

# ACCIDENT AND INCIDENT INVESTIGATION

## Scope and Application

This procedure will lead the investigating group through the process of determining event sequence leading to the accident/incident (incident), identification of the root cause(s), and determining corrective action(s) to prevent the incident from recurring.

All incidents (any unwanted release of energy that resulted in or could have resulted in an accident) will be investigated. Investigation of near misses will also be conducted as they identify needed corrective actions to prevent accidents. The depth of the investigation using this procedure will vary with the circumstances of the incident.

## Implementation

Implementation of this program is the responsibility of the **Enter Position.**

**The Manager/Supervisor(s)** responsible for operations involved in the incident will ensure an investigation is conducted and appropriate corrective actions are taken. All personnel and parties designated by management or involved in the incident will participate and be cooperative in the investigation.

The Risk Management Center (RMC) resources to be used in implementation of this procedure are

- the Library,
- Incident Track,
- Task Track,
- Job Hazard Analysis (JHA)/ Safety Observations for review of the existence and/or adequacy of the existing JHAs, and creation or enhancement of JHAs based on corrective actions,
- Training Track for review of training history, and assigned trainings as corrective actions.

## Procedure

### 1.0 Background

- A. Thousands of incidents occur throughout the United States every day.
  1. The failure of people, equipment, supplies or surroundings to behave or react as expected causes most of these incidents.
  2. Incident investigations determine how and why these failures occur.
    - a) By using the information gained through an investigation, a similar or perhaps more disastrous incident may be prevented.
    - b) Conduct incident investigations with incident prevention in mind.
    - c) Investigations are NOT to place blame.

## ACCIDENT AND INCIDENT INVESTIGATION

- B. An incident is any unplanned event that results or could have resulted in either personal injury or in property damage.
  - 1. Investigate all near misses and incidents regardless of the extent of injury or damage.
    - a) All of these investigations provide critical information for the improvement of our risk management efforts.
- C. Incidents are usually complex.
  - 1. An incident may have ten or more events that can be causes.
    - a) At the lowest level, an incident 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 incident.
        - The direct cause is usually the result of one or more unsafe acts or conditions, or both.
      - Unsafe acts and conditions are *indirect causes* or symptoms.
      - Indirect causes are usually traceable to poor management policies and decisions, or to personal or environmental factors.
        - These are *basic causes*.
- D. Despite their complexity, most incidents are preventable by eliminating one or more causes.
  - 1. Incident investigations determine not only what happened, but also how and why.
    - a) The information gained from these investigations can prevent recurrence of similar or perhaps more disastrous incidents, personal harm, and save time and critical resources.

### 2.0 Training

- A. The Safety Committee team, and management are to complete Incident Investigation training and review this document.
  - 1. The RMC allows documents to be assigned and this is to be done for applicable staff and documented.
  - 2. Further, Incident Investigation training is to be documented in the RMC Training Track application and trainings are available for this training.

### 3.0 Reporting Requirements

- A. If someone is injured, or there is significant property damage or loss, it may be required to notify and involve a governmental jurisdiction and/ or your insurance company.
  - 1. The agency having jurisdiction over the location determines the administrative procedures.
  - 2. In general, responsible officials will appoint an individual to be in charge of the investigation.

## ACCIDENT AND INCIDENT INVESTIGATION

- B. For work related fatalities (if death occurs within 30 days of accident), or where three or more employees are admitted to the hospital, you must contact the State or Federal OSHA office based on your location to report within 8 hours of the work-related incident or accident.
  - 1. You must not move equipment involved in one of these work-related accidents or incidents.
  - 2. If you do not learn about the incident at the time it occurs, you must report the incident within 8 hours of the time it was reported to you, your agent, or employee.
  - 3. If one or more employees are hospitalized overnight, you must contact OSHA within 24 hours after occurrence or employer knowledge.
    - a) Note: overnight hospitalization for medical treatment only is not reportable, nor is emergency room treatment.
- C. Do not move the equipment until a representative of OSHA investigates the incident and releases the equipment unless directed by a recognized law enforcement agency, or if moving the equipment is necessary to remove any victims or prevent further incidents and injuries.
  - 1. You must investigate or cause to be investigated every lost-time injury that workers incur.

