**OVERVIEW (WMI Facility)**

(1) Provide medical and other safety and health assistance to personnel.

(2) Bring the accident under control.

(3) Report the accident within 1 hour to the Safety Director or Project Manager and follow their instructions.

(4) The Safety Director (Team Leader) will notify/select and meet with the Accident Investigation Team ASAP.

(5) The Team will determine the extent of the accident and determine the investigation

 process for the severity of the accident.

(6) The Team leader will assign tasks to be completed by each member of the team.

**OVERVIEW (Job Sites)**

(1) Contact medical and other safety and health assistance to personnel.

(2) Help bring the accident under control, only if not to endanger yourself or others.

(3) Report the accident within 1 hour to the Safety Director or Project Manager. In addition, the host must be notified immediately of the incident and required incidents must be verbally reported to OSHA within eight hours.

(4) If you are asked by the job site customer to serve on an Accident Investigation Team. You must report to your Project Manager or WMI Safety Director for approval.

(5) If approved to participate, follow directions given by the Customer Accident Investigation Team Leader.

**PURPOSE:**

The purpose of investigating serious accidents and near-misses is to understand what happened (or could have happened) and then to prevent any recurrence of similar accidents, thereby improving the safety of the process.

**SCOPE:**

A formal Accident Investigation shall be performed any time there is an accident which resulted in a catastrophic release of hazardous material, property damage, injury, or death. For the purposes of this program, a catastrophic release is defined as a major uncontrolled emission, fire, or explosion involving a hazardous substance that presents serious danger to employees, the employees of contractors working on-site, or to off-site neighbors.

**FORMS:**

**APPENDIX 1A ACCIDENT INVESTIGATION ACCIDENT FORM**

**APPENDIX 1B ACCIDENT INVESTIGATION CLOSE-OUT FORM**

**APPENDIX 1C ACCIDENT INVESTIGATION LOG**

**APPENDIX 1D FIRST REPORT OF INJURY (INDIANA)**

**APPENDIX 1E FIRST REPORT OF INJURY (OHIO)**

The following is a list of the criteria that will be used to determine whether an accident should be reported. An accident meeting any one of the criteria shall be determined by the Safety Director if an investigation is needed.

**Quantity of Hazardous Material Spilled or Released:** All Accidents involving Hazardous Chemicals will be reported to the Safety Director or Project Manager.

**Property Damage:** All Accidents involving property damage will be reported to the Safety Director or Project Manager, regardless of dollar value.

**Fire or Explosion:** Any reported fire or explosion involving hazardous chemicals will be reported to Safety Director or Project Manager.

**Injuries or Deaths:** All injury and death Accidents will be reported to Safety Director or Project Manager.

**REFERENCES:**

A) 29 CFR 1910.119 Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents, Paragraph (m).

B) 29 CFR 1904.8 Reporting of Fatality or Multiple Hospitalization Accidents.

C) 40 CFR Part 68 Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7), Paragraph 68.81 Accident Investigation.

(D) 29 CFR Part1926--Safety and Health Regulations for Construction

**PROCEDURES:**

The Accident investigation procedures that shall be followed can be outlined by the following major steps:

 **1.0 INITIAL ACCIDENT RESPONSE**

 **2.0 ESTABLISH INVESTIGATION TEAM**

 **3.0 DETERMINE THE FACTS**

 **4.0 DETERMINE THE CAUSE**

 **5.0 RECOMMEND CORRECTIVE AND PREVENTIVE ACTIONS**

 **6.0 COMMUNICATE RESULTS/FOLLOW-UP**

Specific procedures to be followed within each of these major steps are provided.

**1.0 INITIAL ACCIDENT RESPONSE**

1.1 The relative priority of response to a serious accident shall be:

1.1.1 Providing medical and other safety and health assistance to personnel;

1.1.2 Bringing the accident under control; and,

1.1.3 Report the accident within 1 hour to the Safety Director or Project Manager.

1.1.4 Directing activities related to the investigation in a way that preserves relevant information and evidence.

1.2 Activities to preserve information shall include:

1.2.1 Securing and barricading the scene when appropriate,

1.2.2 Initiating the collection of transient information,

1.2.3 Preliminary interviewing of witnesses and personnel, etc.

1.3 A key element of this phase of the process is to get an accurate list of witnesses of all kinds that will need to be interviewed in greater detail by the investigation team. Another important part of the initial response is to take photographs which may prove useful as the investigation continues. This is critical if the scene must be disturbed before the investigation team can complete its review.

