**Objective:** To guide the investigation group through the process of investigating incidents, including gathering information about the incident, identifying root causes, and determining corrective actions to prevent the incident from recurring

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**Introduction**

The practice of investigating and analyzing all incidents and near misses, no matter how minor, is vital for the safety and well-being of everyone in the organization.

**The benefits include:**

* Identifying unsafe conditions and behaviors that need to be corrected.
* Identifying needed organizational changes.
* Reducing the likelihood of future incidents, saving lives and money.

The goal of an incident investigation is **not to place blame**, but rather to determine the **root causes** of the incident and make changes that prevent similar incidents from recurring.

**Key terms:**

* **Incident:** An event that causes injury or death to people or damage to property
* **Near miss:** An event that **almost** results in injury, death, or damage and also is a warning sign that an incident is likely to occur
* **Direct cause:** The most obvious reason that an incident occurred when the circumstances of the incident are considered
* **Root cause:** A factor that underlies the other contributing causes and could eliminate recurrence of the problem if it is addressed
* **Unsafe acts:** Activities that create or increase the risk of injury or property damage, such as the bypassing or disabling of safety devices
* **Unsafe conditions:** When features of the worksite create or increase the risk of injury or property damage, such as slick walking surfaces or heights

**Responsibilities**

**Plan Administrator:**

**[Responsible Person]** shall administrate the Incident Investigation Plan for **[Organization Name].** The Plan Administrator is responsible for the following tasks:

* + Assuring that all incidents and near misses are properly documented and reported
	+ Communicating with OSHA as needed
	+ Assembling the incident investigation team
* Include both management and employees.
* The team should include or have access to technical expertise in safety, engineering, operations, or any other subjects that might be helpful.
* Assign roles to each member in writing (such as who conducts interviews).
* Some members may be permanent team members who can immediately respond when an incident occurs. However, members may need to be added or changed based on the nature of the incident after it occurs.
	+ Assuring that management, supervisors, and incident investigation team members are trained in this policy and training is documented
* The RMC’s Training Track allows documents to be assigned and training to be tracked.
	+ Reviewing this policy at least once a year and updating it as needed

**Incident investigation team:**

The incident investigation team are responsible for the following:

* Following this policy while conducting investigations
* Documenting investigations and reporting to the Plan Administrator

**Supervisors:**

Supervisors are responsible for cooperating with the investigation as needed, notifying the Plan Administrator of an incident or near miss, and assuring that corrective actions are put into place.

**Employees:**

Employees are responsible for cooperating with the investigation as needed, and immediately notifying supervisors of unsafe work conditions, potential hazards, incidents, or near misses.

**Overview of Steps**

All incidents and near misses will be investigated, no matter how minor.

While the scale of the investigation varies according to the circumstances of the incident or near miss, the following basic stages will always occur:

1. Control hazards and address any safety and health concerns.
2. Start preserving evidence as soon as possible.
3. Gather information.
4. Conduct interviews.
5. Analyze the data.
6. Suggest corrective actions.

**Safety and Health Concerns**

**Immediately following an incident:**

* **Check the scene for hazards** to yourself and others.
* If you can do so safely and if necessary, **control hazards or remove people from hazards.**
* **Respond to medical needs:** if necessary, summon helpby calling emergency medical services (EMS) and/or provide first aid to the level you are trained.
* **Secure the area** if necessary to prevent further injury or disruption of evidence.
* **Contact the appropriate personnel,** such as supervisors, management, or appropriate agencies, after injured parties are medically stable.
* **Do not disturb the scene** unless a hazard exists.

**Note:** If this is a **reportable incident,** the scene must be left as is, not only for the internal investigation but also for OSHA’s investigation. OSHA notification is not required for property damage or minor injuries.

**Preserving Evidence**

* Inspect the incident site as soon as possible before any changes occur.
* Photograph details of the scene before removing any evidence.
* Take measures to isolate any evidence that may not be removed from the scene (e.g., damaged heavy machinery).
* Label evidence carefully and keep accurate records.
* Make sketches of the incident scene.

