires alike.

Kindling fuels are the materials inside the walls of a space. Interior finish (the ceiling, wall, and floor materials) are categorized in Section DGA. Furnishings are categorized in Section DGB.

DGA. Interior Finish Not in Means of Egress Routes

1. Fiberboard wall, ceiling finish.
Included are combustible low density pressed wood fiber board and the like.
2. Wood wall, ceiling finish.
Included are plywood panels, barn board siding, and the like.
3. Carpet wall, ceiling finish.
4. Plastic foam wall, ceiling finish.
Included are exposed soft foams, hard foams, self-skinning beam-like and simulated wood finish foams.
7. Two or more types of combustible wall, ceiling finish.
8. No combustible wall, ceiling finish.
9. Interior Finish Not in Means of Egress Routes not classified above.
0. Interior Finish Not in Means of Egress Routes undetermined or not reported.

DGB. Plastic Furnishings

1. All plastic furnishings meet the accepted standard.
2. Plastic furnishings present do not meet the accepted standard.
3. Plastic furnishings present but compliance with the accepted standard not determined.
8. No plastic furnishings present.
9. Plastic Furnishings not classified above.
0. Plastic Furnishings undetermined or not reported.

NOTE: At the time of development of this section, there is not an accepted standard for characteristics of plastic furnishings.

DGC. Solid Kindling Fuels in Normally Occupied Areas

Excluded are storage and service spaces (DGD).

Select the category that best expresses your observation.

1. Cluttered operations with "kindling fuels" in *all* areas.
2. Cluttered operations with "kindling fuels" in *most* areas.
3. Cluttered operations with "kindling fuels" in *some* areas.
4. Overcrowded operations with "kindling fuels."
5. Occasional pockets of "kindling fuel."
7. Neat and uncluttered operations but "kindling fuel" present or used in the process.
Included are neat and orderly warehouses using cardboard cartons, neat libraries, and the like.
8. No "kindling fuel" present in normally occupied areas.
9. Solid Kindling Fuels in Normally Occupied Areas not classified above.
0. Solid Kindling Fuels in Normally Occupied Areas undetermined or not reported.

DGD. Solid Kindling Fuels in Storage and Service Spaces

Select the category that best expresses your opinion.

1. Cluttered operations with "kindling fuels" in *all* areas.
2. Cluttered operations with "kindling fuels" in *most* areas.
3. Cluttered operations with "kindling fuels" in *some* areas.
4. Overcrowded operations with "kindling fuels."
5. Occasional pockets of "kindling fuel."
7. Neat and uncluttered operations but "kindling fuel" present or used in the process.

Included are neat and orderly warehouses using cardboard cartons, neat libraries, and the like.

8. No "kindling fuel" present in storage and service areas.
9. Solid Kindling Fuels in Storage and Service Spaces not classified above.
0. Solid Kindling Fuels in Storage and Service Spaces undetermined or not reported.

DGE. Flammable Liquid Use

1. Flammable liquids used throughout — none in safety cans.
2. Flammable liquids used throughout — some in safety cans.
3. Flammable liquids used throughout — all in safety cans.
4. Flammable liquids used in some areas only — none in safety cans.
5. Flammable liquids used in some areas only — some in safety cans.
6. Flammable liquids used in some areas only — all in safety cans.
8. No flammable liquids present.
9. Flammable Liquid Use not classified above.
0. Flammable Liquid Use undetermined or not reported.

DH. Alarm Plus Occupant Action
(Fire Defense Stage III)

DHA. Automatic Detection

"Complete coverage" means that the location of detectors conforms to all applicable requirements of NFPA No. 72E. "Standard installation" means that a system conforms to all applicable requirements of NFPA Nos. 71, 72A, 72B, 72C, 72D, or 74.

1. Complete coverage, standard installation.
2. Complete coverage, nonstandard installation or compliance with standard for installation not determined.

3. Partial coverage, in above grade and below grade areas, standard installation.
4. Partial coverage, in above grade and below grade areas, non-standard installation or compliance with standard for installation not determined.
5. Partial coverage, in below grade areas only, standard installation.
6. Partial coverage, in below grade areas only, nonstandard installation or compliance with standard for installation not determined.
7. Partial coverage, in above grade areas only.
Included are standard and nonstandard installations.
8. No automatic detection.
9. Automatic Detection not classified above.
0. Automatic Detection undetermined or not reported.

DHB. Portable Fire Extinguishers

“Standard installation” means that an installation conforms to all applicable requirements of NFPA No. 10.

1. Complete coverage, standard installation.
2. Complete coverage, nonstandard installation or compliance with standard for installation not determined.
3. Partial coverage, standard installation.
4. Partial coverage, nonstandard installation or compliance with standard for installation not determined.
8. No portable fire extinguishers.
9. Portable Fire Extinguishers not classified above.
0. Portable Fire Extinguishers undetermined or not reported.

DHC. Occupant Hose

“Standard installation” means that an installation conforms to all applicable requirements of NFPA No. 14.

1. Complete coverage, standard installation.
2. Complete coverage, nonstandard installation or compliance with standard for installation not determined.
3. Partial coverage, standard installation.
4. Partial coverage, nonstandard installation or compliance with standard for installation not determined.
8. No occupant hose.
9. Occupant Hose not classified above.
0. Occupant Hose undetermined or not reported.

DI. Automatic Extinguishment

(Fire Defense Stage IV)

DIA. Sprinkler Protection

“Standard installation” means that an installation conforms to all applicable requirements of NFPA No. 13.

1. Complete coverage, standard installation.
2. Complete coverage, nonstandard installation or compliance with standard for installation not determined.
3. Partial coverage, in above grade and below grade areas, standard installation.
4. Partial coverage, in above grade and below grade areas, nonstandard installation or compliance with standard for installation not determined.
5. Partial coverage, in below grade areas only, standard installation.
6. Partial coverage, in below grade areas only, nonstandard installation or compliance with standard for installation not determined.
7. Partial coverage, in above grade areas only.
Included are standard and nonstandard installations.
8. No sprinkler protection.
9. Sprinkler Protection not classified above.
0. Sprinkler Protection undetermined or not reported.

DIB. Type of Special Hazard System

1. Dry chemical system.
Included are systems which use sodium bicarbonate, potassium bicarbonate, urea based potassium bicarbonate, potassium chloride, or monoammonium phosphate as an agent. See *Standard for Dry Chemical Extinguishing Systems*, NFPA No. 17, for guidance on system design.
2. Foam system.
Included are systems using protein, fluoroprotein, halo-fluoroprotein, and low temperature protein foam; high expansion foam, aqueous film forming foam (AFFF), and wetting agent foam. See *Standard for Foam Extinguishing Systems*, NFPA No. 11; *Standard for High Expansion Foam Systems*, NFPA No. 11A; and *Standard on Synthetic Foam and Combined Agent Systems*, NFPA No. 11B, for guidance on system design. Excluded are chemical foam systems (9).

3. Water spray system.
See *Standard for Water Spray Fixed Systems for Fire Protection*, NFPA No. 15, for guidance on system design.
4. Halogenated fire extinguishing agent system.
Included are systems using Halon 1211, Halon 1301, or other Halons as agents. See *Standard on Halogenated Extinguishing Agent Systems — Halon 1301*, NFPA No. 12A; and *Standard on Halogenated Fire Extinguishing Agent Systems — Halon 1211*, NFPA No. 12B, for guidance on system design.
5. Carbon dioxide system.
See *Standard on Carbon Dioxide Extinguishing Systems*, NFPA No. 12, for guidance on system design.
6. Explosion suppression system.
See *Standard on Explosion Prevention Systems*, NFPA No. 69, for guidance on system design.
7. Multiple special hazard systems — enter type of each system on report.
8. No special hazard system.
9. Type of Special Hazard System not classified above.
Included are steam smothering systems, chemical foam systems, and systems dispensing dry powder for metal fires.
0. Type of Special Hazard System undetermined or not reported.

DIC. Coverage of Special Hazard System

The following categories should be used to evaluate the extent of coverage provided by the special hazard system. The applicable standards and codes should be used to evaluate the installation.

“Total flooding” means completely filling the room or space protected. “Local application” means completely protecting the hazard within a room or space. A restaurant hood and duct system is a “local application.”

1. Standard installation, total flooding.
2. Standard installation, local application.
3. Nonstandard installation or compliance with standard for installation not determined, total flooding.
4. Nonstandard installation or compliance with standard for installation not determined, local application.
7. Multiple special hazard systems — enter extent of coverage for each system on report.
8. No special hazard system present.
9. Coverage of Special Hazard System not classified above.
0. Coverage of Special Hazard System undetermined or not reported.

DJ. Fire Department Action (Fire Defense Stage V)

DJA. Automatic Alarm Transmission Capability

This section classifies the automatic alarm system transmission features provided to get the alarm from the structure to the responding fire department.

1. Remote station system to fire department managed location — see NFPA No. 72C.
2. Remote station system to nonfire department managed location — see NFPA No. 72C.
3. Proprietary system — see NFPA No. 72D.
4. Central station system — see NFPA No. 71.
5. Auxiliary system with automatic master-box — see NFPA No. 72B.
8. No automatic alarm transmission capability provided.
9. Automatic Alarm Transmission Capability not classified above.
0. Automatic Alarm Transmission Capability undetermined or not reported.

DJB. Water Supply Type

Recognized water systems are engineered water main and hydrant systems under pressure.

1. Recognized water system, hydrants within 500 feet.
2. Recognized water system, hydrants 500 to 999 feet away.
3. Recognized water system, hydrants 1,000 feet or more away.
4. Outside of recognized water system, other water source available within 500 feet.
5. Outside of recognized water system, other water source available between 500 and 999 feet away.
6. Outside of recognized water system, other water source 1,000 feet or more away.
8. No water available.
9. Water Supply Type not classified above.
0. Water Supply Type undetermined or not reported.