### 4.0 Investigative Procedures

- A. The Risk Management Center, Incident Track application contains a wizard for completing an incident report, with an investigation as well.
  - 1. Please use this application for all incidents, accidents or claims.
- B. The actual procedures used in a particular investigation depend on the nature and results of the incident. The investigator should use most of the following steps:
  - 1. Define the scope of the investigation.
  - 2. Protect the scene and victim's identity, privacy and rights as appropriate and required.
  - 3. Select the investigators. Assign specific tasks to each, in writing.
  - 4. Present a preliminary briefing to the investigating team, including:
  - 5. Description of the incident, with damage estimates.
  - 6. Normal operating procedures.
  - 7. Local and general maps.
  - 8. Location of the incident site.
  - 9. List of witnesses.
  - 10. Events that preceded the incident.
  - 11. Visit the incident site to get updated information.
  - 12. Inspect the incident site.
  - 13. Secure the area. Do not disturb the scene unless a hazard exists.
  - 14. Prepare the necessary sketches and photographs. Label each carefully and keep accurate records.

## ACCIDENT AND INCIDENT INVESTIGATION

- C. Interview each victim and witness.
  - 1. Also interview those who were present before the incident and those who arrived at the site shortly after the incident.
  - 2. Keep accurate records of each interview.
  - 3. Use a recording device.
  - 4. Determine:
    - a) What was not normal before the incident.
    - b) Where the abnormality occurred.
    - c) When it was first noted.
    - d) How it occurred.
- D. Analyze the data obtained in step C. Repeat any of the prior steps, if necessary.
  - 1. Determine:
    - a) Why the incident occurred.
    - b) A likely sequence of events and probable causes (direct, indirect, basic).
    - c) Alternative sequences.
      - The Incident Track application provides a wizard for identifying root causes.
  - 2. Check each sequence against the data from step C.
  - 3. Determine the most likely sequence of events and the most probable causes.
  - 4. Conduct a post-investigation briefing.
  - 5. Prepare a summary report, including the recommended actions to prevent a recurrence.
    - a) Distribute the report according to applicable instructions.
- E. Fact-finding
  - 1. Gather evidence from many sources during an investigation.
    - a) Get information from witnesses and reports as well as by observation.
    - b) Interview witnesses as soon as possible after an incident.
  - 2. Inspect the incident site before any changes occur.
    - a) Take photographs and make sketches of the incident scene.
    - b) Record all pertinent data on maps.
  - 3. Get copies of all reports.
    - a) Documents containing normal operating procedures, flow diagrams, maintenance charts, or reports of difficulties or abnormalities are particularly useful.
  - 4. Keep complete and accurate notes in a bound notebook.
    - a) Record pre-incident conditions, the incident sequence, and post-incident conditions.
    - b) Document the location of victims, witnesses, machinery, energy sources and hazardous materials.
    - c) In some investigations, a particular physical or chemical law, principle, or property may explain a sequence of events.
      - Include this information in the notes taken during the investigation or in the later analysis of data.

