Chapter 4

Tim Foster - dba MPC (Maintenance Projects & Construction)

Accident Investigation Policy

Tim Foster - dba MPC (Maintenance Projects & Construction) is committed to investigating all accidents/incidents.

Tim Foster is responsible for ensuring that accident investigation policy is followed. Accidents and near miss incidents that result in personal injury, property damage, chemical spill, or other emergency situations will be immediately reported to the assigned supervisor at the time of the event and Emergency Medical Service, Fire Department, or Hazmat Services will be immediately summoned. Such events shall be investigated and documented on the appropriate Company form. All forms will be fully completed and submitted to Tim Foster for review and for discussion at the next scheduled Safety Committee meeting. These investigations demonstrate The Company's commitment to providing a safe and healthful work environment. Disciplinary Policy will be enforced.

Tim Foster - dba MPC (Maintenance Projects & Construction) will thoroughly investigate all lost-time injuries. Fatalities and catastrophes must be reported to OSHA within 8 hours. Serious accidents must be reported within 24 hours.

Employees are often reluctant to report an accident because of fear, peer pressure, or concern that it may affect their job in some one way. To ensure that accidents will be reported, employees must be encouraged to participate in the “fact-finding” process. The point emphasized must be that “hazardous conditions” and “unsafe practices” are an indication of a much bigger problem with a breakdown in the safety and health policy. The purpose of the accident investigation then becomes one that will uncover these system problems and provide solutions that will result in long term corrective action.

It is important to gather facts and interview witnesses as soon as possible after an accident to ensure the most accurate information is being recorded. The efficiency of the corrective measures is determined by the accuracy of the information gathered. The best place to conduct an interview is wherever the employee being interviewed feels most comfortable. The most important interviewing technique you can use to ensure accuracy is to "listen".

Note: Consider the event a “serious accident” if an employee is admitted to a hospital for treatment or observation as a result of injuries suffered from a workplace accident.

Accident Causes

Accidents occur when hazards escape detection during preventive measures, such as a job or process safety assessment, when hazards are not obvious, or as the result of combinations of circumstances that were difficult to foresee. A thorough accident investigation may identify previously overlooked physical, environmental, or process hazards, the need for new or more extensive safety training, or unsafe work practices.

The primary focus of any accident investigation should be the determination of the facts surrounding the incident and the lessons that can be learned to prevent future similar occurrences. The focus of the investigation should NEVER be to place blame. The process should be positive and thought of as an opportunity for improvement.
Most accidents in the workplace result from unsafe work behaviors. According to the latest research, they represent the direct cause of about 95% of all workplace accidents. Hazardous conditions represent the direct cause for only about 3% of workplace accidents. "Acts of God" account for the remaining 2%. All these statistics imply that management system weaknesses account for fully 98% of all workplace accidents. Effective accident investigation identifies these root causes and recommends strategies to eliminate management system weaknesses.

When Accident Investigations are Required

As a general rule, investigations should be conducted for:

- All injuries (even the very minor ones).
- All accidents with potential for injury.
- Property and/or product damage situations.
- All "Near Misses" where there was potential for serious injury.

Near miss and incident 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 hazards where controls were defeated. However, it is important to remember that the investigation is only useful when its objective is to identify root causes. In other words, every contributing factor to the incident must be uncovered and recommendations made to prevent recurrence.

Tim Foster - dba MPC (Maintenance Projects & Construction) Accident Investigation Plan

When a serious accident occurs in the workplace, everyone will be too busy dealing with the emergency at hand to worry about putting together an investigation plan, so the best time to develop effective accident investigation procedures is before the accident occurs.

The plan includes procedures that determine:

- Who should be notified of accident?
- Who is authorized to notify outside agencies? (fire, police, etc.)
- Who is assigned to conduct investigations?
- Training required for accident investigators:
- Who receives and acts on investigation reports?
- Timetables for conducting hazard correction.

Secure the Accident Scene

For a serious accident, the first action the accident team will take is to secure the accident scene so material evidence is not moved or removed. Material evidence has a tendency to walk off after an accident. If the accident is quite serious, OSHA may inspect and require that all material evidence be marked and remain at the scene of the accident.

Gather Information

The next step is to gather useful information about what directly and indirectly contributed to the accident. The following tools will be used to gather as much information as possible:

- Interview eye witnesses as soon as possible after the accident. Interview witnesses separately, never as a group.
- Interview other interested persons such as supervisors, co-workers, etc.
• Review related records such as:
  • Training records
  • Disciplinary records
  • Medical records
    (as allowed)
  • Maintenance records
  • OSHA 300 Log
    (past similar injuries)
  • Safety Committee records
• Document the scene with photographs, videotape, or sketches AND appropriate measurements.