**Gathering Information**

**Sources:**

* Collect as much data as possible by interviewing personnel involved in the incident (covered in the next section) and documenting the entire incident site. The more information you have, the easier it will be to see the big picture.
* In addition, gather the following information if relevant (and make copies of documents):
* Company policies and normal operating procedures
* Flow diagrams or maintenance charts
* Pertinent maps
* Any photographs or video of the scene
* Reports, especially reports of difficulties or abnormalities

**Questions to answer:**

* What happened? How? Where was the incident located? When did it occur?
* Who was involved and who was a witness? (Get a full witness list.)
* What events immediately preceded the incident?
* Was there anything out of the ordinary right before the incident? If yes, how so, when, and where?
* Were normal operating procedures being followed? (What are normal operating procedures?)
* What is the estimated damage?

**Documentation:**

* Keep complete and accurate notes in a bound notebook.
* Record pre-incident conditions, the incident sequence, and post-incident conditions.
* 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. Include this information 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.

**Note:** Protect the victim’s identity, privacy, and rights as appropriate and required.

**Conducting Interviews**

**The interviewers:**

The **[Plan Administrator]** shall appoint a person or persons in the incident investigation team to conduct interviews. They should be experienced.

As needed, the team assigned to this task may include an individual who is from a governmental jurisdiction, who is with the organization’s insurance company, or who has a legal background.

**Who should be interviewed?**

* Everyone involved in the incident, including victims
* Witnesses of the incident
* People who were present before the incident
* People who arrived at the site shortly after the incident

**Working with witnesses:**

Interviewers are responsible for the following:

* Arrange for a convenient time and place to talk to each witness, but conduct interviews as soon as is possible.
* If possible, conduct interviews close to the scene of the incident.
* Conduct interviews in private.
* Plan the questions ahead of time, but allow the subject’s answers to guide what is asked next.
* Explain the purpose of the investigation, and put the witness at ease. (Assure the witness that the goal is not casting blame but preventing future incidents.)
* Ask open-ended questions, allowing the witness to tell the story in their own words. Do not ask leading questions.
* Be sure the witness understands the question.
* Do not interrupt, argue, or try to assist with an answer. Listen courteously and let each witness speak freely.
* Do not make assumptions about what you expect the answers to be: keep an open mind and do not jump to conclusions.
* **After you have gotten unassisted answers** from the witness, you can show them sketches and diagrams and get their feedback on these documents.

**Recordkeeping:**

Interviewers are responsible to do the following:

* Get preliminary statements as soon as possible from all witnesses.
* Identify the qualifications of each witness (name, address, occupation, years of experience, etc.)
* Record the exact words used by the witness to describe each observation.
* Use a recording device, but only with the consent of the witness.
* Take notes without distracting the witness.
* Keep accurate records of each interview.
* Note what information was directly observed and what is hearsay.

**After the interview:**

* Ask witnesses to sign their statements for the record.
* Supply each witness with a copy of his or her statement.
* Locate the position of each witness on a master chart (including the direction of view).

**After interviewing all witnesses:**

* The team will analyze all statements. (Analysis is covered further in the next section.)
* They may wish to re-interview one or more witnesses to confirm or clarify key points.
* While there may be inconsistencies in witnesses' statements, the team should assemble the available testimony into a logical order.

**Considering inconsistencies:**

There are many potential reasons for inconsistencies.

* Witnesses may remember different information due to how they perceive:
* A witness may omit entire sequences because of a failure to observe them or because their importance was not realized.
* A witness who has had a traumatic experience may not be able to recall certain details.
* A witness within close proximity to the incident may have a different perspective from one who saw it at a distance.
* Physical traits such as eyesight, hearing, and reaction time can affect powers of observation.
* Some witnesses may also change their stories after they have discussed it with others. This one reason why immediate interviews are so important and why questions should be as impartial as possible.
* A witness who has a vested interest in the results of the investigation may offer biased testimony.

While inconsistences are not always important, they could potentially give clues about areas that require further investigation.

