

## Major Fire or Catastrophe Alert

### I. Introduction

#### A. Background

In 1982, there were approximately 676,500 residential, structural fires in the United States, based on data from the U.S. Fire Administration and the National Fire Protection Association. These fires resulted in almost 5,000 deaths, 44,000 injuries, and \$3,253 billion in property loss. Such fires and fire losses are of major concern to the Consumer Product Safety Commission, which since its inception has made a strong commitment toward improving fire safety. A key factor in reducing these fire losses is to learn more about the hazard scenarios involved. In-depth investigations of these fires should provide data critical to any regulatory or voluntary action that the Commission should choose to follow-up to these incidents may be a heightened public awareness of the Commission and its goal of consumer safety.

It is the purpose of these guidelines to provide information concerning the investigation of major fires or other catastrophic events involving consumer products. Such events may require procedures beyond those normally required for routine investigations, not only because of the need for detailed technical information about the incident, but also because of the likelihood of the incident being of high public visibility and importance.

#### B. Incidents of Interest

Incidents to which these guidelines apply include:

1. Fires in commercial buildings, hotel, motels, and public places.
2. Incidents in which there were multiple losses of life and/or large property losses.
3. Incidents that will generate major metropolitan, regional, or national news interest.

It should be noted that while most of these high visibility incidents will probably be fires, our interests are not limited to fires. These guidelines should also be used for other types of serious incidents; e.g., multiple fatalities due to CO poisoning from residential heating equipment.

C. Implementation of the Program

When any Commission employees learns of an incident meeting the criteria noted above the following procedures are to be followed:

1. As discussed in the January 13, 1984 memorandum from Jeanne Devers White to the Regional Office Directors and Resident Posts, the employee is to immediately (anytime - day or night) notify his/her Regional Office Director or Director's designate of the incident. The Director or Director's designate will in turn notify OEX. (See Attachment 1)
2. As soon as possible, complete the Major Fire or Catastrophe Alert Sheet (see Attachment 2) and tele-copy simultaneously to OEX, OPM, EPDS, HS, ES, and CACA. Resident posts should tele-copy this form to the same addresses with a copy to their Regional Office.
3. The field is to proceed with the investigation of the incident on its own initiative, indicating its course of action on the Alert Sheet and by telephone. (See Attachment 3)
  - a. For selected incidents of Commission interest, OEX may indicate the need for special procedures, on a case-by-case basis.
  - b. Any technical directorate desiring further information and/or sample collection should coordinate these requests through Art McDonald in EPDS (492-6539). According to established procedures, CACA will continue to contact the field directly in cases where there is possible Section 15 involvement.
  - c. For all incidents followed up for in-depth investigation, use the product-specific guidelines detailed in the Commission's 9010.24 In-Depth Investigations Manual (see Attachment 4) where applicable. Additionally, a combustion toxicity guideline is currently being developed which should be used where casualties are believed to have occurred due to the inhalation of combustion products. For all fire investigations, use the Human Behavior/Escape from Fire guidelines (Appendix 31 of 9010.24) where appropriate.

II. Instructions for Collecting Specific Information

Whenever possible, product-specific guidelines should be used; however, the following general instructions should apply to most investigations, including those for which a specific product has not been identified as the cause of the fire.

A. Free Text Summary

Please provide a summary of the sequence of events that occurred prior to, during, or subsequent to the incident. If a sample was collected, be sure to include the sample collection number in the free text.

B. Description of Product

1. If product is known, see 9010.24 instructions where specific guidelines exist.
2. If product is known, but specific guidelines do not exist, describe the product(s) directly involved in the incident in detail, also indicating manufacturer, brand name, model number, age, history of use and repairs, and any other information that may be relevant to the investigation. Describe in detail how each product was involved in the incident.
3. If product is not known, proceed to D.

C. Description of Victim Contact with Product

1. If product is known, see 9010.24 instructions where specific guidelines exist.
2. If product is known but specific guidelines do not exist, describe any interaction between the victim(s) and product(s) involved, and describe how the interaction was related in any way to the cause of the incident and/or casualties.