DJC. Water Supply Flow

This flow should reflect the sustained water supply capacity available for a period of 1 hour to apparatus responding on the first alarm.

1. Less than 250 gpm.
2. 250 to 499 gpm.
3. 500 to 749 gpm.
4. 750 to 999 gpm.

5. 1,000 to 1,499 gpm.
6. 1,500 to 1,999 gpm.
7. 2,000 gpm and over.
8. No water available.
0. Water Supply Flow undetermined or not reported.

DJD. Standpipe System

“Standard installation” means that an installation conforms to all applicable requirements of NFPA No. 14.

1. Complete coverage, standard installation.
2. Complete coverage, nonstandard installation or compliance with standard for installation not determined.
3. Partial coverage, standard installation.
4. Partial coverage, nonstandard installation or compliance with standard for installation not determined.
8. No standpipe system.
9. Standpipe System not classified above.
0. Standpipe System undetermined or not reported.

DJE. Obstacles to Rescue and Fire Control

The items below include features not covered elsewhere in this standard.

1. Access to structure impeded.
Included are weak bridges, fences, gates, terrain, parked cars, private road layout, and the like.
2. Windowless wall.
Included are glassless walls, walls with no breakable glass, fixed sash, glass block walls, and the like.
3. Type of window impedes egress.
Included are small steel sash, narrow casement windows, bars on windows, fixed sunscreens, and the like.
4. Exits not accessible or substandard.
Included are narrow, blocked, or locked exits, steep or open stairways, weak hardware, and the like.
5. Internal arrangement.
Included are high piled stock, partitions creating confusion, obstructions, and the like.
6. Difficult to ventilate.
7. Multiple obstacles.
Enter details of each obstacle on report.
8. No unusual obstacles to rescue or fire control.
9. Obstacles to Rescue and Fire Control not classified above.
0. Obstacles to Rescue and Fire Control undetermined or not reported.

Chapter E. Area of Origin

Purpose: This chapter provides a classification system for the identification of the use of the room or space where the fire originates. The area of origin is coded according to the use of the room or space at the time of the ignition.

Discussion: Whereas the Property Complex (Chapter A) takes in the entire multi-use building or group of buildings and the Fixed Property Use (Chapter B) takes in that portion of a complex having one fixed occupancy, the area of origin takes in that portion of the occupancy which is devoted to a specific use or process. For example, an office building may be a complex, a restaurant in that office building may be the fixed property use, and the kitchen in that restaurant, if an ignition occurs there, is the area of origin. The area of origin is either a room, a space or a portion of a room, a vehicle or a portion of a vehicle, or possibly some open area devoted to a specific use.

The use of an area and its level within the building should each be kept separate for reporting purposes. Thus, words like "attic" and "basement" should not be used to describe an area of origin. If these areas are used for storage, that should be reported; if they are used for some other use, it should be reported.

Coded Data: The logical coding structure and definitions for classifying area of origin are presented here. An alphabetical listing of terms for "Area of Origin" is presented in Chapter E' in Part IV of this standard.

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 (Continued)

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-waiter.
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, work-shops, 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.

Chapter F. Equipment Involved in Ignition

Purpose: This chapter provides a classification system for the equipment that provided the heat which started the fire.

Discussion: The heat of ignition often originates in equipment that fails or brings about the ignition while operating properly. The form of the heat energy actually bringing about the ignition is classified in Chapter G. If no equipment was involved in the generation of the heat, see division 9 below.

Noncoded Data: The following data should be collected each time a piece of equipment is involved in the ignition sequence if it can be obtained.

- a. Manufacturer's name.
- b. Model designation.
- c. Year of manufacture or serial number.
- d. Brand or trade name.
- e. Laboratory certification (UL, FM, AGA, etc.).
- f. If electrical, the current and voltage rating on the label.

Coded Data: The logical coding structure and definitions for classifying pieces of equipment involved in ignition are presented here.

An alphabetical listing of terms for "Equipment Involved in Ignition" is presented in Chapter F' in Part IV of this standard.

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.
10. 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 barbeque 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). Expanded terminology and definitions are available in Appendix A on page 901-202.

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.
58. Portable appliance designed not to produce heat (not classified above).
Included are electric razors and can openers.
59. Appliances, Equipment not classified above.
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 flow-coating 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, Exposure Fire

- 91. Separate, removed exposure.
Ignition of another fixed or mobile property separated from the fire by a distance of at least 50 feet.
- 92. Separate, detached exposure.
Ignition of another fixed or mobile property separated from the fire by a distance of more than one foot but less than 50 feet.
- 93. Separate, adjoining exposure.
Ignition of another fixed or mobile property separated from the fire by a distance of less than one foot, or by an unpierced wall.
- 94. Attached, protected exposure.
Ignition of a structure communicating with another, but separated by pierced fire walls or rated fire cutoffs and with all common fire wall openings protected by standard installation of fire doors, and cutoffs.
- 95. Attached, unprotected exposure.
Ignition of a structure, adjoining another structure, not

meeting the above definitions, and separated by pierced walls of substandard type or without standard protection of openings.

96. Vehicle.

Included are exhaust systems and other vehicle parts.

98. No equipment involved — see Chapter G for Form of Heat Ignition (e.g., cigarette, match).

99. Other Object, Exposure Fire not classified above.

90. Other Object, Exposure Fire; insufficient information available to classify further.

00. Equipment Involved in Ignition undetermined or not reported.

Chapter G. Form of Heat of Ignition

Purpose: This chapter provides a classification system for the form of the heat energy igniting the fire, e.g., flame, spark, hot surface.

Discussion: For some purposes, it may be enough to know that the source of the heat was from a water heater (subdivision 12 in Chapter F); but for proper understanding, the form that the heat of ignition took should be reported. It is desirable to state whether the water was heated by gas (subdivision 11 or 12), oil (subdivision 13 or 14), or electricity (major division 2).

Coded Data: The logical coding structure and definitions for classifying forms of heat of ignition are presented here. An alphabetical listing of terms for "Form of Heat of Ignition" is presented in Chapter G' in Part IV of this standard.

1. Heat from Fuel-Fired, Fuel-Powered Object

NOTE: Gas is a gas fuel; gasoline is a liquid fuel.

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.
10. 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.

Chapter H. Type of Material First Ignited

Purpose: This chapter provides a classification system for the type of material that was first ignited.

Discussion: A fire not only needs heat, but the heat must ignite a kindling fuel. Any material first ignited will be made of a certain substance (Chapter H), and that same material will have a certain form (Chapter I). In the example given in Chapter G of a fire starting from a water heater, assume that gasoline vapors entered the combustion chamber and were ignited by the gas pilot light. The ignition classification, then, using Chapters F, G, and H would be: water heater (F12), pilot light (G12), and gasoline (H23).

Coded Data: The logical coding structure and definitions for classifying types of materials first ignited are presented here. An alphabetical listing of terms for "Type of Material First Ignited" is presented in Chapter H' in Part IV of this standard.

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 73°F (22.8°C) and boiling point less than 100°F (37.8°C).
Included are ethyl ether, pentane, and ethylene oxide.
22. Class IB flammable liquid.
Flashpoint less than 73°F (22.8°C) and boiling point at or above 100°F (37.8°C).
Included are acetone, ethyl alcohol, JP-4 jet fuel, and methyl ethyl ketone.
Excluded are gasoline (23).
23. Gasoline.

24. Class IC flammable liquid.
Flashpoint at or above 73°F (22.8°C) and below 100°F (37.8°C).
Included are butyl alcohol, propyl alcohol, styrene, and turpentine.
25. Class II combustible liquid.
Flash point at or above 100°F (37.8°C) but less than 140°F (60°C).
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 (60°C) but less than 200°F (93.4°C).
Included are No. 6 fuel oil, cottonseed oil, and creosote oil.
27. Class IIIB combustible liquid.
Flashpoint at or above 200°F (93.4°C).
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 100°F and 200°F.

31. Fat, grease (food).
Included are butter, tallow, margarine, and lard.
32. Grease (nonfood).
Included are petroleum jellies.
33. Polish.
Included are paraffin and wax.
34. Adhesive, resin, tar.
Included are glue, gelatin, rosin, damas, elemi, kauri, asphalt, and pitch.
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 are polymethyl methacrylate (PMMA).
45. Polyester.
Included are fiberglass reinforced polyester.
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 (51).
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 all finished 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 are 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 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.
- 98. Type of material not applicable.
- 99. Type of Material not classified above.
- 00. Type of Material undetermined or not reported.

Chapter I. Form of Material First Ignited

Purpose: This chapter provides a classification system for the form of the material first ignited.

Discussion: The form is the shape and use of the material as it is used by human beings, apart from its composition. This is the form of the same material identified in Chapter H.

Examples: Wood shingles would be described by the use of sawn or split wood (subdivision 63 in Chapter H), but they would be subdivision 11 in this chapter if they were used for exterior roof covering, subdivision 12 if used for exterior siding, and subdivision 17 if used for structural shims.

Plastic electric wire insulation would be described by the type of plastic (division 4 in Chapter H) and electric wire insulation (subdivision 61 in Chapter I).

Coded Data: The logical coding structure and definitions for classifying the form of the material first ignited are presented here. An alphabetical listing of terms for "Form of Material First Ignited" is presented in Chapter I' in Part IV of this standard.

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.
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.

98. Form of Material not applicable.

99. Form of Material not classified above.

00. Form of Material undetermined or not reported.

Chapter J. Ignition Factor

Purpose: This chapter provides a classification system for the factor that allowed the heat of ignition and the material first ignited to combine.

Discussion: The heat of ignition is identified by the factors presented in Chapters F and G. The material first ignited is identified by the factors outlined in Chapters H and I. Neither a heat of ignition by itself nor a kindling material by itself is sufficient to initiate a fire. The ignition factors listed below identify why the heat and material were able to combine to initiate a fire.

