EHS North America Program - Incident Investigation
Appendix A – Incident Investigation Procedure

1 Purpose:

This procedure provides instructions for conducting a facilitated Root Cause Analysis (RCA) Investigation using Cause Map methodology for the requirements stated in the North America Incident Investigation Program.

2 Application:

This procedure applies to all formal investigations.

***Reminder**: This Procedure can be used for any investigation*

3 Incident Investigation process explained

EHS Incident Investigation follows a process that includes six (6) stages. Each of those stages has a defined procedure to ensure quality and continuity of the investigation.

The six stages that make up this procedure are:

- Stage 1 – Incident Scene Containment
- Stage 2 – Incident Scene Release
- Stage 3 – RCA Investigation Preparation
- Stage 4 – RCA Cause Map Session Facilitation
- Stage 5 – RCA Investigation Follow-Up
- Stage 6 – Corrective Action Data Entry and Verification of Data Quality

The Table 1 below describes how an incident investigation is conducted from occurrence of the incident (stage 1) to post investigation follow-up (stage 6).

Table 1

Stage	Who	Description	Procedure Used
1	Front Line Supervisor	Contain the Incident by: • Securing the scene • Collecting initial evidence	Incident Scene Containment Procedure (page 3)
2	Area Management	• Releases the scene in consultation with site EHS	Incident Scene Release Procedure (page 4)
3	Investigation Cross-Functional Team Lead	Prepare for the Investigation by: • Evaluating initial evidence • Coordinating the collection of additional evidence as required • Organizing investigation team • Conduct meeting logistics	RCA Investigation Preparation Procedure (page 5)
4	Qualified RCA Facilitator	Facilitate the RCA Cause Map session to produce a final investigation report	RCA Cause Map Session Facilitation Procedure/Checklist (pages 6&7)
5	Investigation Cross-Functional Team Lead EHS GM/Site Leader or Designee	Conduct follow-up activity after the RCA Cause Map session is complete including: • Generating the Final Notice from the Final Investigation report • Distributing the Final Notice (as required) • Reviewing Intelex data for quality and accuracy • Entering and tracking corrective actions and evaluations of effectiveness	RCA Investigation Session Follow-Up Procedure (page 8)

Stage	Who	Description	Procedure Used
6	Intelex Full User designee	Review the data quality and entry in Intelex, enter corrective actions, evaluations of effectiveness and track them to completion.	Corrective Action Data Entry and Verification of Data Quality Procedure (page 9)

4 Stages of the Investigation

STAGE ONE > Incident Scene Containment Procedure- Follow the steps in the table below to contain the incident scene.

Incident Scene Containment Procedure/Checklist		
Step	**Action**	**Check**
1	Secure the perimeter of the scene with tape or physically prevent entry. ***Reminder:*** Always activate any needed Emergency Response activity and ensure that it is safe to remain in the area for evidence gathering prior to proceeding.	
2	Remove any non-essential personnel from the incident scene.	
3	Assemble a small team (as required) to help in evidence gathering.	
4	Use the *Evidence Gathering Checklist / Envelope* to collect and document evidence gathered from the scene and the names of anyone assisting in evidence gathering. ***Reference*** *Evidence Gathering Checklist / Envelope*	
5	Take pictures of the scene. Document the date, time, photographer of each photo. Include: • facing from multiple directions • failed parts, equipment, marks, damage, discoloration (physical) • different angles to show ground conditions, elevation, terrain • witness views • something to help provide sense of size/scale (ruler, pencil, etc.)	
6	Suggested: Sketch the incident area showing the position of involved personnel and equipment.	
7	Interview any personnel involved in the incident and any witnesses to the incident. Get written statements.	
8	Attach all evidence to the Evidence Gathering checklist, and/or insert into the Incident Investigation Evidence Gathering Envelope. ***Reference:*** *Evidence Gathering Checklist / Envelope*	
9	Contact the Investigation Cross-Functional Team Lead once all evidence is collected to initiate release of the scene in coordination with site EHS designee.	