1.4 Responsibility for this early phase of Accident response should rest with the Safety Director or his designee. The only time the Safety Director will not lead an Accident Investigation is when the Safety Director is unavailable. (Vacation, sick, etc.)

**2.0 ACCIDENT INVESTIGATION TEAM**

2.1 Timing is of the essence in forming the investigation team. OSHA regulations require the team to begin its investigation within 48 hours of the Accident [OSHA 29 CFR 1910.119 (m)(2)]. Wagner-Meinert, LLC will start the investigation process as soon as it is reported.

2.2 The Safety Director or designee is responsible for notifying the Accident Investigation Team members. The Team will consist of the following:

 2.2.1 Safety Director or designee – Team Leader

 2.2.2 Project Manager

 2.2.3 Foreman

 2.2.4 Neutral Office Employee

The exact membership of the Team will be dependent upon severity and circumstances surrounding the accident.

2.3 The Team Leader's duties may include:

2.3.1 Controlling the scope of team activities by identifying which lines of investigation should be pursued, referred to another group for study or deferred;

2.3.2 Calling and presiding over meetings; training personnel in their responsibilities and incident investigation techniques.

2.3.3 Assigning tasks and establishing timetables and ensuring proper equipment will be available to assist in conducting the investigation.

2.3.4 Ensuring that no potentially useful data source is overlooked; and,

2.3.5 Keeping management advised of the progress of the investigation.

2.4 The Team Leader is responsible for ensuring that the Team has full access to the site, document files and to all employees who may have input to the investigation process. The Team Leader shall issue and post a notice on plant bulletin boards to the effect that an Investigation Team has been formed along with a listing of the Team members. Any employees feeling they have useful information shall be encouraged to contact the Team.

**3.0 DETERMINE THE FACTS**

3.1 A prompt and comprehensive search for facts surrounding the Accident is the first major undertaking of the Team. The Team shall conduct the following types of activities as it performs its fact-finding function.

3.2 Team members should visit the accident scene before physical evidence has been disturbed. The Team Leader is responsible for ensuring that the team is not subjecting itself to any dangers as the visit is conducted. Personal safety of the team members shall take priority over the Accident investigation process at all times. No team member shall be forced to take any actions, which they feel could endanger their safety.

3.3 Team members shall first review the scene individually, discuss their preliminary findings, and then repeat the process as a group with the Safety Director preparing a written log of observations and important comments. Some of the things that shall be noted during the scene visit are:

3.3.1 Indication of any unusual activities in the area (welding or cutting equipment, tools, motorized equipment, etc.).

3.3.2 Status of safety equipment in area (Was equipment used? Was it readily available? Any indications of safety equipment problems?).

3.3.3 Note positions of important valves and controls that could have contributed to the Accident or which may have been used to control the Accident.

3.3.4 Note any indications of fire or explosion damage and whether any

3.3.5 Note whether vessels, piping, etc. in the area were properly labeled and identified

3.4 The Team shall prepare visual aids such as photographs, sketches and graphical representations of information that may be useful during the investigation.

3.5 The Team shall take brief statements from any eyewitnesses who are available during the inspection of the scene. More detailed interviews should be arranged later. Avoid having several eyewitnesses share their impressions of the Accident so as to avoid undue influence of an eyewitness who may have a differing view of the Accident.

3.6 The Team shall determine whether any key mechanical equipment should be disassembled and should then observe such disassembly and record findings. Any equipment which may have failed or otherwise may have contributed to the Accident should be preserved and/or carefully documented.

3.7 The Team shall review all sources of potentially useful information such as as-built drawings, operating logs, records, charts, previous reports, standard and emergency procedures, equipment manuals, oral instructions, change records, training and performance records of employees, laboratory tests, etc.

3.8 The Team shall carefully document all sources of information gathered during the fact-finding process.

**4.0 DETERMINE THE CAUSE**

4.1 Establishing the cause of the accident is crucial to the development of effective recommendations to correct and prevent a recurrence.

4.2 It is also important that the true "root" cause of the accident, as well as contributing causes be identified. A recommended procedure for determining cause(s) of the accident follows:

4.3 The Team shall develop the "chronology of events" which occurred before, during and after the accident.

4.4 The Team shall identify any and all conditions or circumstances which deviated from normal, no matter how insignificant they may seem.