Coded Data: The logical coding structure and definitions for classifying ignition factors are presented here. An alphabetical listing of terms for "Ignition Factor" is presented in Chapter J' in Part IV of this standard.

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. Thawing.
33. Falling asleep.
34. Inadequate control of open fire.
Included are smoking out animals.
35. Cutting, welding too close to.
36. Children with, child 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.
- 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.
- 83. 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.

Chapter K. The Incident Report

Purpose: This chapter provides categories to be used in the collection of data to identify the important features of the incident. Included are time sequences, method of alarm, type of situation found, type of action taken, factors affecting fire development, and factors influencing fire service operations.

Definitions:

ALARM. Any notification made to the fire department that a situation exists or may exist that requires a response.

INCIDENT. The movement of a piece of fire service apparatus or equipment in response to an alarm.

Noncoded Data: With any incident report, there is certain administrative information which is desirable. Chief among this is the location of the property or incident. It is desirable to record information such as:

- a. Street name and number.
- b. Local name and designation of property.
- c. Community or subdivision.
- d. City, county, state, or province including post office code.
- e. Census tract.
- f. Property representative to contact.
- g. Address and telephone number of property representative.

Information on the use of resources (men, apparatus, and equipment) can also be recorded without coding, as it is normally recorded as direct numbers.

Coded Data:

KA. Incident Identification

KAA. Incident Number

The incident number may be denoted in many ways, but an effective method is to number the incidents consecutively on receipt allowing a sufficient number of digits for the number of alarms expected for one year. For example: The 156th alarm would be 0156 or 00156.

KAB. Incident Vital Statistics

The time, day, and date are recorded as follows:

Time by 24-hour clock

1:00 AM = 0100

1:00 PM = 1300

12:00 midnight = 2400

12:01 AM = 0001

NOTE: There is no time = 0000

Day of week — one digit

Sunday = 1

Thursday = 5

Monday = 2

Friday = 6

Tuesday = 3

Saturday = 7

Wednesday = 4

Month of year — two digits

January = 01

December = 12

Day of the month — two digits

01, 02, . . . 30, 31

Year of century — two digits

Example: 1976 = 76

KB. Alarm Information**KBA. Method of Alarm from the Public**

The method by which the first fire department person is notified of the incident.

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.
6. No alarm received — no response.
Included are fires reported to or observed by fire department personnel after they 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 system.
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.

KC. Situation Found

KCA. 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 are steam mistaken for smoke when the steam is being released from a normal vent or relief value (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.
- 00. Type of Situation Found undetermined or not reported.

KCB. Condition of Fire on Arrival of First Unit

1. Emergency cleared prior to arrival.
2. Fire — no evidence visible from street.
3. Fire — smoke showing only.
4. Flames showing on one story.
Included are nonstructure fires where flames are showing from a relatively small area.
5. Flames showing on more than one story.
Included are nonstructure fires where fire is showing from a relatively large area.
6. Fully involved.
7. Exposure involved.
8. Not a fire.
0. Condition on Arrival undetermined or not reported.

KD. Action Taken**KDA. 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.

KDB. Method of Extinguishment

The mechanism by which the fire was finally extinguished.

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.

KE. Origin Information**KEA. Level of 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.

KEB. Story of Origin

1. First story (story at grade).
2. Second story.
3. Third or fourth story.
4. Fifth or sixth story.
5. Seventh through twelfth story.
6. Thirteenth through twenty-third story.
7. Twenty-fourth story or above.
8. Below grade.
9. Not a structure.
0. Story of Origin undetermined or not reported.

KEC. Occupant of Room or Space of Origin at Time of Ignition

NOTE: An occupant is any person within the room or space where the fire originated.

1. Owner.
Included are family members.
2. Employee and/or customer.
3. Lessee, renter, guest, patient.
Included are family members.
4. Maintenance personnel.
5. Contractor on premises.
6. Trespasser.
Included are fires in stolen vehicles.
7. Room or space of origin temporarily not occupied.
Included are spaces where there have been no people present for up to one week.
8. Room or space of origin not occupied.
Included are spaces where there have been no people present for one week or more.
9. Occupant of Room or Space of Origin not classified above.
0. Occupant of Room or Space of Origin undetermined or not reported.

KF. Flame and Smoke Information**KFA. Type of Material Generating Most Significant Flame**

The type of material first ignited often is not the most significant material involved in a fire. This category is used to identify the most significant material from a flame or fire development standpoint. Use the classifications outlined in Chapter H on Page 901-112 to identify this type of material. An alphabetical listing of terms used to identify the type of material can be found in Chapter H' in Part IV of this standard.

KFB. Form of Material Generating Most Significant Flame

The form of material first ignited often is not the most significant material involved in a fire. This category is used to identify the most significant material from a flame or fire development standpoint. Use the classifications outlined in Chapter I on Page 901-117 to identify this form of material. An alphabetical listing of terms used to identify the form of material can be found in Chapter I' in Part IV of this standard.

KFC. Most Significant Factor Contributing to Flame Travel

Use to classify a rapid, unusual, or intense flame spread (char) beyond the room or area of origin. The primary factor or avenue which allowed the fire to spread from the room or area of origin should be reported.

1. Interior Finish

11. Combustible ceiling finish, covering.
12. Combustible wall finish, covering.
13. Combustible floor finish, covering.
14. Combustible ceiling and wall finish, covering.
15. Combustible ceiling and floor finish, covering.
16. Combustible wall and floor finish, covering.
17. Combustible ceiling, wall, floor finish.
19. Interior Finish allowing fire spread not classified above.

2. Structural Factor Allowing Vertical Travel

21. Nonenclosed stairwell, elevator shaft.
22. Inadequate firestopping.
Included are inside of walls, around pipes, poke-throughs, and the like.
23. Air handling ducts.
24. Utility shaft, pipe shaft.
25. Failure of a rated assembly.
26. Exterior spread.
27. Floor, ceiling.
29. Structural Factor Allowing Vertical Travel not classified above.

3. Structural Factor Allowing Horizontal Travel

31. Air handling duct.
32. Attic space, ceiling, concealed space.
33. Door burned through in rated assembly.
34. Door open in a rated assembly.
35. Corridor, excessive open area.
36. Utility opening, pipe opening.
37. Window.
38. Wall.
39. Structural Factor Allowing Horizontal Travel not classified above.

4. Physical Transfer of Materials Ignited.

41. Human being, animal.
42. Conveyor, special materials handling equipment.
43. Gravity (fell on).
44. Wind.
45. Pipeline, material transfer system.
49. Physical Transfer of Material Ignited not classified above.

5. Building Contents

51. Decoration.
52. Furniture, fixture.
53. Flammable liquid not properly handled or contained.
54. Flammable gas not properly handled or contained.
55. Flammable dust, solid chemical.
56. Explosive, fireworks.
57. Stored material.
59. Building Contents not classified above.

9. Other Flame Travel Factor

98. No important factor contributing to flame travel.
99. Factor Contributing to Flame Travel not classified above.
00. Factor Contributing to Flame Travel undetermined or not reported.

KFD. Type of Material Generating Most Significant Smoke

The type of material first ignited often is not the most significant material involved in a fire. This category is used to identify the most significant material from a smoke development standpoint. Use the classifications outlined in Chapter H on Page 901-112 to identify this type of material. An alphabetical listing of terms used to identify the type of material can be found in Chapter H' in Part IV of this standard.

KFE. Form of Material Generating Most Significant Smoke

The form of material first ignited often is not the most significant material involved in a fire. This category is used to identify the most significant material from a smoke development standpoint. Use the classifications outlined in Chapter I on Page 901-117 to identify this form of material. An alphabetical listing of terms used to identify the form of material can be found in Chapter I' in Part IV of this standard.

KFF. Most Significant Avenue of Smoke Travel

Used to classify avenue of smoke travel beyond the room or area of origin.

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.

KG. Time and Delay Information

KGA. Time from Ignition to Detection

Ignition occurs the moment heat or overheat reaches the point of self-perpetuated combustion in the combustible ignited whether or not there is open flame.

Detection occurs the moment a person senses the danger or an automatic detector closes its contacts.

1. Less than 1 minute.
2. 1 to 2 minutes.
3. 3 to 5 minutes.
4. 6 to 9 minutes.
5. 10 to 19 minutes.
6. 20 to 39 minutes.
7. 40 to 60 minutes.
8. Over 1 hour.
9. Detected after self-termination or before ignition occurred.
Included are overheat conditions.
0. Time from Ignition to Detection undetermined or not reported.

KGB. Method of Detection

The purpose of this section is to identify the first person or system to detect the fire regardless of what action that person or system took toward reporting the fire.

1. Building occupant.
2. Watchman, guard for the property on a full time basis.
3. Roving police, guard patrol.
4. Passerby.
5. Automatic suppression system with alarm.
6. Automatic fire, heat, smoke detection system.
7. Detected after self-termination.
9. Method of Detection not classified above.
0. Method of Detection undetermined or not reported.

KGC. Time from Detection to Alarm

Alarm occurs the moment the first signal light or sound arrives at the fire alarm center of the officially responding organization. This is generally a public fire department facility, but could be an organized and manned private fire department. It is not a building guard, a building manager, telephone operator, or a maintenance shop.

1. Less than 1 minute.
2. 1 to 2 minutes.
3. 3 to 5 minutes.
4. 6 to 9 minutes.
5. 10 to 19 minutes.
6. 20 to 39 minutes.
7. 40 to 60 minutes.
8. Over 1 hour.
9. Fire detected but no alarm given.
Included are fires which have burned themselves out when detected and fires where the person discovering the fire extinguishes it without notifying the authorities.
0. Time from Detection to Alarm undetermined or not reported.

KGD. Delay in Alarm

Cause for unusual delay in transmission of alarm to the fire department once the person detected the fire.