**Develop a Sequence of Events**

Use the information gathered to develop a detailed step by step description of the accident. Make sure the accident is documented in enough detail to enable an individual unfamiliar with the situation to envision the sequence of events. Do not just describe the accident itself; include a description of events that led up to the accident.

**Analyze the Accident**

The next step is to determine the cause(s) of the accident. This is the most difficult step because first the events must be analyzed to discover surface cause(s) for the accident, and then, by asking “why” a number of times, the related root causes are uncovered. Remember, surface causes are usually pretty obvious and not too difficult to determine. However, it may take a great deal more time to accurately determine the weaknesses in the management system, or root causes, that contributed to the conditions and practices associated with the accident.

**More on surface causes:**

The surface causes of accidents are those hazardous conditions and individual unsafe employee/manager behaviors that have directly caused or contributed in some way to the accident.

**Hazardous conditions may exist in any of the following categories:**

* Materials  
* Tools  
* Environment  
* People  
* Machinery  
* Chemicals  
* Workstations  
* Workload  
* Equipment  
* Facilities

It is important to know that most hazardous conditions in the workplace are the result of unsafe behaviors that produced them. Individual unsafe behaviors may occur at any level of the organization.

**Some example of unsafe employee/manager behaviors include:**

* Failing to comply with rules  
* Using unsafe methods  
* Taking shortcuts  
* Horseplay  
* Failing to report injuries  
* Failing to report hazards  
* Allowing unsafe behaviors  
* Failing to train  
* Failing to supervise  
* Failing to correct  
* Scheduling too much work  
* Ignoring worker stress

**More on root causes:**

The root causes for accidents are the underlying system weaknesses that have somehow contributed to the existence of hazardous conditions and unsafe behaviors that represent surfaces causes of accidents.
Root causes always pre-exist surface causes. Inadequately designed system components have the potential to feed and nurture hazardous conditions and unsafe behaviors. If root causes are left unchecked, surface causes will flourish!

**Root causes may be separated into two categories:**

- **System design weaknesses** — Missing or inadequately designed policies, programs, plans, processes, and procedures will affect conditions and practices generally throughout the workplace. Defects in system design represent hazardous system conditions.

- **System implementation weaknesses** — Failures to initiate, carry out, or accomplish safety policies, programs, plans, processes, and procedures. Defects in implementation represent ineffective management behavior.

**System Design Weaknesses**
- Missing or inadequate safety policies/rules
- Training program not in place
- Poorly written plans
- Inadequate process
- No procedures in place

**System Implementation Weaknesses**
- Safety policies/rules are not being enforced
- Safety training is not being conducted
- Adequate supervision is not conducted
- Incident/Accident analysis is inconsistent
- Lockout/Tagout procedures are not reviewed annually

**Developing Preventive Actions**

This is the most important piece of any investigation. All of the work done to this point culminates with recommendations to prevent similar accidents from happening in the future. Recommendations should relate directly to the surface and root causes of the accident. These recommendations will include preventive actions such as:

- Engineering controls (for example, local exhaust ventilation or use of a lift assisting device).
- Work practice controls (for example, pre-plan work, and remove jewelry and loose fitting clothing before operating machinery).
- Administrative controls (e.g., standard operating procedures or worker rotation).
- Personal protective equipment (for example, safety glasses or respirators).

It is crucial that, after making recommendations to eliminate or reduce the surface causes, that the same procedure is used to recommend actions to correct the root causes. If root causes are not corrected, it is only a matter of time before a similar accident occurs.

**In Summary**

A successful accident investigation determines not only what happened, but also finds how and why the accident occurred. Investigations are crucial as an effort to prevent a similar or perhaps more disastrous sequence of events. Research has shown that a typical accident is the result of many related and unrelated factors that somehow all come together at the same time. It is estimated that there are usually more than ten factors that contribute to a serious accident. Although, this combination of factors normally makes an investigation very time consuming and resource intensive, the good news is that the accident can normally be prevented by removing only a few of the contributing factors. Following is the required Company accident/incident investigation form needed to determine surface and root causes as well as track progress on preventative actions.
<table>
<thead>
<tr>
<th>Date of Accident</th>
<th>Time</th>
<th>Day of Week</th>
<th>Shift</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INJURED PERSON**

- **Name:**
- **Address:**
- **Age:**
- **Phone:**
- **Job Title:**
- **Supervisor Name:**
- **Length of Employment at Company:**
- **Length of Employment at Job:**

