

1.0 Purpose

- 1.1 This procedure acts as a supplement to HSE.70.004 *HSE Incident Classification, Investigation and Documentation Policy*. It provides guidance on reporting and investigating events for entry into the Enablon EHS&S Data Management System Site.

2.0 Applicability/Scope

- 2.1 This procedure is applicable to the Lake Charles South facility.

3.0 Definitions

- 3.1 See HSE.70.004 *HSE Incident Classification, Investigation and Documentation Policy*.

3.2 *Near Miss - An incident where no property was damaged and no personal injury was sustained, but where given a slight shift in time or position damage and/or injury easily could have occurred.*

4.0 Procedure

4.1 Reporting and Investigation

- 4.1.1 The site shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release of highly hazardous chemical in the workplace.
- 4.1.2 It is the responsibility of all employees, contractors, and visitors to report all potential HSE Incidents and Near Misses including, but not limited to near misses, potential injuries, injuries/illnesses, fires/explosions, spills and releases, security, industrial hygiene and other types of events to appropriate plant supervision when they occur or have been discovered.
- 4.1.3 Shift Superintendents or designee are responsible for notification and communication to appropriate local, state, federal, or governmental agencies as per regulatory requirements.
- 4.1.4 Supervision *should* follow the reporting guidelines as outlined in the Emergency Response Plan.
- 4.1.5 See *HSE.70.003 HSE Incident Reporting Policy* for additional internal reporting requirements associated with Level 1 and Level 2 HSE Incidents.
- 4.1.6 Events that may require a formal or informal investigation are detailed in procedures HSE.70.004 *HSE Incident Classification, Investigation and Documentation Policy*, HSE.70.004 *Attachment Incident Investigation Guidance*, and REL-100-001 Reliability Policy Overview.

4.1.7 *An informal investigation should be performed for all employee and contractor Precautionary and First Aid events associated with chemicals.*

4.1.8 Near misses may be investigated at the same level as if it had been an actual incident.

4.2 Timeline for Completion

4.2.1 Table 1: Event Timeline (See **HSE.70.003** for HSE Level criteria.)

	HSE Level 1 or 2	HSE Level 3 or 4	Responsible Person
Preliminary Investigation	Complete by the end of shift	Complete by the end of shift	Day or Shift Supervisors / Supts., Maintenance Supervisor, Shift Safety, or Safety Techs
Enablon Entry	Complete by the end of the first business day following the incident	Complete by the end of the fifth business day following the incident	Event Owner (or designee)
Investigation	Commence within 48 hours and complete within 7 days	Commence within 48 hours and complete within 7 days	Event Owner (or designee)
Informal Investigation / Formal Investigation	Entered in Enablon within 30 days of the event	Entered in Enablon within 30 days of the event	Event Owner (or designee)

4.3 Preliminary Investigation

4.3.1 Ensure that any injured personnel are attended to, and the area is safe for entry before conducting investigation techniques. All emergency response activities should be completed.

4.3.2 Day or Shift Supervisors / Superintendent, Maintenance Supervisors, Shift Safety, **or Safety Techs** are responsible for initiating data collection [by the end of the shift]. See 2305-M-2 Conducting and Documenting an Investigation for guidance.

4.3.3 *The investigation start time should be captured in a way that provides a time stamp. Acceptable methods include but are not limited to an email or logbook entry with the time the investigation started.*

4.3.4 Information should be gathered and documented through use of 2305-M-FRM-001 Preliminary Investigation Form and 2305-M-FRM-003 Investigation Witness Form. The form(s) and attached information is to be routed to the Event Owner (or designee) for the respective area for review and completion.

- 4.3.5 The nature and severity of an incident may require securing the scene for additional investigation by outside resources. Please follow the Emergency Response Plan.

4.4 Enablon Entry

- 4.4.1 Event Owner (or designee) will enter preliminary HSE Incident or Near Miss information into the Enablon platform within the timeline specified in Table 1 above.
- 4.4.2 Impacts [consequences of an event] associated with the incident information are to be entered based upon immediate information known at the time of entry. This information can be modified as further details are available.
- 4.4.3 HSE personnel are responsible for verification of Impact consequences, PSM/RMP classification, and API Tier classification to ensure accuracy and completeness.

