	<p align="center">PRE-INCIDENT AND INCIDENT INVESTIGATIONS</p> <p align="center">ALL-AOA-00-000-HST-0020 REV. 2</p>	<p>Retention Code: CG01 - CA</p>
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Document History

Date	Approved by	Change Summary
November 30, 2020	David Reaich	<ul style="list-style-type: none">• Investigation Process• New associated forms• Incident Owners• Risk Matrix Purple Line• Corporate OTL• Pre-Incident Learning

About this Procedure

Purpose

The purpose of this procedure is to outline the investigation processes designed to help prevent occurrence and recurrence of incidents and near misses on all ConocoPhillips Canada work sites.

Scope

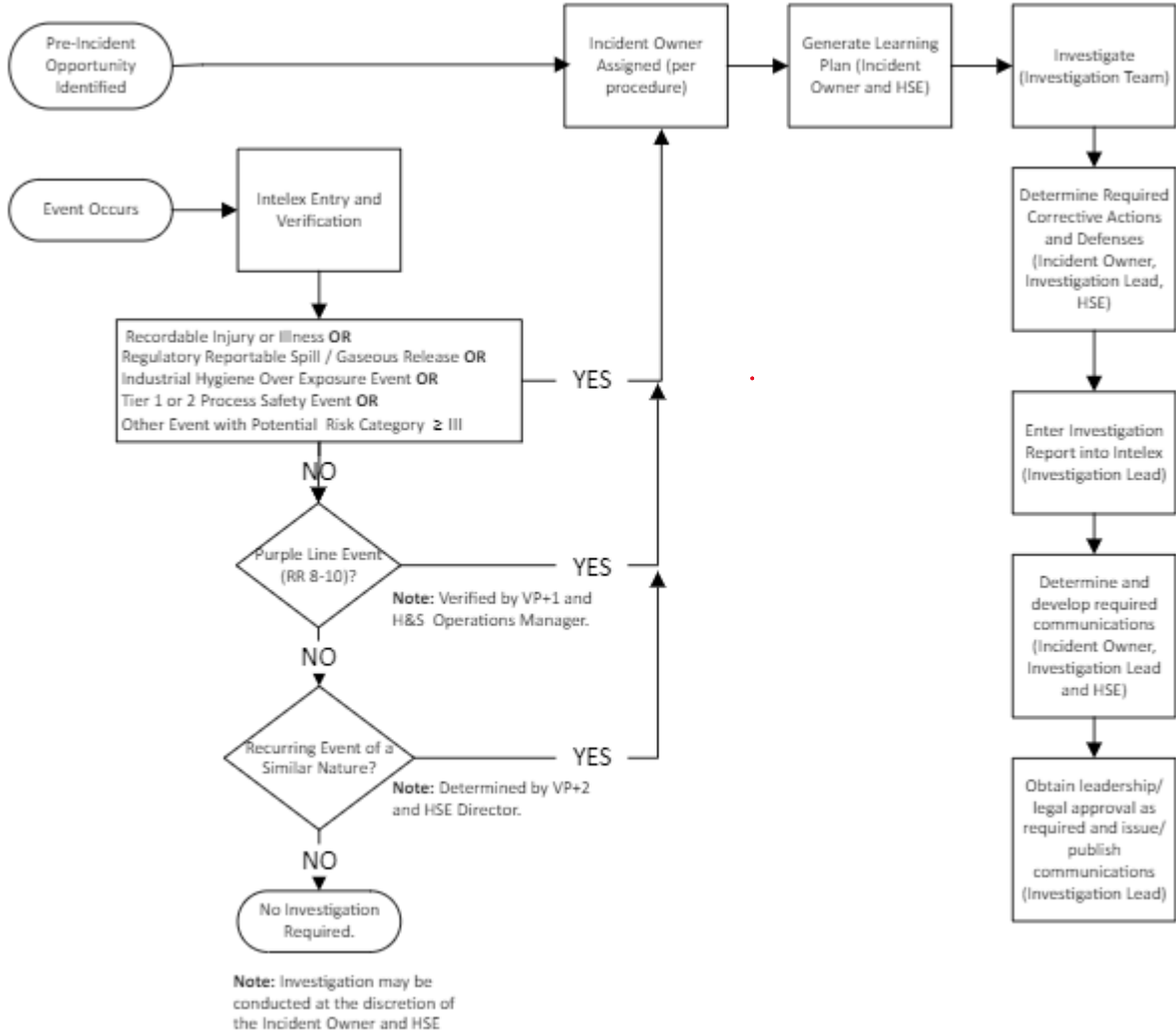
This procedure applies to pre-incident investigations and near miss/incident investigations when events occur within ConocoPhillips Canada's operational control.

