

Accident Investigation Outline

1. Overview

- a. Definition of Terms
- b. Purpose of Incident Investigation
- c. Incident Investigation Preparation
- d. Visiting the Incident Scene
- e. Interview Witnesses
- f. Analyzing the Evidence
- g. Writing the Report
- h. Conclusion

2. Definition of Terms

- a. Accident – Any unforeseen event, which causes injury or property damage.
- b. Near Miss – Any unforeseen event that causes a disruption in the workflow, however it does not cause any injuries or property damage.
- c. For the purpose of this training an incident refers to both an accident and near miss

3. Purpose of Incident Investigation

- a. The prevention of another future incident is the purpose of incident investigation, not to lay blame or find who's at fault. The investigation should identify the causes of the incident so that controls can be put in place to prevent the same incident from happening again.
- b. The findings from the investigation should be recorded and kept on file however these findings should not be used to discipline anyone. This encourages individuals to report all incidents and it also encourages witnesses to tell investigators everything they know.
- c. Incident Facts
 - i. The majority of accidents are forecasted by near misses in the workplace.
 - ii. Incidents can be prevented by eliminating the causes
 - iii. By investigating all incidents you can eliminate the causes
 - iv. Unless causes are eliminated then the same incident will likely occur in the future.
- d. The incident investigation should
 - i. Determine what happened
 - ii. Determine the cause of the accident
 - iii. Identify corrective actions

4. Incident Investigation Preparation

- a. There should be very little time between the occurrence of the incident and the investigation. The preparation before an incident is necessary to make sure that all your resources are available at the time of the incident.
- b. Incident Investigation Team
 - i. Should include the following

1. Upper management
 2. Personnel from the area not involved in incident
 3. Maintenance supervisor
 4. Safety supervisor
 5. Supervisor from affected area
 6. Safety committee members
- c. Essential Investigation Equipment
- i. Writing pad & clipboard
 - ii. Tape measure – preferably 100'
 - iii. Digital Camera
 - iv. Graph Paper
 - v. Straight-edge ruler
 - vi. Pencils, pens
 - vii. Flashlight
 - viii. High visibility plastic tape
 - ix. Envelopes

5. Visiting the Incident Scene

- a. When it comes to incident investigation, speed is necessary to preserve evidence and record eyewitness accounts before they are forgotten.
- b. The following must be done in order when arriving at the scene:
 - i. Make sure the area is safe for you and others
 - ii. Ensure the injured personnel are properly cared for
 - iii. Ensure management is notified of the situation
 - iv. Secure the affected area
 - v. Identify potential sources of information such as witnesses, injured personnel, and any physical evidence.
 - vi. Sketch the scene
 1. Place important information in the center and draw relevant information around it.
 2. Measure the area
 3. Note the position of personnel and evidence
 - vii. Photograph the evidence
 1. Start by photographing the general area to get an idea of where the incident took place
 2. Then photograph the specific scene of the incident
 3. Take photos from all angles and viewpoints
 4. Use a straight edge ruler in some photos to give a better idea of the size of the evidence
 - viii. Collect any critical evidence that will have to be analyzed at a later date
 - ix. **AVOID JUMPING TO CONCLUSIONS!!!!!!!!!!**

6. Interviewing Witnesses

- a. Once the witnesses have been identified you need to separate them so that they don't lose their individual perceptions of the incident.