1. Physically, mentally disabled (not fire related).
2. Assumed call was made, used undue time in verifying that there was a fire.
3. Too busy with emergency.
4. Thought could control fire by self.
5. Couldn't get through to fire department on phone.
6. Couldn't get correct message conveyed.
7. Alarm box malfunction.
8. No unusual delay.
9. Delay in Alarm not classified above.
0. Delay in Alarm undetermined or not reported.

KGE. Time from Alarm to Extinguishing Agent Application

The time of extinguishing agent application is when the agent first hits the flame. This time segment is generally controlled by Fire Service Management.

1. Agent applied before alarm to fire department.
2. Less than 2 minutes.
3. 2 to 5 minutes.
4. 6 to 9 minutes.
5. 10 to 19 minutes.

6. 20 to 39 minutes.
7. 40 to 60 minutes.
8. Over 1 hour.
9. No agent application necessary.
0. Time from Alarm to Extinguishing Agent Application undetermined or not reported.

KGF. Delay in Arrival

Cause for unusual delay in arrival of the first fire service apparatus at the scene.

1. Apparatus at false alarm.
2. Apparatus at other alarm.
3. Apparatus failure.
4. Signal not properly transmitted or received.
5. Traffic delay en route.
Included are railroad crossing delays, traffic congestion, vehicles involved in accident, and the like.
6. Couldn't find fire once at site.
Included are wrong address given and no one at alarm box to direct apparatus.
8. No unusual delay.
9. Delay in Arrival not classified above.
0. Delay in Arrival undetermined or not reported.

KGG. Delay in Application of Extinguishing Agent

Cause for unusual delay after the arrival of fire fighting apparatus before extinguishing agents are applied to the fire.

1. Hydrant inaccessible.
Included are parked cars, poor location, and the like.
2. Hydrant malfunctions.
3. Other external water supply malfunctions.
4. Building water supply malfunctions.
Included are hose failures, valve failures, standpipe problems, pump problems, siamese connection problems, and the like.
5. Building equipment malfunctions.
Included are elevators, HVAC systems, alarm systems, and the like.
6. Permanent obstructions.
Included are gates, locks, walls, small sash, and the like.
7. Temporary obstructions.
Included are high piled stock, confusing partition layouts, and the like.
8. No unusual delay in application of agent.
9. Delay in Application of Agent not classified above.
0. Delay in Application of Agent undetermined or not reported.

KGH. Time from Extinguishing Agent Application to Fire Blackout

Blackout is when all evidence of open flame or glow of burned material has been removed.

1. Less than 2 minutes.
2. 2 to 5 minutes.
3. 6 to 9 minutes.
4. 10 to 19 minutes.
5. 20 to 39 minutes.
6. 40 to 59 minutes.
7. 1 to 2 hours.
8. Over 2 hours.
9. No agent application necessary.
0. Time from Extinguishing Agent Application to Blackout undetermined or not reported.

KH. Fire Defense Effectiveness**KHA. Performance of Fire Detection Equipment**

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.

KHB. Performance of Automatic Extinguishing Equipment

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 Extinguishing Equipment not classified above.
0. Performance of Automatic Extinguishing Equipment undetermined or not reported.

KHC. Performance of Fire Spread Limitation Devices

Included are enclosing walls, doors, dampers, and the like.

1. Operated satisfactorily.
2. Operated unsatisfactorily.
3. Fire too small to affect performance.
8. No fire spread limitation devices.
9. Performance of Fire Spread Limitation Devices not classified above.
0. Performance of Fire Spread Limitation Devices undetermined or not reported.

KI. Weather Information**KIA. Type of Weather**

The type of weather should be recorded as that at the time the fire starts, regardless of what changes occur during suppression activities.

1. Clear.
2. Cloudy.
3. Rain.
4. Snow.
5. Hail.
9. Type of Weather not classified above.
0. Type of Weather undetermined or not reported.

KIB. Air Temperature

The air temperature should be recorded as that at the time the fire starts, regardless of what changes occur during suppression activities.

Fahrenheit	Celsius
1. Over 100°	Over 38°
2. 90° to 100°	32° to 38°
3. 80° to 89°	26° to 31°
4. 50° to 79°	10° to 25°
5. 32° to 49°	0° to 9°
6. 10° to 31°	-12° to -1°
7. -10° to 9°	-23° to -13°
8. Less than -10°	Less than -23°
0. Air Temperature undetermined or not reported.	

KIC. Relative Humidity

The relative humidity should be recorded as that at the time the fire starts, regardless of what changes occur during suppression activities.

1. 80 percent or over.
2. 50 to 79 percent.
3. 40 to 49 percent.
4. 30 to 39 percent.
5. 20 to 29 percent.
6. 10 to 19 percent.
7. 5 to 9 percent.
8. Less than 5 percent.
0. Relative Humidity undetermined or not reported.

KID. Wind Direction

Wind direction should be recorded to the closest 45 degree compass point and at the time the fire starts, regardless of what changes occur during suppression activities. Wind direction is the direction the wind is coming from.

1. North.
2. Northeast.
3. East.
4. Southeast.
5. South.
6. Southwest.
7. West.
8. Northwest.
9. Shifting winds.
0. Wind Direction undetermined or not reported.

KIE. Wind Speed

1. Less than 1 mph.
Smoke rises vertically.
2. 1 to 4 mph.
Direction of wind shown by smoke drift but not by weather vanes.
3. 5 to 8 mph.
Wind felt on face; rustles leaves; ordinary vanes moved by wind.
4. 9 to 14 mph.
Leaves and small twigs in constant motion; wind extends light flag.
5. 15 to 20 mph.
Wind raises dust and loose papers; small branches are moved.
6. 21 to 25 mph.
Small trees and leaves begin to sway; crested wavelets form on inland waters.

7. 26 to 31 mph.
Large branches in motion; whistling heard on wires; umbrellas used with difficulty.
8. 32 to 46 mph.
Whole trees in motion; small twigs break off trees; walking against wind impeded.
9. Over 46 mph.
Slight to heavy structural damage; branches break; trees uprooted (60 mph and up).
0. Wind Speed undetermined or not reported.

Chapter L. Measurement of Fire Losses and Manpower Use

Purpose: This chapter presents a means of summarizing the losses which occur as a result of a fire. Losses are measured as the physical damage from the fire to the property, injuries to persons, loss of use of facilities, and financial loss. Also measured is the man-effort required to handle the incident.

Definitions:

FLAME. Products of combustion that are illuminated by the heat of combustion and accompany the burning of most materials in normal atmospheres.

OVERHEAT. Destruction of material by heat without self-sustained combustion. Removal of the heat source will stop the destruction. Overheat is the stage before ignition.

SCORCH. Discoloring (browning or blackening) of a material, a characteristic of the overheat condition. Removal of the heat source will stop the destruction.

SMOLDERING. Self-sustaining combustion of a material without any flame evident.

Coded Data:

LA. Termination Stage of Incident

See Definitions above for terminology.

1. Heat terminated in the overheat stage, before smolder or flame.
2. Fire terminated in the smolder stage, before any flame.
3. Fire terminated in or after the flame stage.
8. Not a fire.
9. Termination Stage of Incident not classified above.
0. Termination Stage of Incident undetermined or not reported.

LB. Extent of Flame Damage

Describe burned or charred area of a structure. Area of actual flame impingement is sought. "Browned" paper and similar areas scorched by heat but not attacked by flame should be covered in "Extent of Smoke Damage" (LCA).

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 the fire-rated compartment of origin.
5. Confined to floor of origin.

6. Confined to structure of origin.
7. Extended beyond structure of origin.
8. Not a structure fire.
0. Extent of Flame Damage undetermined or not reported.

LC. Extent of Nonflame Damage

LCA. 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 of origin.
7. Extended beyond structure of origin.
8. Not a structure fire.
9. No damage of this type.
0. Extent of Smoke Damage undetermined or not reported.

LCB. Extent of Water Damage

Describe extent of water and other fire extinguishing agent damage to 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 the fire-rated compartment of origin.
5. Confined to floor of origin.
6. Confined to structure of origin.
7. Extended beyond structure of origin.
8. Not a structure fire.
9. No damage of this type.
0. Extent of Water Damage undetermined or not reported.

LCC. Extent of Fire Control Damage

Describe extent of physical damage of fire control activities to a structure other than extinguishing agent damage which is classified in LCB.

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 the fire-rated compartment of origin.
5. Confined to floor of origin.
6. Confined to structure of origin.
7. Extended beyond structure of origin.
8. Not a structure fire.
9. No damage of this type.
0. Extent of Fire Control Damage undetermined or not reported.

LD. Casualty Summary (Deaths)

Each death should be recorded using Chapter M as a basis for the report.

1. 1 death.
2. 2 deaths.
3. 3 to 5 deaths.
4. 6 to 10 deaths.
5. 11 to 20 deaths.
6. 21 to 50 deaths.
7. Over 50 deaths.
8. No deaths.
0. Casualty Summary (Deaths) undetermined or not reported.

LE. Casualty Summary (Injuries)

Each injury should be recorded using Chapter M as a basis for the report.

1. 1 injury.
2. 2 injuries.
3. 3 to 5 injuries.
4. 6 to 10 injuries.
5. 11 to 20 injuries.
6. 21 to 50 injuries.
7. Over 50 injuries.
8. No injuries.
0. Casualty Summary (Injuries) undetermined or not reported.

LF. Number of Persons Assisted

The number of persons assisted in leaving the building by the action of the fire department.

1. 1 person.
2. 2 persons.
3. 3 to 5 persons.
4. 6 to 10 persons.
5. 11 to 20 persons.
6. 21 to 50 persons.
7. 51 to 100 persons.
8. Over 100 persons.
9. No persons assisted.
0. Number of Persons Assisted undetermined or not reported.