1. General

Investigations are one element of a learning organization and critical to the success of high reliability organizations. Learning through investigation should:

- Acknowledge that human error is a symptom of weakness in systems or defenses.
- Seek to understand active errors and latent conditions.
- Focus on how work is done and seek to understand the work from the perspective of the person performing it.
- Focus on strengthening the system and not blaming individuals for unintentional errors.

1.1. Investigation Process Overview



NOTE: Purple line events sit on the border between medium and significant risk events on the risk matrix and may present a valuable learning opportunity. A detailed description of purple line events can be found in the corporate Opportunity to Learn Practice.

2. Pre-Incident Investigations

Pre-incident investigations are discretionary and may be initiated any time the business has unease and seeks to further understand. Pre-incident investigations:

- Help to identify potential incidents **before** they take place.
- Can be used to better understand what made something (e.g. a project) successful.

Examples of what may trigger a pre-incident investigation include:

- Incident trends (e.g., repeated low severity incidents)
- Audit outcomes
- Weak signals or other proactive mechanisms which reveal system weaknesses.

Pre-Incident investigations are most often conducted using the Learning Team format. See Incident Investigations section for details on planning and conducting Learning Teams.

3. Incident and Near Miss Investigations

Incident investigations help determine how an incident occurred and the defenses that should be implemented to prevent recurrence.

Scene Management and Evidence Preservation.

In the order of priority, when an incident occurs, act to:

1. Preserve life
2. Prevent injury
3. Protect the environment
4. Minimize impact to assets.



NOTE: Only disturb an incident scene to accomplish the above or in the case of regulatory reportable incidents, with permission from the occupational health and safety or law enforcement.

Secure the scene to prevent it from being altered. If the scene **must** be altered:

- Inform HSE and the appropriate leadership
 - Document what was done and why. Include photographic evidence when possible.
-

Event Types to Investigate

The following event types must be investigated:

- Recordable Injuries and Illnesses
- Regulatory Reportable Spills / Gaseous Releases
- Industrial Hygiene Over Exposure Events
- Tier 1 and 2 Process Safety Events (PSE)
- Any event with potential risk rank III- Significant or IV- High.

The following event types should be investigated:

- Purple Line events
- Recurring events of a similar nature causing unease.



NOTE: Any incident can be investigated if it is believed the incident can be learned from and an investigation would add value.


Investigation Types

Approved investigation types include:

Investigation Type	Use
Simple Investigation	Default investigation type. Used when a Root Cause Analysis (RCA) (TapRoot®) is not required, and a learning team is not suitable.
Root Cause Analysis (TapRoot®)	Use for high and significant risk incidents.
Learning Team	An alternative to the above types. Learning teams are recommended if: <ul style="list-style-type: none">• Notably similar incidents have occurred in the past• The systems involved in the event are highly complex or variable• Communication between departments, functions or groups is a factor• The incident owner sees value in a learning team.

Investigation Requirements

Risk Level	Incident Owner	Investigation Lead	Investigation Method	Days to Complete	Days to Approve
High 20-25	President	Field experience and formally trained in TapRoot® External to Organization.	TapRoot®	45	45
Significant 12-16	VP	Trained TapRoot® Investigator External to Operation	TapRoot®	30	45
Medium 8-10	VP+1	Trained Investigator	Simple Investigation	14	45
		Learning Team Facilitator	Learning Team		
Medium 5-6 and Low 1-4	VP+2	Trained local Investigator	Simple Investigation	7	14
		Trained Learning Team Facilitator	Learning Team		