D. Description of Victim

1. Report the type of injury, as well as the age, sex, and long term prognosis for each of the victims.
2. Determine if any of the victims were under the influence of alcohol or drugs at the time of the incident, or if they suffered from any physical infirmities that may relate to the cause or outcome of the incident.
3. Describe the location of each victim relative to the location of the point of ignition, explosion, etc. Also, describe how they were alerted to the fire, etc. and what actions they took to escape.

E. Description of Environment

If a fire occurred, describe the room of origin and report the extent of smoke and flame damage to the room and the rest of the structure (e.g., confined to the item of origin, floor of origin, entire structure, etc.). Include a description of other items in the room that burned or smoldered, including the wall,

window and floor coverings. If possible, describe the nature of the fire, whether primarily smoldering, flaming, or both. If this was a smoldering fire, try to characterize the smoke produced; e.g. dense, dark smoke, etc. Indicate if this appeared to be a quickly burning fire (i.e., rapid flame spread). Note the length of time between ignition and discovery of the fire. Describe the factors related to the movement of smoke, e.g., open stair wells or forced-air heating or air conditioning systems.

F. Fire Detection and Suppression Devices

If a fire occurred, determine whether or not smoke detector(s) were present and if and when they alerted the victim(s) to the fire. Report the type of detector(s) - photoelectric or ionization, the number and location of each detector in relation to the fire, whether they were AC or battery-powered, the age of the detector(s), manufacturer, brand, model number, and any other information that may be relevant to the incident or detector(s) involved. If a smoke detector was present, but did not function properly, try to determine the cause of the malfunction (e.g., no batteries, dead batteries, etc.). If sprinklers were present determine their role in the extinguishment of the fire.

G. Fire Toxicity

Guidelines concerning fire toxicity are currently being developed. Until they are finalized, the following information should be collected for all fires involving deaths or injuries which are believed to have occurred due to the inhalation of combustion products.

1. Describe the location of each victim relative to the point of origin of the fire. Use photographs or diagrams wherever possible.
2. Describe the area immediately around each victim (e.g., burn areas, soot cover, etc.)
3. Describe all major furnishings in the room that burned or smoldered, including the wall, window, and floor coverings. If possible, describe the nature and amount of smoke produced by these furnishings.
4. Indicate whether any household chemicals were involved in the fire in addition to the furnishings involved.
5. If a fatality occurred, be sure to get a copy of the medical examiner's or coroner's report, and where available, a copy of the autopsy report. Of particular interest is information provided from any blood report. Of particular interest is information provided from any blood chemistry tests including carboxyhemoglobin levels (COHb). If included in post mortem reports, provide a description of burn to face and nasal hair, evidence of soot in upper airways, color of face and hands, and any evidence of burns or damage to eyes.

H. Other

1. Remember that timeliness of investigation is extremely critical to the collection of the most complete information about the incident and to the likelihood of sample collection.
2. Identify clearly the source of information provided; i.e., the persons with whom the CPSC investigator spoke or corresponded about the accident. If a fire occurred, the investigator should contact the fire department responsible for fighting the fire (normally the department in whose jurisdiction the fire occurred) for information about the incident and where possible, obtain a copy of that department's report. In major fires, several different fire departments may be involved. If a fatality occurred, the investigator should try to get the medical examiner's or coroner's report. If an autopsy was performed try to get a copy of the autopsy report.
3. Often it is difficult to determine immediately the cause of the incident. There may be conflicting statements from the fire department, victim, and other observers or investigators. When this occurs, state clearly what all parties thought was the cause of the incident as well as any conflicting opinions. If the investigator has any reason to believe that statements made by any parties are inaccurate, he or she should give his or her version of what the scenario and events appeared to be.
4. It should be remembered that guidelines cannot be expected to cover all the pertinent factors that may apply to a particular incident. Thus, the investigator should be sure to include an explanation of any such factors in the narrative, even if they have not been specifically mentioned in the guidelines.

III. Instructions for Photographing and/or Diagramming Accident Scene and Factors Related to the Accident Sequence

- A. Photographs or diagrams of the products involved in the incident are very helpful. If applicable, indicate where ignition occurred, and from where specific samples were obtained.
- B. A diagram or sketch of the floor plan is important when indicating such things as room of origin, extent of damage, location of victims, escape routes, or where escape routes were blocked, movement of smoke, etc.