LG. Number of Persons Made Homeless

The number of persons who could not reside in their building the night after the fire.

1. 1 person.
2. 2 persons.
3. 3 to 5 persons.
4. 6 to 10 persons.
5. 11 to 20 persons.
6. 21 to 50 persons.
7. Over 50 persons.
8. No persons.
9. Not a factor, residential property not involved.
0. Number of Persons Made Homeless undetermined or not reported.

LH. Number of Businesses Made Unusable

Those businesses which could not operate over 60 percent of their facility the first working day following the fire.

1. 1 business.
2. 2 businesses.
3. 3 to 5 businesses.
4. 6 to 10 businesses.
5. 11 to 20 businesses.
6. 21 to 50 businesses.
7. Over 50 businesses.
8. No businesses made unusable.
9. No businesses involved.
0. Number of Businesses Made Unusable undetermined or not reported.

LI. Lost Time of Business

If the business where the fire originated cannot resume 60 percent or more of its operation the first working day following the fire, then it has "lost time." The lost time is measured in whole days, and may be estimated.

1. 1 day.
2. 2 days.
3. 3 days.
4. 4 to 7 days.
5. 8 to 60 days.
6. Over 60 days.
7. Not expected to resume at this location.
8. No lost time of business.
9. No businesses involved.
0. Lost Time of Business undetermined or not reported.

LJ. Property Damage Classification

Estimate on a replacement in like kind and quality basis. Estimate total physical direct loss — loss to contents, structure, machinery and equipment, and the like.

1. 1 to 99 dollars.
2. 100 to 999 dollars.
3. 1,000 to 9,999 dollars.
4. 10,000 to 24,999 dollars.
5. 25,000 to 49,999 dollars.
6. 50,000 to 249,999 dollars.
7. 250,000 to 999,999 dollars.
8. 1,000,000 dollars or more.
9. No dollar loss.
0. Property Damage Classification undetermined or not reported.

LK. Manpower Use

Multiply number of men on each unit used at the incident by number of hours the unit was out of service for this incident, and accumulate for each unit at the incident.

1. Less than 0.5 manhours.
2. 0.5 to 0.9 manhours.
3. 1.0 to 2.9 manhours.
4. 3.0 to 9.9 manhours.
5. 10.0 to 23.9 manhours.
6. 24.0 to 47.9 manhours.
7. 48.0 to 71.9 manhours.
8. 72.0 and over manhours.
0. Manpower Use undetermined or not reported.

Chapter M. Incident Casualties

Purpose: This chapter provides categories to be used in the collection of data to classify incident casualties. Information can be accumulated regarding fire fighters or civilians injured or killed during incidents.

These categories are useful for collecting data on all casualty contacts by the Fire Service. Additional information may be desired for specialized emergency medical purposes.

Definitions:

INCIDENT CASUALTY. A person injured or killed before or during an incident. Incident casualties are divided into three major categories.

- a. Fire casualties
- b. Action casualties
- c. EMS (Emergency Medical Service) casualties

FIRE CASUALTY. A person injured or killed as a direct result of a fire *before or after* the alarm for the incident.

For example: burns, smoke inhalation, trapped by fire, or injured by ceiling collapse.

ACTION CASUALTY. A person injured or killed *after* the alarm for the incident is received, but not a fire casualty.

For example: sprained back raising ladder, cut hand, overexertion, all casualties while responding to or returning from an incident, casualties due to the violence of others, and the like.

EMS (Emergency Medical Service) CASUALTY. A person injured or killed *before* the alarm for the incident is received but for whom the alarm is sounded.

For example: drowning, vehicle crash where injury is due to crash rather than ensuing fire, or heart attack.

INJURY. Physical damage to a person suffered as the result of an incident that requires (or should require) treatment by a practitioner of medicine within one year of the incident (regardless of whether treatment was actually received), or results in at least one day of restricted activity immediately following the incident.

All injuries should be routinely followed up with the appropriate medical authorities until the casualty is released or the outcome has been determined.

DEATH. An injury which is fatal or becomes fatal within one year of the incident.

Noncoded Data: The following personal data should be collected for each casualty.

- Name of person injured or killed.
 - Date of birth.
 - Home address and telephone number.
 - Time when casualty occurred.
- Use 24-hour clock — see Section KB (Page 901-125).

Coded Data:

MA. Age Classification

The actual age or the following categories can be used.

1. Less than 1 year old.
2. 1 to 4 years old.
3. 5 to 9 years old.
4. 10 to 15 years old.
5. 16 to 24 years old.
6. 25 to 61 years old.
7. 62 to 75 years old.
8. Over 75 years old.
0. Age Classification undetermined or not reported.

MB. Sex

1. Male.
2. Female.
0. Sex undetermined or not reported.

MC. Type of Casualty

1. Fire casualty.
2. Action casualty.
3. EMS (Emergency Medical Service) casualty.
0. Type of Casualty undetermined or not reported.

MD. Severity

1. Injury.
2. Death.
0. Severity undetermined or not reported.

ME. Casualty Affiliation

1. Fire service personnel.
2. Other emergency personnel.
Included are persons working at the scene of the incident whether volunteers pressed into service by the officer in charge of the incident or persons from a utility company or other city department.
3. Civilians.
Included are nonemergency personnel.

MF. Familiarity with the Structure

The length of time the casualty was acquainted with the inside of the building or structure.

1. Less than 1 day.
2. 1 to 7 days.
3. 8 to 30 days.
4. 1 to 2 months.
5. 3 to 6 months.
6. 7 to 12 months.
7. Over 1 year.
8. Not a structure.
0. Familiarity with the Structure undetermined or not reported.

MG. Location of Casualty at Time of Ignition

1. Fire casualty intimately involved with ignition.
Included are ignition of clothing on a person and ignition of bedding or furniture on which a person is sitting or lying.
2. Fire casualty in the room or space of fire origin.
Included are vehicle compartments, porches, tents, and play-houses.
3. Fire casualty on same floor as origin of fire.
4. Fire casualty in same building as origin of fire.
5. Fire casualty outside of building of fire origin but on property.
6. Fire casualty off property of fire origin at time of ignition.
8. Not a fire casualty.
9. Location of Casualty at Time of Ignition not classified above.
0. Location of Casualty at Time of Ignition undetermined or not reported.

MH. Relationship of Casualty to Fire Location

Why was the casualty in the area?

1. Lived or worked in building *and* unit of fire origin.
2. Lived or worked in building but *not* unit of fire origin.
3. Did not live or work in building of fire origin, presence valid.
4. Did not live or work in building of fire origin, presence not explained.
5. Fire not in a building, presence in fire area valid.
6. Fire not in a building, presence in fire area not explained.
8. Not a factor.
9. Relationship of Casualty to Fire Location not classified above.
0. Relationship of Casualty to Fire Location undetermined or not reported.

MI. Condition Before Injury

A description which best identifies the condition or apparent condition of the person before the injury.

1. Asleep.
2. Bedridden, other physical handicap.
3. Impaired by drugs, alcohol.
4. Under restraint.
5. Too young to act.
6. Too old to act.
7. Mentally handicapped, senile.
8. Awake, unimpaired.
9. Condition Before Injury not classified above.
0. Condition Before Injury undetermined or not reported.

MJ. Condition Preventing Escape

Most significant condition preventing the casualty's escape.

1. No time to escape; explosion or fire progressed too rapidly.
2. Fire between casualty and exit.
3. Locked door.
4. Illegal gates, locks.
5. Clothing on casualty burning.
6. Moved too slowly.
Included are failures to follow correct (available) escape procedures.
7. Victim incapacitated prior to ignition.
8. No conditions prevented escape or not a factor.
9. Condition Preventing Escape not classified above.
0. Condition Preventing Escape undetermined or not reported.

MK. Activity at Time of Injury

1. Escaping.
2. Rescue attempt.
3. Fire control.
4. Response/return.
5. Cleanup, salvage, mop-up.
6. Sleeping.
7. Unable to act.
8. Irrational action.
9. Activity at Time of Injury not classified above.
0. Activity at Time of Injury undetermined or not reported.

ML. Cause of Injury

The action or lack of action directly resulting in the injury. When the injury occurred as a result of contact with an object, the classification that best describes the manner in which that contact occurred should be identified.

1. Caught in, under, between; trapped by.
2. Exposed to fire products.
Included are flame, heat, smoke, and gas.
3. Exposed to chemicals, radiation.
Excluded are fire products (2).
4. Fell or stepped on, over, into.
5. Overexertion.
6. Rubbed by, contact with.
7. Struck by.
8. Not applicable.
9. Cause of Injury not classified above.
0. Cause of Injury undetermined or not reported.

MM. Nature of Most Serious Injury or Illness

1. Burns and asphyxia/smoke.
2. Burns only.
3. Asphyxia/smoke only.
4. Wound, cut, bleeding.
5. Dislocation, fracture.
6. Complaint of pain.
Included are heart attacks and strokes.
7. Shock.
8. Strain, sprain.
9. Nature of Injury or Illness not classified above.
0. Nature of Injury or Illness undetermined or not reported.

MN. Part of Body Injured

1. Head, neck.
2. Body, trunk, back.
3. Arm.
4. Leg.
5. Hand.
6. Foot.
7. Internal.
Included are respiratory system and heart.
8. Multiple parts.
9. Part of Body Injured not classified above.
0. Part of Body Injured undetermined or not reported.

MO. Disposition of Casualty

1. Refused help.
2. Treated at scene and released.
3. Taken to hospital by fire department vehicle.
4. Taken to hospital by nonfire department vehicle.
5. Taken to other than hospital.
6. Died.
9. Disposition of Casualty not classified above.
0. Disposition of Casualty undetermined or not reported.