- b. Have each witness write out what they saw happen before, during and after the incident.
- c. Interview witnesses as soon as possible while the incident is still fresh in their minds.
- d. Categorize Witnesses
 - i. Eyewitness – those who actually saw the incident happen or were involved in the incident
 - ii. Personnel who came on the scene immediately after the incident
 - iii. Personnel who witnessed events leading up to the incident
 - iv. Personnel who have expertise in the work tasks that were being performed when the incident happened.
- e. Interviewing Witnesses
 - i. Put the witness at ease
 - 1. Let them know that your primary goal in conducting the investigation is to prevent the recurrence of the incident.
 - 2. Inform the witness that you are not there to get anyone in trouble or point fingers at the guilty parties.
 - 3. Choose a private location to conduct the interview
 - 4. Place yourself between the witness and the door. This eases the witnesses fears of feeling trapped
 - ii. Review their written statement with them and clear up any discrepancies. If possible show them photographs from the scene to help them remember pertinent information
 - iii. Use the W-5 method
 - 1. *WHAT* happened
 - 2. *WHO* was witnessed or was involved in the incident
 - 3. *WHERE* did the incident occur and where was the witness
 - 4. *WHEN* did the incident happen
 - 5. By answering the previous questions you are able to answer *WHY* and *HOW* the incident happen
 - iv. Use open ended questions, such as:
 - 1. Tell me what you saw?
 - 2. Tell me about...
 - 3. Explain how this job is done?
 - 4. Where were you at the time of the incident?
 - 5. Who else saw the incident?
 - v. Some common mistakes to avoid
 - 1. Do not ask leading questions (e.g. “Do you think that...”)
 - 2. Do not intimidate the witness (e.g. “That was a stupid way to do that job”)
 - 3. Note taking should not interfere with the interview process
 - 4. Do not interrupt the witness while they are talking

5. Do not use a tape recorder during the interview process. This usually makes the witness uncomfortable and they do not give as much information as freely.

7. Analyzing The Evidence

- a. Review standard operating procedures for the task that was being performed
 - i. Was the safe work procedure used?
 - ii. Were the appropriate tools used?
 - iii. Was the required PPE used?
 - iv. Were safety devices in place?
- b. Require that maintenance analyze any equipment that was involved and review equipment manuals.
 - i. Was there an equipment malfunction?
 - ii. What was the cause of the failure?
 - iii. Was the equipment being used correctly?
 - iv. Was the equipment modified in any way?
- c. Review witness statements and cross reference each of them to point out any discrepancies. If discrepancies are found then you will have to re-interview witnesses.
- d. Review photographs to paint a possible picture of what happened based on the witness statements.
- e. Review the training records of the workers involved in the incident.
 - i. Was the individuals properly trained?
 - ii. When did they last receive training?
 - iii. Who provided them with the training?
 - iv. What experience did the worker have?
- f. Review the environmental factors involved in the incident
 - i. Weather
 - ii. Time of Day
 - iii. Temperature
- g. Review whether or management had enforced the policies and the rules and whether management had provided a safe and healthful workplace.
- h. Above all, keep asking **WHY** until you come to the root cause of the incident

8. Writing the Report

- a. The intent of the incident report is to effect change so that the incident does not happen again in the future. This report should also be filed away for future reference.
- b. Report Format
 - i. Section I
 1. Who
 - a. Injured party
 - b. Witnesses
 2. Where
 - a. Location of incident

3. When
 - a. Date
 - b. Time
 - c. Work shift
- ii. Section II
 1. Description of the following:
 - a. What happened prior to the incident
 - b. What happened during the incident
 - c. What happened after the incident
- iii. Section III
 1. Findings
 - a. Direct cause – the act that directly caused the incident
 - b. Indirect cause – the root cause of the incident
- iv. Section IV
 1. Recommendations
 - a. Corrective Actions
 - i. Eliminate or reduce the hazardous conditions that directly caused the accident. Target date to be completed
 - b. System Improvements
 - i. To improve procedures and policies that indirectly caused the incident. Target date to be completed
- v. Section V
 1. Conclusion
 - a. Estimate cost of incident
 - b. Describe intended results and positive impact of suggested changes.
 - c. Date that corrective actions have been implemented and results of those actions. This is also the date that the report is closed.
- vi. Section VI
 1. Evidence
 - a. Photographs taken at the scene
 - b. Sketch of the scene
 - c. Witness statements
 - d. Investigation notes

9. Conclusion

- a. For the incident investigation to be effective, management must have a plan in place for implementing the corrective actions and making system improvements. Management must also periodically evaluate the quality of the incident investigation process to make sure that it is still an effective tool.