

ACCIDENT REPORTING

Reference: 29 CFR, §1904.39

Summary

Any work-related incident that results in a fatality or the hospitalization of three or more employees must be reported to OSHA within eight hours of the time the employer learns of its occurrence. You must also report a fatality caused by a heart attack at work.

The report must be made verbally (via telephone or in person) to the OSHA Area Office nearest to the site of the incident. If you are unable to speak with someone at the Area Office, use the OSHA toll-free number (1-800-321-6742).

Report

The OSHA Area Director may require additional reports as he deems necessary. Before calling, gather as much information as is readily available. At a minimum, you are expected to report:

- The establishment name;
- The location of the incident;
- The time of the incident;
- The number of fatalities or hospitalized employees;
- The names of any injured employees;
- Your contact person and his or her phone number; and
- A brief description of the incident.

Exceptions

You are not required to report fatalities or multiple hospitalization incidents that:

- Do not occur within thirty (30) days of an incident;
- Involve a commercial airplane, train, subway or bus accident (if work related, you must still record these in your injury and illness records – see §26);
- Involve a motor vehicle accident occurring on a public street or highway, and does not occur in a construction work zone (if work related, you must still record these in your injury and illness records – see §26.)

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ACCIDENT INVESTIGATION

Introduction

All incidents, whether a near miss or an actual injury-related event, should be investigated. Near miss reporting and investigation allow you to identify and control hazards before they cause a more serious incident. Accident/incident investigations are a tool for uncovering hazards that either were missed earlier or have managed to slip out of the controls planned for them. It is useful only when done with the aim of discovering every contributing factor to the accident/incident to "foolproof" the condition and/or activity and prevent future occurrences. In other words, your objective is to identify root causes, not to primarily set blame.

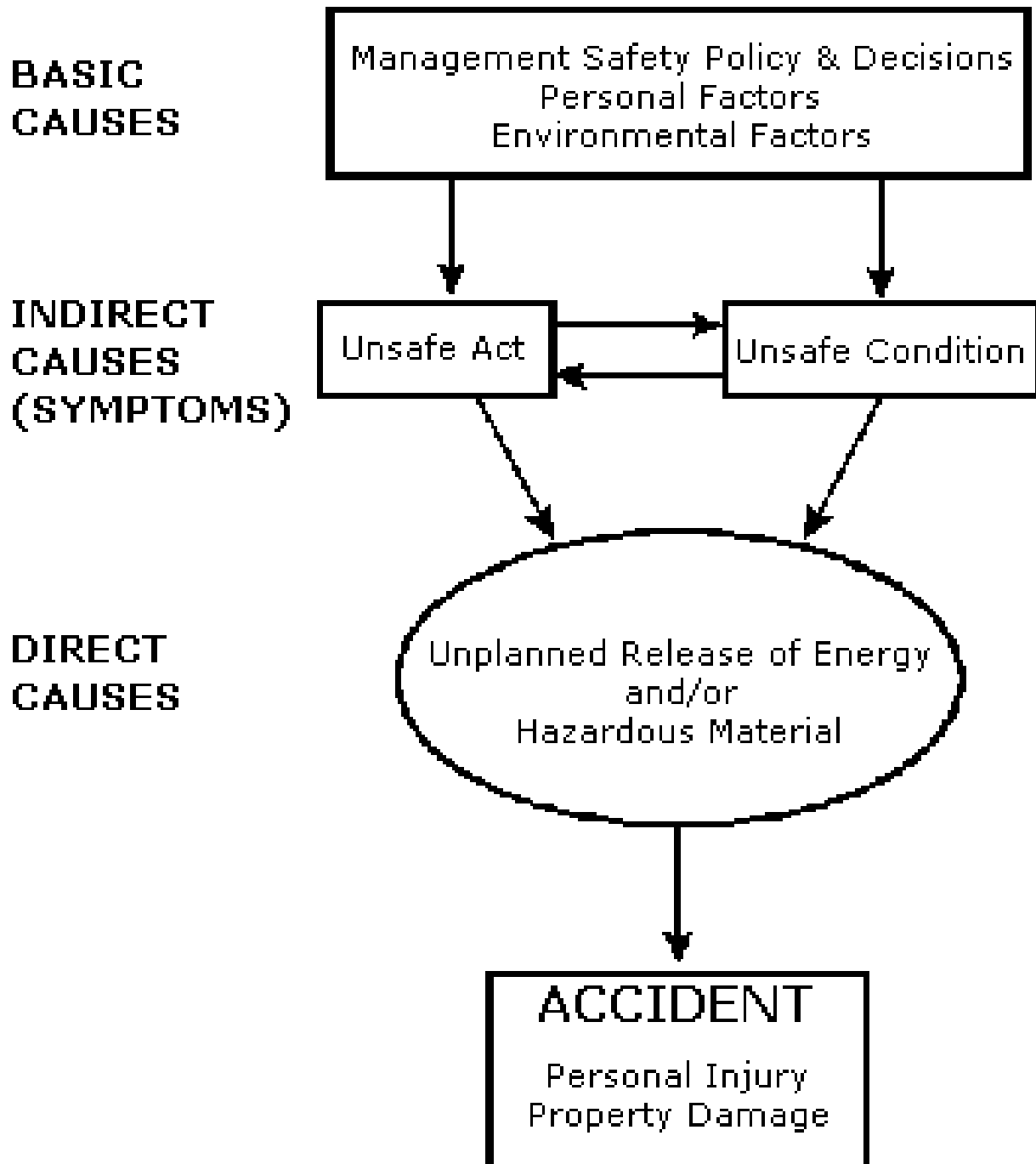
The difference between an accident and a "near miss" is usually nothing more than sheer luck. Therefore, near-misses should be investigated as though an accident had occurred.