PART IV — ALPHABETICAL LISTINGS

Part III of this standard presents data elements that have a coding structure associated with them in their logical sequence (code number order). In this part of the standard, the materials presented in Chapters A, B, C, E, F, G, H, I, and J are shown in alphabetical order by a short description. The same code number will often appear more than once in these lists. It is suggested that persons using these alphabetical lists consult the appropriate classification in Part III to determine whether there are any qualifications on the classification.

Chapter A'. Property Complex

The following alphabetical list is based on the logic and definitions presented in Chapter A for Property Complex. A person using this list should consult Chapter A of Part III to ensure that there are no qualifications on the definition of the term.

97 Airport complex	44 Lodge complex
11 Amusement park complex	70 Manufacturing complex
42 Apartment complex	94 Marina complex
12 Armory complex	33 Medical center complex
12 Athletic facility complex	33 Mental institution complex
12 Ball park complex	63 Military reservation complex
40 Business with residential complex	47 Mobile home complex
93 Campsite complex	44 Motel complex
14 Club complex	59 Office complex
20 College complex	11 Park complex
58 Commercial complex	64 Power production complex
91 Construction complex	34 Prison complex
63 Defense complex	12 Racetrack complex
91 Demolition complex	95 Railroad transport complex
58 Department store complex	11 Recreation complex
58 Discount store complex	40 Residential with business complex
41 Dwelling complex	96 Road complex
20 Educational complex	20 School complex
12 Exhibition hall complex	58 Shopping center complex
65 Farm complex	12 Sports garden complex
59 Government complex (not military)	12 Stadium complex
96 Highway complex	80 Storage complex
33 Hospital complex	96 Street complex
44 Hotel complex	47 Trailer court complex
66 Indian reservation complex	20 University complex
70 Industrial plant complex	80 Warehouse complex
44 Inn complex	94 Waterfront complex
	11 Zoo complex

Chapter B'. Fixed Property Use

The following alphabetical list is based on the logic and definitions presented in Chapter B for Fixed Property Use. A person using this list should consult the appropriate code in Chapter B of Part III to ensure that there are no qualifications on the definition of the term.

This breakdown is to assist the user in finding the appropriate classification. The user should first determine which of the following principal classifications the Fixed Property Use falls into and ensure that the classification ultimately chosen is within that classification.

1. Public Assembly Property
2. Educational Property
3. Institutional Property
4. Residential Property
5. Store, Office Property
6. Basic Industry, Utility, Defense Property
7. Manufacturing Property
8. Storage Property
9. Special Property

- | | |
|--|--------------------------------------|
| 711 Abattoir | 721 Alcohol plant |
| 687 Abrasives plant | 846 Alcoholic beverage stge |
| 742 Academic robe mfg | 723 Ale mfg |
| 221 Academy: boarding | 846 Ale storage |
| 142 Academy: riding | 715 Alfalfa mill |
| 761 Acetylene gas mfg | 761 Alkali mfg |
| 761 Acid plant | 111 Alley: bowling |
| 763 Acrilan fiber mfg | 758 Almanac publishing, printing |
| 776 Adding machine mfg | 524 Alteration shop: garment |
| 595 Addressing firm | 772 Aluminum casting |
| 765 Adhesive mfg | 773 Aluminum hollowware mfg |
| 591 Administrative office | 772 Aluminum refining |
| 799 Advertising display mfg | 773 Aluminum stamping |
| 754 Advertising sign mfg | 772 Aluminum wire drawing |
| 774 Aerial cableway mfg | 784 Ambulance mfg, assembly |
| 928 Aerial tramway | 761 Ammonia synthesis |
| 791 Aeronautical instrument mfg | 761 Ammonium nitrate plant |
| 311 Aged persons home w/nursing | 864 Ammonium nitrate storage |
| 312 Aged persons home w/o nursing | 762 Ammunition mfg |
| 773 Agricultural fork mfg | 552 Ammunition sales |
| 626 Agricultural laboratory | 123 Amphitheater |
| 774 Agricultural machine mfg: non-elec | 113 Amusement hall, place, booth |
| 812 Agricultural products: boxed | 773 Anchor mfg |
| 813 Agricultural products: loose | 942 Anchorage |
| 818 Agricultural supply storage | 791 Anesthetic machine mfg |
| 774 Agricultural tractor mfg | 556 Animal care center |
| 774 Air compressor mfg | 833 Animal feed storage: processed |
| 774 Air condition mchry mfg | 813 Animal feed storage: unprocessed |
| 776 Air conditioner mfg: unit type | 719 Animal food preparation |
| 591 Air force office | 715 Animal food, stock dry feed |
| 925 Air raid shelter | 556 Animal hospital |
| 761 Air reduction | 719 Animal medicine preparing |
| 773 Air rifle mfg | 726 Animal oil refinery: nonedible |
| 786 Aircraft assembly, mfg, repair | 726 Animal oil rendering: nonedible |
| 894 Aircraft freight terminal | 556 Animal shop, supplies |
| 886 Aircraft hangar | 663 Animal trapping, hunting |
| 173 Airline limousine terminal | 531 Antique shop |
| 841 Airport bulk plant | 421 Apartment: 1-2 units w/business |
| 981 Airport construction | 422 Apartment: 3-6 units |
| 632 Airport control tower | 423 Apartment: 7-20 units |
| 841 Airport gasoline distributing | 424 Apartment: over 20 units |
| 171 Airport passenger terminal | 654 Apiary |
| 721 Alcohol beverage distillery | 655 Apple growing |
| 721 Alcohol distilling: industrial | 776 Appliance assembling: elec |
| | 538 Appliance repair w/o sales |

- 532 Appliance repair w/sales
 776 Appliance repair: elec w/mfg
 532 Appliance store
 742 Apron mfg
 913 Aqueduct construction
 594 Architect office
 123 Arena: sports
 761 Argon gas mfg
 591 Armed forces office
 784 Armored car mfg, assembly
 122 Armory hall
 582 Army and navy store
 591 Army office
 677 Arsenic mining, quarrying
 779 Arsenic processing
 152 Art gallery incl sales
 233 Art school
 761 Artificial color mfg: food
 742 Artificial flower mfg
 738 Artificial leather mfg
 791 Artificial limb mfg
 761 Artificial manure mfg
 799 Artist brush mfg
 765 Artist color mfg
 799 Artist material mfg, excl paint
 765 Artist paint mfg
 563 Artist supply sales
 688 Asbestos concrete product mfg
 688 Asbestos fiber working
 678 Asbestos mining, quarrying
 688 Asbestos products plant
 768 Asphalt impregnated paper mfg
 768 Asphalt plant
 774 Asphalt road machine mfg
 678 Asphalt mining, quarrying
 591 Association office
 742 Athletic clothing mfg
 141 Athletic club w/o sleeping
 Athletic club w/sleeping
 (see 441-446)
 981 Athletic field construction
 798 Athletic goods mfg
 758 Atlas mfg
 611 Atomic fission, fusion materials
 mfg
 531 Auction house
 182 Auditorium
 591 Auditors office
 161 Automat
 795 Automatic piano mfg
 784 Automobile accessory mfg
 575 Automobile accessory sales
 873 Automobile accessory storage
 784 Automobile assembly plant
 573 Automobile body repairing,
 painting
 571 Automobile filling station
 883 Automobile lot: sales
 784 Automobile parts mfg
 873 Automobile parts storage
 573 Automobile repair shop
 574 Automobile salesroom
 877 Automobile salvage, wrecking
 573 Automobile seat cover shop
 575 Automobile supply store
 575 Automobile tire store
 573 Automobile top shop
 578 Automobile washing
 573 Automotive muffler shop
 231 Automotive school
 743 Awning mfg
 526 Awning store
 925 Awning, canopy
 773 Axe mfg
 785 Axle mfg: cycle
 784 Axle mfg: motor vehicle
 743 Baby blanket mfg
 787 Baby carriage mfg
 742 Baby clothes mfg
 713 Baby food mfg: homogenized
 712 Baby food mfg: milk base
 711 Bacon curing
 799 Badge mfg
 773 Bag clasp mfg: base metal
 743 Bag mfg: burlap
 746 Bag mfg: leather
 754 Bagatelle board mfg
 892 Bagged mineral prod stge
 737 Bagging cord plant
 716 Bakery
 513 Bakery sales
 719 Baking powder mfg
 824 Bale storage: jute, hemp, sisal
 fiber
 821 Bale storage: cotton
 823 Bale storage: silk, synthetic fiber
 822 Bale storage: wool, worsted
 812 Baled hay outside
 855 Baled paper stge
 774 Ball bearing mfg
 747 Ball mfg: rubber or synthetic
 123 Ball park
 799 Ballpoint pen mfg
 121 Ballroom
 752 Bamboo products mfg
 754 Bank furniture mfg
 758 Banknote printing
 592 Banks
 743 Banner mfg
 754 Bar furniture mfg
 163 Bar: alcoholic beverage
 557 Barber shop
 561 Barber supplies store
 781 Barge building, repairing
 715 Barley milling, rolling
 815 Barn