STAGE TWO> Incident Scene Release Procedure - Follow the steps in the table below to release the incident scene.

<table>
<tr><th colspan="3">Incident Scene Release Procedure/Checklist</th></tr>
<tr><th>Step</th><th>Action</th><th>Check</th></tr>
<tr><td>1</td><td>Review the Evidence Gathering Checklist / Envelope and evidence to determine if all appropriate evidence has been collected.</td><td></td></tr>
<tr><td>2</td><td>Confirm that all Position, People, Parts/Material, Process, Environment, and Management evidence has been collected from the incident scene.</td><td></td></tr>
<tr><td>3</td><td>Consult with site EHS leader to assure scene (equipment, process, structures, etc.) are safe and environmentally contained/controlled enough to release the scene.
Make a determination to release the scene:
<table>
<tr><th>IF</th><th>THEN</th><th>Check</th></tr>
<tr><td>Sufficient evidence has been gathered and documented. Scene is safe and environmentally controlled.</td><td>Authorize Releasing the Scene</td><td></td></tr>
<tr><td>Insufficient evidence has been gathered and documented</td><td>Do not release the scene.
Request Initial Investigator to complete remaining evidence gathering.</td><td></td></tr>
<tr><td>Scene remains unsafe or environmentally uncontrolled.</td><td>Do not release the scene.
Restore safe/controlled working conditions.</td><td></td></tr>
</table></td><td></td></tr>
<tr><td>4</td><td>Document the authorization of releasing the scene on the Evidence Gathering Checklist / Envelope</td><td></td></tr>
<tr><td>5</td><td>Transfer all evidence and the checklist to the Investigation Cross-Functional Team Lead if known, otherwise, transfer to Environmental/Safety.
Reminder: The transfer of evidence should be a strict chain of custody from Initial Investigator to Investigation Cross-Functional Team Lead or EHS</td><td></td></tr>
<tr><td>6</td><td>Document the incident in Intelex and begin initial investigation within 12 hours.</td><td></td></tr>
</table>

STAGE THREE> RCA Investigation Preparation Procedure- Follow the steps in the table below to prepare for the root cause analysis investigation.

RCA Investigation Preparation Procedure/Checklist		
Step	**Action**	**Check**
1	Using the *Evidence Gathering Checklist/Envelope,* review the initial evidence that was collected and released from the incident scene to determine what additional evidence may be needed to conduct the investigation. Initial evidence should include items such as: • Witness statements • Photographs • Sketches, Diagrams ***Evidence Gathering Checklist/Envelope***	
2	Assign/delegate the collection of any additional evidence or information that may be needed for the investigation to the appropriate member of the investigation team. Additional evidence may include items such as: • Procedures/SOPs (Operational Controls) • Task Risk Assessments (FLHA – JHA – JSA) • Pre-Job Planning Documents • Safe Work Permits • Instructions, operator logs • Diagrams, Equipment Drawings • Risk Register activity associated with the incident • ***Warning: Do not hold the RCA session without key additional evidence. The session will have to be rescheduled if operational controls are not collected and included in the meeting.***	
3	Assemble a representative team to participate in the incident investigation RCA Cause Map session including SMEs related to the incident.	
4	Contact a Qualified RCA Facilitator to conduct initial meeting planning.	

STAGE FOUR> RCA Cause Map Session Facilitation Procedure- Follow the steps in the table below for facilitation of the Root Cause Analysis Cause Map Session.