Accident Prevention

Accidents are usually complex. An accident may have multiple events that can be considered causes. A detailed analysis of an accident will normally reveal three cause levels: basic, indirect, and direct.

At the lowest level, an accident results only when a person or object receives an amount of energy or hazardous material that cannot be absorbed safely. This energy or hazardous material is the **direct cause** of the accident. The direct cause is usually the result of one or more unsafe acts or unsafe conditions, or both. Unsafe acts and conditions are the **indirect causes** or symptoms. In turn, indirect causes are often traceable to poor management policies and decisions, or to personal or environmental factors. These are the **basic causes**.

In spite of their complexity, most accidents are preventable by eliminating one or more causes. Accident investigations determine not only what happened, but also how and why. The information gained from these investigations can prevent recurrence of similar or perhaps more disastrous accidents. Accident investigators are interested in each event as well as in the sequence of events that led to an accident. The accident type is also important to the investigator. The recurrence of accidents of a particular type or those with common causes shows areas needing special accident prevention emphasis.



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Who Should Investigate?

The usual investigator for incidents is the supervisor in charge of the involved area and/or activity. Employee involvement will not only give you additional expertise and insight, but in the eyes of the workers, will lend credibility to the results. Employee involvement also benefits the involved employees by educating them on potential hazards, and the experience usually makes them believers in the importance of safety, thus strengthening the safety culture of the organization. The safety department or the person in charge of safety and health should participate in the investigation or review the investigative findings and recommendations. Many companies use a team or a subcommittee or the joint employee-management committee to investigate incidents involving serious injury or extensive property damage.

Investigative Procedures

The actual procedures used in a particular investigation depend on the nature and results of the accident. The investigator uses most of the following steps:

1. Define the scope of the investigation.
2. Select the investigators. Assign specific tasks to each (preferably in writing).
3. Present a preliminary briefing to the investigating team, including:
 - a. Description of the accident, with damage estimates.
 - b. Normal operating procedures.
 - c. Maps (local and general, if applicable).
 - d. Location of the accident site.
 - e. List of witnesses.
 - f. Events that preceded the accident.
4. Visit the accident site to get updated information.
5. Inspect the accident site.
 - a. Secure the area. Do not disturb the scene unless a hazard exists.
 - b. Prepare the necessary sketches and photographs. Label each carefully and keep accurate records.

6. Interview each victim and witness. Also interview those who were present before the accident and those who arrived at the site shortly after the accident. Keep accurate records of each interview. Use a tape recorder if desired and if approved.
7. Determine
 - a. What was not normal before the accident.
 - b. Where the abnormality occurred.
 - c. When it was first noted.
 - d. How it occurred.
8. Analyze the data obtained in step 7. Repeat any of the prior steps, if necessary.
9. Determine:
 - a. Why the accident occurred.
 - b. A likely sequence of events and probable causes (direct, indirect, basic).
 - c. Alternative sequences.
10. Check each sequence against the data from step 7.
11. Determine the most likely sequence of events and the most probable causes.
12. Conduct a post-investigation briefing.
13. Prepare a summary report, including the recommended actions to prevent a recurrence. Distribute the report according to applicable instructions.

An investigation is not complete until all data are analyzed and a final report is completed. In practice, the investigative work, data analysis, and report preparation proceed simultaneously over much of the time spent on the investigation.

Fact-Finding

Gather evidence from many sources during an investigation. Get information from witnesses and reports as well as by observation. Interview witnesses as soon as possible after an accident. Inspect the accident site before any changes occur. Take photographs and make sketches of the accident scene. Record all pertinent data on maps. Get copies of all reports. Documents containing normal operating procedures, flow diagrams, maintenance charts, or reports of difficulties or abnormalities are

particularly useful. Keep complete and accurate notes in a bound notebook. Record pre-accident conditions, the accident sequence, and post-accident conditions. In addition, document the location of victims, witnesses, machinery, energy sources, and hazardous materials.

In some investigations, a particular physical or chemical law, principle, or property may explain a sequence of events (e.g., expansion of liquefied gas trapped within a pipe or hose). Include laws in the notes taken during the investigation or in the later analysis of data. In addition, gather data during the investigation that may lend itself to analysis by these laws, principles, or properties. An appendix in the final report can include an extended discussion.