**Employee Classification:**
- [ ] Full Time
- [ ] Part Time
- [ ] Contract
- [ ] Temporary

**Nature of Injury**
- [ ] Bruising
- [ ] Dislocation
- [ ] Other (specify)
- [ ] Injured Body Part:
- [ ] Strain/Sprain
- [ ] Scratch/Abrasion
- [ ] Internal
- [ ] Fracture
- [ ] Amputation
- [ ] Foreign Body
- **Remarks:**

**Treatment**
- [ ] First Aid
- [ ] Emergency Room
- [ ] Dr.'s Office
- [ ] Hospitalization

**INJURED PERSON**

- **Name:**
- **Address:**
- **Age:**
- **Phone:**
- **Job Title:**
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- **Length of Employment at Company:**
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- [ ] Fracture
- [ ] Amputation
- [ ] Foreign Body
- **Remarks:**

**Treatment**
- [ ] First Aid
- [ ] Emergency Room
- [ ] Dr.'s Office
- [ ] Hospitalization

**DAMAGED PROPERTY**

- **Property, Equipment, or Material Damaged**
- **Describe Damage**
- **Object or Substance Inflicting Damage:**

**INCIDENT DESCRIPTION**

- **Describe what happened (attach photographs or diagrams if necessary)**

**ROOT CAUSE ANALYSIS** (Check All that Apply)

<table>
<thead>
<tr>
<th>Unsafe Acts</th>
<th>Unsafe Conditions</th>
<th>Management Deficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Improper work technique</td>
<td>[ ] Poor workstation design/layout</td>
<td>[ ] Lack of written policies &amp; procedures</td>
</tr>
<tr>
<td>[ ] Safety rule violation</td>
<td>[ ] Congested work area</td>
<td>[ ] Safety rules not enforced</td>
</tr>
<tr>
<td>[ ] Improper PPE or PPE not used</td>
<td>[ ] Hazardous substances</td>
<td>[ ] Hazards not identified</td>
</tr>
<tr>
<td>[ ] Operating without authority</td>
<td>[ ] Fire or explosion hazard</td>
<td>[ ] PPE unavailable</td>
</tr>
<tr>
<td>[ ] Failure to warn or secure</td>
<td>[ ] Inadequate ventilation</td>
<td>[ ] Insufficient worker training</td>
</tr>
<tr>
<td>[ ] Operating at improper speeds</td>
<td>[ ] Improper material storage</td>
<td>[ ] Insufficient supervisor training</td>
</tr>
<tr>
<td>[ ] By-passing safety devices</td>
<td>[ ] Improper tool or equipment</td>
<td>[ ] Improper maintenance</td>
</tr>
<tr>
<td>[ ] Guards not used</td>
<td>[ ] Insufficient knowledge of job</td>
<td>[ ] Inadequate supervision</td>
</tr>
<tr>
<td>[ ] Improper loading or placement</td>
<td>[ ] Slippery conditions</td>
<td>[ ] Inadequate job planning</td>
</tr>
<tr>
<td>[ ] Improper lifting</td>
<td>[ ] Poor housekeeping</td>
<td>[ ] Inadequate hiring practices</td>
</tr>
<tr>
<td>[ ] Servicing machinery in motion</td>
<td>[ ] Excessive noise</td>
<td>[ ] Inadequate workplace inspection</td>
</tr>
<tr>
<td>[ ] Horseplay</td>
<td>[ ] Inadequate hazards guarding</td>
<td>[ ] Inadequate equipment</td>
</tr>
<tr>
<td>[ ] Drug or alcohol use</td>
<td>[ ] Defective tools/equipment</td>
<td>[ ] Unsafe design or construction</td>
</tr>
<tr>
<td>[ ] Unnecessary haste</td>
<td>[ ] Insufficient lighting</td>
<td>[ ] Unrealistic scheduling</td>
</tr>
<tr>
<td>[ ] Unsafe act of others</td>
<td>[ ] Inadequate fall protection</td>
<td>[ ] Poor process design</td>
</tr>
<tr>
<td>[ ] Other:</td>
<td>[ ] Other:</td>
<td>[ ] Other:</td>
</tr>
</tbody>
</table>
Using the root cause analysis list on the previous page, explain the cause(s) of the incident in as much detail as possible.

<table>
<thead>
<tr>
<th>How bad could the accident have been?</th>
<th>What is the chance of the accident happening again?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Very Serious □ Serious □ Minor</td>
<td>□ Frequent □ Occasional □ Rare</td>
</tr>
</tbody>
</table>

**PREVENTIVE ACTIONS**

Describe actions that will be taken to prevent recurrence:

<table>
<thead>
<tr>
<th>Deadline</th>
<th>By Whom</th>
<th>Complete</th>
</tr>
</thead>
</table>

**INVESTIGATION TEAM**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Position</th>
</tr>
</thead>
</table>