**The Analysis**

* Piece together a likely sequence of events.
* Determine the various causes.
* Then, look for **root causes**. A root cause is a factor that underlies other contributing causes and could eliminate recurrence of the problem if it is addressed.
* Rather than just focusing on the actions of the people involved in the incident, try to consider the organization as a whole and whether there are any weaknesses in the current procedures that may have contributed to the incident.
* Using multiple methods of data analysis can help uncover root causes that may have been missed using only one.
* **Ishikawa (fishbone) diagrams** help to identify potential factors that may have contributed to the incident.
* The **Why method** allows you to drill down to more specific root causes by continuing to ask why each contributing factor has occurred.

**Avoid making these assumptions:**

* There can only be one true cause and solution for the accident.
* Incidents only occur when rules are broken.
* Someone must be held accountable.
* Given the same set of facts, everyone will come to the same conclusion.

The Incident Track application provides a wizard for identifying root causes.

**Corrective Actions**

Once all root causes of the incident have been determined, recommend corrective actions that can help minimize or eliminate the chances of reoccurrence.

* Be specific in your instructions for what each action entails and how it should be implemented.
* Keep your recommendations constructive and objective.
* Clearly point out instances where human error is a cause, but avoid recommending disciplinary actions, which should be handled by Human Resources.
* Consider whether the Job Safety Analyses (JSAs), training for staff, and safety observations need to be updated due to new controls or concerns that have surfaced during the investigation.

Next, outline a follow-up plan to assure that actions are implemented correctly and work as planned.

* Specify the responsible parties for implementation and for assuring the effectiveness of the corrections.
* Include due dates for the actions to be implemented.
* All corrective actions are to be tracked and documented until implemented.
* The Incident Track application can used for these processes.
* Set up an audit process. If hazards or risks are not corrected, review the prescribed corrective actions to assure that everything has been implemented as planned and revise the actions as necessary to address any remaining issues.
* Once the issues have been verified as adequately resolved, share your results with other departments that may be subject to similar issues.

**Reporting Requirements**

* Conduct a post-investigation briefing.
* Prepare a summary report, including the recommended actions to prevent a recurrence. Distribute the report.
* An incident investigation is not complete until a report is prepared and submitted to proper management, reviewed with applicable staff, and as necessary, authorities.

**Reporting to OSHA:**

* OSHA notification is not required for property damage or minor injuries.
* Accidents and incidents must be reported to the appropriate State or Federal OSHA office in a timely manner. Your location determines the appropriate office to contact.
* Work-related fatalities (if death occurs within 30 days of the incident) must be reported within 8 hours of being notified of the fatality.
* Work-related incidents resulting in any inpatient hospitalization, amputation, or eye loss (if occurring within 24 hours of the incident) must be reported within 24 hours of being notified of the incident.
* Inpatient hospitalization for diagnostic testing or observation only is not reportable.
* You must investigate or initiate an investigation on every lost-time injury that workers incur.

**OSHA investigations:**

* 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.
* The agency with jurisdiction over the location determines the administrative procedures.
* Responsible officials will often appoint an individual to be in charge of the investigation.
* 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 victims or prevent further incidents and injuries.

**The incident report wizard:**

The RMC’s Incident Track application contains a wizard for completing an incident report. It includes:

* Documentation for the investigation, root causes, and corrective actions.
* Special report forms for various types of incidents and claims.
* Trending analyses that notes any recurring events to correct.
* Reporting to multiple staff and insurers as needed

Retain all incident reports in the Incident Track application and use them to perform trending analysis and to focus on problematic areas.

The Risk Management Center is to be used to document all information including the following:

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| --- | --- |
| **Documents** | **Risk Management Center Location** |
| Written Accident and Incident Investigation Program  | My ContentTM |
| Training Documentation including: - Classroom training and training course completed- Sign-in sheets- Quizzes- Skills evaluations- Operator Certificates | Training TrackTM application |
| Pre-shift Inspection Checklists | My ContentTM |
| Safety Observations | Job Hazard Analysis/ Safety Observation ToolTM |
| Near misses | Incident TrackTM |
| Accidents and claims | Incident TrackTM |
| Supplier and manufacturer Certificates of Insurance | COI TrackTM |
| Safety Data Sheets | SDS TrackTM |