Interviews

In general, experienced personnel should conduct interviews. OSHA recommends the team include an individual with a legal background, if possible. In conducting interviews, the manager or team should:

1. Appoint a speaker for the group.
2. Get preliminary statements as soon as possible from all witnesses.
3. Locate the position of each witness on a master chart (including the direction of view).
4. Arrange for a convenient time and place to talk to each witness.
5. Explain the purpose of the investigation (accident prevention) and put each witness at ease.
6. Listen, let each witness speak freely, and be courteous and considerate.
7. Take notes without distracting the witness. Use a tape recorder only with consent of the witness.
8. Use sketches and diagrams to help the witness.
9. Emphasize areas of direct observation. Label hearsay accordingly.
10. Be sincere and do not argue with the witness.
11. Record the exact words used by the witness to describe each observation. Do not "put words into a witness' mouth."
12. Word each question carefully and be sure the witness understands.

13. Identify the qualifications of each witness (name, address, occupation, years of experience, etc.).
14. Supply each witness with a copy of his or her statements. Signed statements are desirable.

After interviewing all witnesses, the manager or team should analyze each witness' statement. They may wish to re-interview one or more witnesses to confirm or clarify key points. While there may be inconsistencies in witnesses' statements, investigators should assemble the available testimony into a logical order. Analyze this information along with data from the accident site.

Not all people react in the same manner. For example, a witness within close proximity to the accident may have an entirely different story from one who saw it at a distance. Some witnesses may also change their stories after they have discussed it with others. The reason for the change may be additional clues.

A witness who has had a traumatic experience may not be able to recall the details of the accident. A witness who has a vested interest in the results of the investigation may offer biased testimony. Finally, eyesight, hearing, reaction time, and the general condition of each witness may affect his powers of observation. A witness may omit entire sequences because of a failure to observe them or because their importance was not realized.

Problem Solving Techniques

This section discusses two of the most common procedures for solving safety problems: Change Analysis and Job Safety Analysis.

● Change Analysis

As its name implies, this technique emphasizes change. To solve a problem, an investigator must look for deviations from the norm. Consider all problems to result from some unanticipated change.

Make an analysis of the change to determine its causes. Use the following steps in this method:

1. Define the problem (What happened?).
2. Establish the norm (What should have happened?).
3. Identify, locate, and describe the change (What, where, when, to what extent).
4. Specify what was and what was not affected.

5. Identify the distinctive features of the change.
6. List the possible causes.
7. Select the most likely causes.

● **Job Safety Analysis**

Job safety analysis (JSA) is part of many existing accident prevention programs. In general, JSA breaks a job into basic steps, and identifies the hazards associated with each step. The JSA also prescribes controls for each hazard. A JSA is a chart listing these steps, hazards, and controls.

Review the JSA during the investigation if a JSA has been conducted for the job; perform a JSA if one is not available as a part of the investigation to determine the events and conditions that led to the accident.

Investigation Report

Six key questions should be answered: who, what, when, where, why, and how. Fact should be distinguished from opinion, and both should be presented carefully and clearly. The report should include thorough interviews with everyone with any knowledge of the incident. A good investigation is likely to reveal several contributing factors, and it probably will recommend several preventive actions.

Avoid the trap of laying sole blame on the injured employee. Even if injured workers openly blame themselves for making a mistake or not following prescribed procedures, the accident investigator must not be satisfied that all contributing causes have been identified. The error made by the employee may not be even the most important contributing cause. The employee who has not followed prescribed procedures may have been encouraged directly or indirectly to "cut corners." The prescribed procedures may not be practical, or even safe, in the eyes of the employee(s). Sometimes where elaborate and difficult procedures are required, engineering redesign might be a better answer. In such cases, management errors – not employee error – may be the most important contributing causes.

In companies where a formal report is needed, the following outline has been found especially useful in developing the information to be included:

1. Background Information
 - a. Where and when the accident occurred
 - b. Who and what were involved

- c. Operating personnel and other witnesses
2. Account of the Accident (What happened?)
 - a. Sequence of events
 - b. Extent of damage
 - c. Accident type
 - d. Agency or source (of energy or hazardous material)
3. Discussion (Analysis of the Accident - HOW; WHY)
 - a. Direct causes (energy sources; hazardous materials)
 - b. Indirect causes (unsafe acts and conditions)
 - c. Basic causes (management policies; personal or environmental factors)
4. Recommendations (to prevent a recurrence) for immediate and long-range action to remedy:
 - a. Basic causes
 - b. Indirect causes
 - c. Direct causes (e.g., protective equipment or structures)

Implications of Accident Investigations

Recommended preventive actions should make it very difficult, if not impossible, for the incident to recur. The investigative report should list all the ways to "foolproof" the condition or activity. The primary purpose of accident investigations is to prevent future occurrences. Beyond this immediate purpose, the information obtained through the investigation should be used to update and revise the inventory of hazards, and/or the program for hazard prevention and control. For example, the Job Safety Analysis should be revised and employees retrained to the extent that it fully reflects the recommendations made by an incident report. Implications from the root causes of the accident need to be analyzed for their impact on all other operations and procedures.