4.5 Investigation

- 4.5.1 An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident. The requirements for the investigation will depend on the severity of the impact consequences.
- 4.5.2 Document the date and time the investigation began in the Enablon event.
- 4.5.3 All investigations will be finalized within 7 days of the event. In the event of a more complex or severe incident a timeline will be developed for the investigation and root cause analysis phase to ensure appropriate resources have been dedicated and are available.
- 4.5.4 An investigation may be raised to a higher “detailed level” at the discretion of the plant or corporate.
- 4.5.5 An investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident.
- 4.5.6 Event Owner (or designee) is responsible for forming an appropriate investigation team for all formal investigations. If a designee is used, they should be impartial with no direct involvement in the event.
- 4.5.7 The investigation team will complete the data collection process as outlined in 2305-M-FRM-001 Preliminary Investigation Form. *The form should be fully completed and attached to the event for Formal Investigations.*

- 4.5.8 All investigation data **and** evidence should be attached in the **Causes** section of the event **for further analysis**.

4.6 Informal Investigation / Formal Investigation

- 4.6.1 The Event Owner (or designee) is responsible for confirming the scope and level of root cause analysis required as outlined in HSE.70.004 **HSE Incident Classification, Investigation and Documentation Policy** and HSE.70.004 **Attachment** Incident Investigation Guidance, maintaining discovery data files during the investigation, and ensuring investigation and analysis is completed within the timeline requirements specified in Table 1 above. They will also work with the RCA Facilitator to ensure all investigation and analysis requirements are completed prior to submission for review.
- 4.6.2 An Informal Investigation will be conducted by utilizing an apparent cause or Five-Why Analysis to identify the sequence of events leading up to the incident and the corrective actions aimed at eliminating future occurrence. This investigation analysis **should** include, at a minimum, the supervisor and the employee[s] involved in the incident/near miss. The analysis information **should** be documented through the use of 2305-M-FRM-002 Root Cause Analysis / 5-Whys Form or in the Causes section of Enablon.
- 4.6.3 A Formal Investigation will be conducted by utilization of a trained RCA Facilitator [with understanding of the Apollo root cause analysis methodology]. This is to be completed with the assistance of a representative from the Health & Safety Dept., Environmental Dept., or PSM Dept., based on the nature of the event. Subject matter experts will be identified and included within the analysis phase. The RCA Facilitator will assist the team in developing a cause and effect chart, identifying root cause and associated causal factors, as well as identifying appropriate corrective actions and their assignments.
- 4.6.4 A report shall be prepared at the conclusion of **a Formal** Investigation which includes:
- 4.6.4.1 Date of incident
 - 4.6.4.2 Date investigation began
 - 4.6.4.3 A description of the incident
 - 4.6.4.4 The factors that contributed to the incident
 - 4.6.4.5 Any recommendations resulting from the investigation

- 4.6.5 In addition, a report for an RMP event will include the following items:
- 4.6.5.1 Date, time, and location of the incident
 - 4.6.5.2 Description of incident, in chronological order, providing all relevant facts
 - 4.6.5.3 The name and amount of the regulated substance involved in the release (e.g. fire, explosion, toxic gas loss of containment) or near miss and the duration of the event.
 - 4.6.5.4 The consequences, if any, of the incident including, but not limited to:
 - 4.6.5.4.1 Injuries
 - 4.6.5.4.2 Fatalities
 - 4.6.5.4.3 The number of people evacuated
 - 4.6.5.4.4 The number of people sheltered in place
 - 4.6.5.4.5 The impact on the environment
 - 4.6.5.5 Emergency response actions taken
 - 4.6.5.6 The factors that contributed to the incident including the:
 - 4.6.5.6.1 Initiating event
 - 4.6.5.6.2 Direct and indirect contributing factors
 - 4.6.5.6.3 Root causes
 - 4.6.5.7 Recommendations resulting for the investigation and a schedule for addressing them
- 4.6.6 All Informal Investigation / Formal Investigation forms, logic trees, reports, etc. should be attached in the Causes section of the event. A Primary Cause should also be selected as applicable to allow trending and reporting causes of events.
- 4.6.7 Corrective actions from both Informal and Formal Investigations shall be entered into Enablon and assigned for tracking purposes. Interim action plans should be put in place to protect workers during the corrective action period. An action plan should also be included to ensure that the findings from **PSM/RMP** Informal **Investigations** and **All** Formal Investigations are communicated to the affected personnel.
- 4.6.8 Action Plan due dates will be decided by the RCA team and approved by the Event Owner (or designee). Due dates should ensure findings are addressed in a timely manner.
- 4.6.9 The site **should** promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions **should** be documented. ***Any applicable documentation should be attached in Enablon.***
- 4.6.10 Typically, action plans should be completed within 90 days of the completion of the Informal Investigation / Formal Investigation, unless there are extenuating circumstances (outage required, capital project required, etc.) that will delay completion. Interim action plans should be implemented as soon as possible to avoid recurrence (or occurrence).