RCA Cause Map Session Facilitation Procedure/Checklist	
Step	**Action**
1	Check to see that you have the current version of the Cause Map Investigation Workbook and Cause Map Meeting Guide (PowerPoint slides). (Both are located within the Incident Investigation Program folder)
2	It is recommended to populate the workbook (and PowerPoint guide if used) with the Problem Statement, 24 Hour Notice, incident descriptions, photos, sketches, and other evidence prior to the start of the meeting.
3	If possible and practical, physically view the incident location prior to the meeting kickoff.
4	Recommend use the Cause Map Meeting Guide PowerPoint as a step by step guide to conduct the meeting and the Investigation Workbook to document the team's work building the Cause Map. ***Reminder:*** Training is required for Qualified RCA Facilitators prior to conducting an RCA investigation.
5	Wrap up the investigation by digitizing all information from white boards and post it notes into the Excel Investigation Workbook within 72 hours of RCA Cause Map session. ***Result:*** The RCA session must conclude with proposed corrective actions that are both effective and feasible. At a minimum, at least one (and should be the most appropriate Corrective Action(s)) must be selected for Evaluation of Effectiveness (EOE).
6	Remove informational tabs from the Investigation Workbook that are not needed for the team to review and approve the investigation. At a minimum, the following tabs are to remain for the Investigation Final Report: • Title Page • Legal Obligation Statement • Cause Map Meeting Sign-in Sheet (Scanned) • Problem Statement Outline • RCA Diagrams/Cause Map • Solutions (CAPA and if appropriate, NON-CAPA Tables) • Incident Photos and Document Evidence
7	Convert the remaining tabs in the Investigation Workbook to a PDF file. ***Result:*** This PDF file is now the Investigation Final Report. It is to be attached to the Final Notice (as required) email and archived in Intelex.

8	Send the draft Investigation Workbook to the investigation Cross-Functional Team lead for review. The team lead should then forward/discuss the Investigation Workbook with their GM/Site Leader.
9	Once the GM/Site Leader approves the Investigation Workbook is then forwarded to the appropriate Director of EHS (Environmental or Health & Safety) and optional to their respective VP for their review. (Example – a safety incident at a site would go to the site GM and then to Director H&S plus the VP Operations for QA/QC review)
10	After final QA/QC revisions and approvals, convert the final Investigation Workbook to a PDF file. ***Result:*** This PDF file is now the **Investigation Final Report**. It is to be attached to the Final Notice (as required) email and archived in Intelex.

STAGE FIVE> RCA Investigation Follow-Up Procedure- Follow the steps in the table below to conduct the RCA follow-up activity.

RCA Investigation Follow-Up Procedure/Checklist		
Step	**Action**	**Check**
1	Investigation Cross-Functional Team Lead – set up a review of proposed corrective actions, selected evaluation of effectiveness and cause map with: • Applicable Management • Site EHS • General Manager/Site Leader	
2	Upon final approval of the determined causes, proposed corrective actions, and selected evaluations of effectiveness proceed to creating the draft Final Notice to be distributed by the General Manager/Site Leader.	
3	A copy of the Solutions Table must be included in the Final Notice.	
4	After final review and approval by Safety and the General Manager/Site Leader, distribute the Investigation Final Report using the Notification process, based on the Tier system, as described in the MMS Incident Management Program.	
5	Route the Investigation Final Report, Final Notice (as required), and any other final documentation to the appropriate Intelex Full User designee for data quality review and input into Intelex.	

STAGE SIX> Corrective Action Data Entry and Verification of Data Quality Procedure-

Follow the steps in the procedure below to review the data quality in Intelex, enter corrective actions, evaluations of effectiveness and track them to completion.

Corrective Action Data Entry and Verification of Data Quality Procedure/Checklist		
Step	**Action**	**Check**
1	Designee (Intelex Full User designee) – Review the incident claim for data quality and integrity entering any missing information.	
2	Ensure that the language in the Intelex mandatory fields matches the Investigation Final Report/Final Notice.	
3	Save and close the incident claim record. ***Note:*** All mandatory fields must be populated in order to save and close the claim. Closing the claim record ensure all required fields are populated.	
4	Run status reports using established Intelex queries on a routine basis according to site management processes to track completion of corrective actions and pending evaluations of effectiveness.	
5	Distribute or post the open corrective action and pending evaluation of effectiveness status based on site management instruction and practices.	