4.5 As a Team, strive to agree on the most likely root cause(s) and secondary cause(s). (Reference the standard lists of contributing causes contained on the Accident Investigation Report Form) (Appendix 1A).

**5.0 RECOMMEND CORRECTIVE AND PREVENTIVE ACTIONS**

5.1 During the "determination of the cause" process, some actions may surface that could have eliminated or reduced the chances for the Accident having occurred. In some cases, these recommendations may not relate to the most likely cause but may still be an appropriate recommendation to improve the safety of the process.

5.2 The Team shall formalize these recommendations in two distinct areas. Engineering changes should encompass those actions which include physical changes to the system hardware. Administrative changes should include procedural changes, training, etc.

5.3 The Team shall assess the urgency of implementing the corrective and preventive actions. If changes should be made prior to resumption of operations that should be clearly stated in the recommendations. Otherwise an approximate time frame for implementation of the changes should be included with each recommendation.

**6.0 COMMUNICATING RESULTS/FOLLOW-UP**

6.1 Communicating results fall into three distinct areas. First is the completion of the standard Accident Investigation Report Forms which shall be used in all cases requiring accident investigation. Second is the requirement that the results of the investigation be reviewed with appropriate personnel whose work assignments were affected or could have been affected by the accident or one like it. Third is providing documentation and communication of Lessons Learned.

6.2 A sample, standard Accident Investigation Report Form for accidents has been developed. The forms and instructions for use are included in subsequent appendixes of this program.

6.3 Within two weeks of the completion of investigation the Team Leader shall arrange for one or more review sessions with affected employees. The purpose of the meeting is to explain the outcome of the investigation. The Team, as part of its work, shall have developed a list of affected individuals (by name or job description) who shall be involved in the review process. The Team should consider accident circumstances in determining who the "affected employees" are. The Safety Director shall ensure that all appropriate affected personnel are in attendance at a review session. Minutes of review sessions shall include the names of all individuals in attendance as well as any major issues that were raised during the review.

6.4 If job site customer requires a copy of an Accident Investigation report. The Safety Director will contact customer for that determination.

**DOCUMENT MANAGEMENT:**

There are several documents that serve an important function within the Accident Investigation Program. Management of documents within the overall Process Safety Management Program is important. The following guidelines shall be followed in order to avoid excessive paperwork but yet ensure the proper functionality of the documents.

The following are the documents that will typically be associated with an Accident investigation, along with suggested filing and distribution paths:

Investigation Team Working and Support Documents:

Team Leader shall maintain the Team file during the investigation. Individual members of the team shall ensure that a copy of any important document, photo, etc. is in the Team file. At the close of the Team's work the file should be completely assembled in the one Team file or series of files and shall be clearly marked that it must be forwarded to the Safety Director and saved for five years.

 Copies are then made and documents are distributed as follows:

Original – Safety Director – original to be maintained for 5 years

Copies – Project Manager – copy to be maintained for 2 years

**CHANGE CONTROL:**

All management system changes are reviewed, approved or disapproved by the Safety Committee.

**PERSONNEL:**

The Owners have the ultimate responsibility for the Accident Investigation Program. They have designated the Safety Director to manage the Accident Investigation Program. The Safety Director determines whether an accident requires investigation and establishes the Team Leader and Team Membership.

| **Revision / Review History** |
| --- |
| **Revision** | **Date** | **Authorized By** | **Changes** |
| 1 | 9/11/2000 | Safety Director | New Index |
| 2 | 1/15/2001 | Safety Director | Annual Review |
| 3 | 1/10/2002 | Safety Director | Annual Review |
| 4 | 1/11/2003 | Safety Director | Annual Review |
| 5 | 1/15/2004 | Safety Director | Annual Review |
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| 8 | 9/6/2007 | Safety Director | Annual Review |
| 9 | 8/23/2010 | Safety Director | Annual Review |
| 10 | 10/3/2012 | Safety Director | Annual Review |
| 11 | 11/10/2012 | Safety Director | Annual Review |
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| 13 | 6/26/2017 | Safety Director | Annual Review |
| 13 | 7/01/2018 | Safety Director | Annual Review |
| 13 | 6/7/2019 | Safety Director | Annual Review |