## ACCIDENT AND INCIDENT INVESTIGATION

- d) In addition, gather data during the investigation that may lend itself to analysis by these laws, principles, or properties.
  - e) An appendix in the final report can include an extended discussion.
- F. Interviews
- 1. In general, experienced personnel should conduct interviews.
  - 2. As needed, the team assigned to this task may include an individual from a governmental jurisdiction and/ or your insurance company, and an individual with a legal background.
  - 3. In conducting interviews, the team should:
    - a) Appoint a speaker for the group.
    - b) Get preliminary statements as soon as possible from all witnesses.
    - c) Locate the position of each witness on a master chart (including the direction of view).
    - d) Arrange for a convenient time and place to talk to each witness.
    - e) Explain the purpose of the investigation (incident prevention) and put each witness at ease.
    - f) Listen, let each witness speak freely, and be courteous and considerate.
    - g) Take notes without distracting the witness.
      - Use a tape recorder only with consent of the witness.
    - h) Use sketches and diagrams to help the witness.
    - i) Emphasize areas of direct observation.
      - Label hearsay accordingly.
    - j) Be sincere, and do not argue with the witness.
    - k) Record the exact words used by the witness to describe each observation.
      - Do not "put words into a witness' mouth."
    - l) Word each question carefully, and be sure the witness understands the question.
    - m) Identify the qualifications of each witness (name, address, occupation, years of experience, etc.)
    - n) Supply each witness with a copy of his or her statements.
      - Signed statements are desirable.
  - 4. After interviewing all witnesses, the team should analyze each witness' statement.
    - a) They may wish to re-interview one or more witnesses to confirm or clarify key points.
    - b) While there may be inconsistencies in witnesses' statements, investigators should assemble the available testimony into a logical order.
    - c) Analyze this information along with data from the incident site.
    - d) Not all people react in the same manner to a particular stimulus.
      - A witness within close proximity to the incident may have an entirely different story from one who saw it at a distance.

## ACCIDENT AND INCIDENT INVESTIGATION

- 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 incident.
- A witness who has a vested interest in the results of the investigation may offer biased testimony.
- Eyesight, hearing, reaction time, and the general condition of each witness may affect his or her powers of observation.
  - A witness may omit entire sequences because of a failure to observe them or because their importance was not realized.

### G. Corrective actions

1. Incidents represent problems that must be solved through investigation.
2. The Risk Management Center, Incident Track application contains a wizard for completing an incident report, with an investigation, as well as noting corrective actions to address each root cause.
  - a) Please use this application for all incidents, accidents or claims.
  - b) Further, trending analyses can be done through the Incident Tracking application to note any recurring events to correct.
    - Note all corrective actions, who is responsible, and due dates for the actions to be implemented.
    - Establish an audit process to assure the control is effective.
3. Job Safety Analyses (JSAs) are also an important aspect in Incident Investigation.
  - a) A JSA breaks a job into basic steps, and identifies for those steps the hazards and needed controls to prevent injury.
  - b) If a JSA has been prepared for the task or position associated with the incident, review the JSA during the investigation to assure it is comprehensive and accurate.
  - c) Also review the training of applicable staff using the JSA, and Safety Observations that should have been done to assure the controls outlined on the JSA are followed.
    - Modify the JSA, training and observation process as needed focused on full awareness of all applicable staff and management.

## 5.0 Documentation Summary

- A. An incident investigation is not complete until a report is prepared and submitted to proper management, reviewed with applicable staff, and as necessary, authorities.
  1. Special report forms are available in the Incident Track and Risk Management Center for various types of incidents.
    - a) Incident Track can be set to report to multiple staff and insurers as needed.

## ACCIDENT AND INCIDENT INVESTIGATION

- b) All incident reports are to be retained in the Incident Track application and Trending Analyses performed to focus applicable staff and management on problematic areas.
  - c) All corrective actions are to be tracked until completed with full documentation to the Incident Track application.
  - d) The RMC allows documents to be assigned.
    - This policy is to be assigned to all management and Safety Committee staff, and documented.
    - Further, Incident Investigation training is to be documented in the RMC Training Track application.
- B. The Risk Management Center is to be used to document all information including the following:

Documents	Risk Management Center location
Written Program	My Content
Training Documentation including: <ul style="list-style-type: none"><li>- Classroom training and training completed</li><li>- sign-in sheets</li><li>- Quizzes</li><li>- Skills evaluations</li><li>- Certificates</li></ul>	Training Track application
Audit or Inspection Checklists	My Content
Safety Observations	Job Hazard Analysis: Safety observation tool
Near misses	Incident Track
Accidents and claims	Incident Track
Supplier and manufacturer COIs	COI Track
Material Safety Data Sheets for chemical supplies	MSDS Track