- 464 Barrack
 752 Barrel plant: wood
 751 Barrel stave mfg
 751 Barrelhead mfg
 677 Barytes mining, quarrying
 761 Barytes processing
 773 Base metal cold pressing
 752 Basket mfg
 686 Batch plant: concrete or cement
 116 Bathhouse
 116 Bathing beach
 747 Bathing cap mfg
 771 Bathtub mfg: cast iron
 764 Bathtub mfg: plastic
 747 Battery case mfg
 776 Battery mfg
 739 Batting mill
 673 Bauxite mine, quarry
 772 Bauxite processing
 773 Bayonet mfg
 142 Beach club
 715 Bean grinding, splitting
 811 Bean storage: bulk
 774 Bearing mfg: roller, ball, needle
 557 Beauty shop
 754 Bedding plant
 743 Bedspread mfg
 654 Bee raising
 723 Beer mfg
 163 Beer parlor
 846 Beer stge
 742 Belt mfg, excl leather
 746 Belt mfg: leather
 744 Belting leather tannery
 747 Belting mfg: rubber or synthetic
 744 Belting plant: canvas
 732 Belting plant: cloth
 767 Benzene mfg
 141 Bet taking shop
 723 Beverage mfg: beer
 724 Beverage mfg: nonalcoholic
 721 Beverage mfg: spirits
 722 Beverage mfg: wine
 846 Beverage storage: alcoholic
 832 Beverage storage: soft drink
 514 Beverage store
 785 Bicycle assembly and repair
 552 Bicycle sales and repair
 871 Billet storage
 112 Billiard center
 754 Billiard table mfg
 774 Binder machine mfg
 758 Binder mfg: paper, cardboard
 758 Bindery, book
 113 Bingo hall
 792 Binocular mfg
 621 Biological laboratory
 719 Birdseed mixing
 716 Biscuit mfg
 674 Bituminous sand operation
 773 Blacksmith shop
 758 Blank book mfg
 776 Blanket mfg: elec
 743 Blanket mfg: nonelec
 771 Blast furnace
 762 Blasting agent mfg
 761 Bleach mfg
 123 Bleachers for seating
 735 Bleaching plant
 726 Blended table oil mfg
 776 Blender mfg: elec, kitchen
 754 Blind mfg
 351 Blind persons institution
 742 Blouse mfg
 595 Blueprint firm
 311 Boarding care home: aged
 w/nursing
 312 Boarding care home: aged
 w/o nursing
 322 Boarding care home: children
 332 Boarding care home: non-aged
 convalescent
 431 Boarding house: 4-8 roomers
 432 Boarding house: 9-15 roomers
 Boarding house: over 15 roomers
 (see 441-446)
 221 Boarding school classroom bldg
 576 Boat accessory sales
 782 Board mfg: 65 ft and under
 885 Boat mooring, fueling, docking
 782 Boat repair: no sales
 576 Boat sales
 885 Boat storage
 885 Boathouse
 143 Boating club
 782 Boatyard: vessels 65 ft and under
 753 Bobbin mfg
 785 Body mfg: cycle
 784 Body mfg: motor vehicle
 573 Body repair shop: motor vehicle
 672 Bog ore mining, quarrying
 717 Boiled sweets mfg
 688 Boiler gasket mfg
 614 Boiler house
 771 Boiler mfg: cast iron
 781 Boiler mfg: marine
 688 Boiler packing mfg: asbestos
 774 Boilerhouse machine mfg
 773 Bolt mfg: metal
 662 Bolt wood hewing, rough cutting
 612 Bomb assembly: nuclear
 773 Bomb case mfg
 762 Bomb filling
 925 Bomb shelter
 726 Bone oil refining
 799 Bone products mfg

- 719 Bone scraping, crushing
758 Book bronzing, gilding, edging
758 Book mfg: blank
758 Book publishing, printing
758 Book repair
541 Book store: new, used
758 Bookbinding
774 Bookbinding machine mfg
141 Bookmaker place: gambling
774 Boot mchry mfg
741 Boot mfg, excl vulcanized rubber
747 Boot mfg: vulcanized rubber
523 Boot repair
753 Boot tree mfg
523 Bootblack stand
732 Bootlace mfg: braided cotton
733 Bootlace mfg: braided wool
734 Bootlace mfg: braided, mixed fibers
677 Borate minerals mining, quarrying
761 Borate minerals processing
774 Boring machine mfg
756 Bottle cap, seal mfg
683 Bottle plant
683 Bottle stopper, glass mfg
774 Bottling mchry mfg
724 Bottling plant
753 Bowl mfg: wood
111 Bowling establishment
552 Bowling shop
773 Box mfg: metal
756 Box mfg: paper
752 Box mfg: wood
742 Brace suspender mfg
732 Braid mfg: cotton
734 Braid mfg: mixed fibers
733 Braid mfg: wool or worsted
737 Braided cord mfg
688 Brake lining mfg
785 Brake mfg: cycle
784 Brake mfg: motor vehicle
721 Brandy mfg
773 Brass hollow ware
772 Brass refining
773 Brass stamping
772 Brass wire drawing
742 Brassiere mfg
716 Bread mfg
715 Breakfast food mfg
723 Brewery
774 Brick making machine mfg
682 Brick mfg: glass
681 Brick mfg: heat resisting
681 Brick plant: nonglass
921 Bridge
913 Bridge construction
914 Bridge demolition
676 Brine pit
768 Briquette mfg
895 Briquette stge
773 Bronze hollow ware
772 Bronze refining
773 Bronze stamping
772 Bronze wire drawing
799 Broom mfg
931 Brush growth outdoors
799 Brush mfg
773 Bucket mfg: metal
752 Bucket mfg: wood
773 Buckle mfg: base metal
794 Buckle mfg: precious metal
851 Builders supply warehouse
915 Building condemned
688 Building face stone works
751 Building mfg: portable wooden
755 Building paper mfg: fiber
751 Building products mfg: wood
555 Building supply store
911 Building under construction
912 Building under demolition
918 Building under renovation
843 Bulk lp-gas plant
841 Bulk plant: petroleum
774 Bulldozer mfg
752 Bung mfg
466 Bunkhouse
753 Buoy mfg: cork
743 Burlap bag mfg
824 Burlap storage, bales, bags
784 Bus mfg, assembly
883 Bus parking
574 Bus sales
925 Bus stop shelter
173 Bus terminal
232 Business school: commercial
712 Butter mfg
835 Butter stge
799 Button mfg
116 Cabana
754 Cabinet shop
774 Cable car mfg
775 Cable mfg: insulated electric
634 Cable: telephone, telegraph
634 Cable terminal: telephone
161 Cafe
161 Cafeteria
122 Cage: athletic
716 Cake mfg
719 Cake mix mfg
776 Calculating machine mfg
792 Camera equipment plant
792 Camera mfg
553 Camera store
935 Campsite w/ utilities
773 Can mfg: metal

- 794 Canadian royal mint
 726 Candle mfg
 726 Candle plant
 717 Candy mfg
 513 Candy shop
 752 Cane container, products mfg
 713 Cannery: fruit, vegetable
 714 Cannery: sea food
 744 Canvas belting plant
 743 Canvas goods mfg
 526 Canvas goods store
 826 Canvas storage
 742 Cap or hat mfg
 591 Capitol building
 774 Capstan mfg
 578 Car washing
 717 Caramel mfg
 768 Carbon black plant
 895 Carbon black stge
 768 Carbon mfg
 799 Carbon paper plant
 687 Carborundum wheels mfg
 784 Carburetor mfg: motor vehicle
 774 Card can mfg, for textile machine
 756 Card mfg: index
 774 Cardboard box machine mfg
 756 Cardboard box or file mfg
 562 Carpenter equipment sales
 916 Carpenter shed
 796 Carpet cleaning, dyeing
 732 Carpet, rug mfg: cotton
 734 Carpet, rug mfg: mixed fibers
 733 Carpet, rug mfg: wool
 826 Carpet storage
 536 Carpet store
 516 Carry-out food store
 756 Carton mfg
 855 Carton stge
 762 Cartridge filling
 762 Cartridge works
 773 Carving fork, knife mfg
 773 Casement window mfg: metal
 773 Cash box mfg
 776 Cash register mfg
 752 Cask head mfg
 752 Cask mfg
 753 Casket mfg
 852 Casket stge and display: wood
 876 Casket stge and display: metal
 771 Cast iron products mfg
 726 Castor oil refining
 584 Catalogue store
 776 Cathode ray tube mfg
 652 Cattle raising
 776 Ceiling fixture mfg: elec
 341 Cell block: prison for men
 342 Cell block: prison for women
 925 Cellar: cyclone
 762 Cellulose nitrate plastic fabri-
 cating
 762 Cellulose nitrate plastic mfg
 762 Cellulose nitrate plastic reclaim-
 ing
 685 Cement mill, plant
 892 Cement stge
 934 Cemetary
 591 Central forces office
 675 Ceramic clay extraction from
 earth
 716 Cereal filler mfg
 715 Cereal plant
 773 Chain mfg: metal w/o rollers
 774 Chain mfg: metal w/rollers
 928 Chair lift
 754 Chair mfg: any material
 675 Chalk extraction from earth
 688 Chalk product mfg
 942 Channel
 131 Chapel: church
 134 Chapel: funeral
 661 Charcoal burning in forest
 768 Charcoal mfg
 768 Charcoal processing
 895 Charcoal stge
 784 Chassis mfg: motor vehicle
 798 Checkerboard mfg
 712 Cheese factory: natural, pro-
 cessed
 742 Chefs clothing mfg
 621 Chemical laboratory
 761 Chemical mfg: general
 677 Chemical mining
 761 Chemical salts mfg
 861 Chemical storage: basic industrial
 862 Chemical storage: hazardous
 798 Chess set mfg
 717 Chewing gum mfg
 725 Chewing tobacco mfg
 334 Child welfare clinic
 322 Childrens home
 491 Childrens playhouse
 567 Chimney cleaning firm
 681 Chimney liner mfg
 681 Chimney pipes, clay mfg
 684 China decorating, repair, mfg
 684 China ornaments mfg
 684 China pottery mfg
 545 China shop
 893 China stge
 593 Chiropodist office
 593 Chiropractor office
 773 Chisel mfg
 717 Chocolate factory
 758 Christmas card printing
 131 Church
 133 Church meeting hall