- 4.6.11 The documentation and action plans for the Informal Investigation / Formal Investigation should be entered in Enablon within 30 days of when the event occurred. If this cannot be completed within 30 days for a Level 1 or Level 2 event, refer to HSE.70.004 *HSE Incident Classification, Investigation and Documentation Policy* for guidance on obtaining a written extension.

4.7 Review and Approval

- 4.7.1 All root cause analysis associated with incidents and near miss events *should* be reviewed and approved *by the site Leadership Team*. Information contained within Enablon represents the final investigation report for an event.
- 4.7.2 The investigation report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable.
- 4.7.3 Depending on the nature and severity of the event, a review of the event may be escalated to all plant employees and core contractors.
- 4.7.4 Annually, all incidents will be analyzed for trends by the EHS Departments [Safety, Environmental, PSM]. Results of this analysis may be presented to the Leadership Team for identification of focus areas for further improvement. Additionally, the EHS Departments will monitor completion of corrective actions to ensure timely completion.
- 4.7.5 Formal incident investigation reports shall be retained for five years.

4.8 Training

- 4.8.1 All Lake Charles South exempt employees receive a computer based training module on incident investigation and root cause analysis.
- 4.8.2 RCA Facilitators receive formal classroom training on basic facilitation skills and root cause analysis methodology.

4.9 Contractor Investigations

- 4.9.1 Westlake is to be notified immediately of any contractor incidents and/or near miss events associated with contractor or vendor work conducted on site.
- 4.9.2 All reportable injury or process related events will be extensively investigated in cooperation with a Westlake representative. Root cause analysis is required for all reportable events and it is expected that Westlake personnel will be involved in determining corrective and preventive action to be taken.
- 4.9.3 All non-reportable injuries or process related events will be investigated immediately by the contractor supervisor and a written report must be submitted within 24 hours of the event occurrence.

4.9.4 It is expected that all contract employees must report injuries to their immediate supervisor even though it does not appear to be significant. A report of the event must be submitted to a Westlake representative for determination of follow-up investigation and analysis.

4.9.5 *Contractor near misses may be investigated using 2305-M-FRM-004 Contractor Investigation Form.*

5.0 References

- REL.100.001 Reliability Policy Overview
- *HSE.70.003 HSE Incident Reporting Policy*
- HSE.70.004 *HSE Incident Classification, Investigation and Documentation Policy*
- HSE.70.004 *Attachment* Incident Investigation Guidance
- OSHA 1910.119 Process Safety Management of Highly Hazardous Chemicals
- RMP 40 CFR Part 68, Chemical Accident Prevention Provisions
- API 754 Process Safety Performance Indicators for the Refining and Petrochemical Industries
- 2305-M-2 Conducting and Documenting an Investigation
- 2305-M-FRM-001 Preliminary Investigation Form
- 2305-M-FRM-002 Root Cause Analysis / 5-Whys Form
- 2305-M-FRM-003 Investigation Witness Form
- *2305-M-FRM-004 Contractor Investigation Form*
- *2305-M-FRM-005 Chain of Custody Form*

6.0 Distribution

6.1 This document is available to all Lake Charles South employees through EDMS.