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|---|--|
| 591 Church office building | 768 Coating paper w/asphalt, tar |
| 545 Church supply store | 799 Coating paper w/carbon |
| 722 Cider mfg: hard | 792 Coating paper w/sensitizer |
| 724 Cider mfg: soft | 523 Cobbling |
| 752 Cigar box mfg | 721 Cocktail mfg |
| 725 Cigar mfg | 717 Cocoa butter mfg |
| 838 Cigar storage | 717 Cocoa processing |
| 542 Cigar store | 739 Coconut fiber spinning, weaving |
| 746 Cigarette case mfg | 726 Coconut oil refining |
| 755 Cigarette paper mfg | 726 Cod liver oil refining |
| 725 Cigarette plant | 655 Coffee growing |
| 838 Cigarette storage | 715 Coffee mfg: instant |
| 726 Cinnamon oil mfg | 715 Coffee mill |
| 775 Circuit breaker mfg | 715 Coffee roasting |
| 773 Cistern mfg | 753 Coffin mfg |
| 771 Cistern mfg: cast iron | 876 Coffin stge & display: metal |
| 141 City club | 852 Coffin stge & display: wood |
| 616 City gas mfg | 794 Coin mfg |
| 591 City hall, office bldg | 746 Coin purse mfg |
| 633 Civil Defense communications center | 564 Coin-operated dry cleaning |
| 714 Clam packing | 564 Coin-operated laundry |
| 675 Clay extraction from earth | 739 Coir mat mfg |
| 681 Clay flooring tile mfg | 768 Coke by-products plant |
| 893 Clay products stge | 768 Coke mfg |
| 681 Clay roofing tile mfg | 616 Coke oven in gas works |
| 681 Clay screening, preparing | 771 Coke oven in iron, steel plant |
| 743 Cleaning cloth mfg | 895 Coke storage |
| 742 Clerical vestment mfg | 835 Cold storage |
| 334 Clinic | 742 Collar mfg |
| 793 Clock mechanism: part mfg | 241 College classroom bldg |
| 793 Clock mfg | 461 College dormitory |
| 741 Clog footwear mfg | 221 College preparatory school: boarding |
| 732 Cloth belting plant | 215 College preparatory school: day |
| 738 Cloth coating processes | 783 Colliery rail tub mfg |
| 742 Cloth lining mfg | 774 Colliery winding gear mfg |
| 825 Cloth storage | 765 Color mfg: artists |
| 522 Clothing accessory sales | 774 Comb mfg, for textile machine |
| 524 Clothing alteration shop | 841 Combustible liquids tank stge |
| 742 Clothing plant | 862 Commercial explosives stge |
| 796 Clothing repair | 758 Commercial lithographing |
| 521 Clothing sales, rental | 758 Commercial printing |
| 141 Club: city | 232 Commercial school |
| 142 Club: country | 591 Commodity broker, exchange |
| 162 Club: night | 913 Communication system tower, equipment constr |
| 143 Club: yacht, boating | 774 Composing room equip mfg |
| 785 Clutch mfg: cycle | 821 Compress: cotton |
| 784 Clutch mfg: motor vehicle | 774 Compressor mfg |
| 768 Coal distillation | 644 Compressor station: gas |
| 671 Coal drying | 635 Computer center |
| 671 Coal mining | 776 Computer mfg: elec |
| 671 Coal prospecting | 182 Concert hall |
| 895 Coal stge | 686 Concrete batch plant |
| 768 Coal tar oils mfg | 681 Concrete block mfg |
| 742 Coat mfg | 774 Concrete mixer mfg |
| 755 Coated paper mfg | 686 Concrete mixing plant |
| 738 Coating cloth | 688 Concrete pipe mfg |
| 688 Coating paper w/abrasives | |

686 Concrete ready-mix plant	735 Cotton finishing
915 Condemned property	731 Cotton gin
719 Condiment mfg	732 Cotton mill: cloth or yarn
761 Confectioners color mfg	732 Cotton mill: full process
513 Confectionery sales	732 Cotton mill: part process
574 Construction equipment sales	732 Cotton mill: reworking
884 Construction mchry storage	737 Cotton rope, cord mfg
911 Construction of building	821 Cotton storage: bales
913 Construction of structure other than bldg	731 Cottonseed house
981 Construction site	726 Cottonseed oil plant
981 Construction site other than structure	811 Cottonseed storage: bulk
594 Consulting engineers office	741 Counter shoe mfg
773 Container mfg: metal	743 Counterpane mfg
756 Container mfg: paper	142 Country club
761 Continuous filament yarn mfg	811 Country grain elevator
774 Contractors machine mfg	513 Country store
594 Contractors office: permanent	311 County home w/nursing
916 Contractors shed	312 County home w/o nursing
311 Convalescent home: aged w/nursing	591 County office
312 Convalescent home: aged w/o nursing	342 County workhouse: women
332 Convalescent home: sick persons	341 County workhouse: men
465 Convent	783 Coupler mfg: automatic railroad
928 Conveyor	773 Coupling mfg: metal
774 Conveyor mfg	155 Court house
716 Cookie mfg	743 Cover mfg
751 Cooperage stock mfg	652 Cow raising
752 Coopering	714 Crab packing
773 Copper hollow ware mfg	773 Crane hook mfg
673 Copper mine, quarry	775 Crane mfg: elec
772 Copper refining	774 Crane mfg: nonelec
773 Copper stamping, cold pressing	884 Crane storage: mobile
772 Copper wire drawing	752 Crate mfg: wood
775 Cord mfg: insulated electric	774 Crawler tractor mfg
737 Cordage plant	765 Crayon mfg
721 Cordial mfg	712 Creamery
662 Cordwood stge	591 Credit company office
753 Cork grinding	134 Crematorium
753 Cork plant	751 Creosote impregnating
753 Cork products mfg	811 Crib: corn
811 Corn crib	655 Crops
726 Corn oil refining	681 Crucible mfg: fireclay, graphite
232 Correspondence school	674 Crude oil stge at well
756 Corrugated paper fabricating	674 Crude oil well, extracting
755 Corrugated paper mfg	842 Cryogenic gas stge
742 Corset mfg	776 Crystal mfg: elec
766 Cosmetic mfg	913 Culvert construction
866 Cosmetic storage	114 Curling rink
561 Cosmetic supply store	796 Curtain cleaning, dyeing
545 Costume jewelry sales	743 Curtain mfg
742 Costume mfg	526 Curtain shop
799 Costume novelties, jewelry mfg	747 Cushion mfg: rubber or synthetics
521 Costume rental store	682 Cut glass mfg
732 Cotton bag mfg	773 Cut nail mfg
821 Cotton compress stge	741 Cut sole mfg
	773 Cutlery mfg: household
	791 Cutlery mfg: surgical, dental
	545 Cutlery store
	774 Cutting machine mfg

- 785 Cycle mfg
 552 Cycle shop
 925 Cyclone cellar
 761 Cyclopropane gas mfg
 712 Dairy
 776 Dairy appliance mfg: elec
 774 Dairy machinery mfg: nonelec
 515 Dairy quick-freeze store
 515 Dairy store
 913 Dam construction
 121 Dance hall
 233 Dance school
 113 Dance studio
 775 Dashboard instrument mfg
 756 Data processing card mfg
 635 Data processing center
 776 Data processing machine mfg
 799 Data stamp mfg
 717 Date mfg: stuffed
 321 Day care center: over 4 hrs
 321 Day nursery school: over 4 hrs
 211 Day nursery school: 4 hrs or less
 351 Deaf persons institution
 773 Deed box mfg
 718 Deep fat frying
 591 Defense forces office
 776 Dehumidifier mfg: unit type
 713 Dehydration plant
 516 Delicatessen
 912 Demolition of building
 914 Demolition project: structure
 other than bldg
 981 Demolition site: other than struc-
 ture
 791 Dental supply mfg
 593 Dental surgeons office
 593 Dentists office
 891 Department store storage
 581 Department store w/furniture
 583 Department store w/o furniture
 174 Depot: railroad, street level
 647 Desalting plant
 233 Designers school
 344 Detention camp: men
 343 Detention home: juvenile
 342 Detention home: women
 726 Detergent mfg
 869 Detergent stge
 762 Detonator mfg
 621 Diagnostic laboratory
 794 Diamond cutting
 544 Diamond sales
 796 Diaper service plant
 776 Dictating equipment mfg
 538 Dictating equipment repair
 w/o sales
 532 Dictating equipment sales
 772 Die casting
 758 Die stamping: paper
 774 Diesel engine mfg
 161 Diner
 161 Dining hall
 758 Directory publishing, printing
 633 Disaster control center
 583 Discount store over 10,000 sq ft
 582 Discount store under 10,000 sq ft
 684 Dish mfg
 761 Disinfectant mfg: commercial
 766 Disinfectant mfg: pharmaceutical
 687 Disk mfg: grinding, abrasive
 754 Display case mfg
 768 Distillation: coal
 767 Distillation: petroleum tar
 721 Distillery: alcohol
 646 District heating system
 754 Divan bed mfg
 961 Divided highway
 898 Dock
 593 Doctors office
 636 Document center
 798 Doll mfg
 682 Domestic glassware mfg
 684 Domestic pottery, china mfg
 753 Domestic woodware mfg
 773 Door frame mfg: metal
 773 Door mfg: metal
 751 Door mfg: wood
 751 Door or window screen mfg: wood
 466 Dormitory: bunk house
 462 Dormitory: fraternity or sorority
 464 Dormitory: military
 463 Dormitory: nurses quarters
 465 Dormitory: religious
 461 Dormitory: school, college
 Dormitory type hotel
 (see 441-446)
 716 Doughnut mfg
 773 Drag mfg: metal
 774 Dragline excavator mfg
 981 Drainage project: land
 743 Drapery mfg
 526 Drapery store
 541 Drawing supply store
 981 Dredging other than mining
 742 Dress mfg
 742 Dressing gown mfg
 524 Dressmaking shop
 776 Drill mfg: elec
 674 Drilling for oil or gas
 775 Drink mchry mfg
 164 Drive-in eating place
 184 Drive-in theater
 233 Driving school
 773 Drop forge metal pieces mfg
 774 Drop hammer machine mfg