 **NOTE:** For significant and high-risk events, the investigation team must include at least one person outside of the operation

Planning Investigations

Incident owner will be assigned as per the CPC Risk Matrix. Highest risk rank of actual or potential risk will be used

Before investigating any incident, a Learning Plan will be generated. The Incident Owner in collaboration with the HSE Director will:

- Ensure the incident has been accurately and completely entered in Intelex and has been verified by the incident owner and HSE
- Assign the Lead Investigation. Corporate HSE must be consulted for high risk events.
- Determine the investigation method to be used
- Assign the investigation team Corporate HSE must be consulted for high risk events.
- Determine investigation due date and investigation approval due date using the above table.



NOTE: Consider SMEs and corporate resources for specialized expertise, analysis of incidents and to conduct special investigations.

ConocoPhillips General Counsel must be consulted if there was:

- A fatality
- An injury requiring overnight hospitalization in which treatment is required
- Potential for a significant environmental impact
- An evacuation of workers from Company facilities
- An evacuation or shelter-in-place of members of the surrounding community.

Investigating Incidents

Regardless of investigation method, the following should be done:




1. Collect, preserve, and secure evidence
2. Collate and cross check information
3. Determine the sequence of events
4. Identify similar previous events and corrective actions
5. Identify system weaknesses
6. Complete the appropriate investigation report.




NOTE: All investigations should commence as soon as reasonably practicable following an incident.


Corrective Actions and Defenses

Consider the following when determining and approving corrective actions and defenses:

Criteria																
Appropriateness	Ensure the defenses and corrective actions directly correlate with the cause and are verifiable.															
Sustainability	Ensure defenses will stand the test of time. Avoid patches or quick fixes.															
Resiliency	<p>Favor more robust defenses. Consider the hierarchy of controls:</p> <table border="0"> <tr> <td rowspan="5" style="text-align: center; vertical-align: middle;">  </td> <td>Elimination</td> <td style="text-align: right;">HIGH</td> </tr> <tr> <td>Substitution</td> <td></td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Engineered Defenses</td> <td style="text-align: right;">MEDIUM</td> </tr> <tr> <td>Administrative Defenses</td> <td></td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Personal Protective Equipment</td> <td style="text-align: right;">LOW</td> </tr> </table>		Elimination	HIGH	Substitution		<hr/>		Engineered Defenses	MEDIUM	Administrative Defenses		<hr/>		Personal Protective Equipment	LOW
	Elimination		HIGH													
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	Administrative Defenses															
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Personal Protective Equipment	LOW															

 **NOTE:** The Incident Owner must approve all corrective actions and defenses.

- Target dates for corrective actions and defenses (action items) must be assigned
- Corrective actions must be completed by assigned target dates.
- If corrective action cannot be completed, target date extensions must be approved by the:
 - Incident owner for low and medium-risk incidents.
 - CPC VP HSE&SD and corporate VP HSE for significant and high-risk incidents.

 **NOTE:** For significant and high-risk incidents, if a target date for a corrective action is ≥ 6 months out, interim mitigations must be identified and tracked to completion in Intalex.

4. Capturing and Communicating Investigation Results

Capturing Incident Investigations

Intelex, the HSE data management tool will house all incident investigations and will track action items to closure:

- Select the appropriate investigation type.
- Complete the appropriate investigation report when required. (e.g. learning team report, simple investigation report or RCA report)
- Input investigation information into Master Event, not subevents
- Prioritize the use of Intelex fields for investigation information. Any relevant information that cannot be effectively entered into Intelex fields may be included as an attachment
- Action items must be added to the Master event. This will ensure the investigation can be closed even if action items remain open.
- Action items must be discussed with the responsible individual before being assigned in Intelex.



NOTE: A separate investigation report is not required for Simple Investigations. While a report template is available, completing Intelex entry serves as the investigation report.



NOTE: Pre-Incident Investigations are considered Studies in Intelex. Select 'Proactive Learning Team/Pre-Incident Opportunity' as 'Type of Study'. Actions may be entered and tracked to completion.

Communicating Investigation Outcomes



The purpose of communicating investigation outcomes is:

- To support individual and organizational learning through timely communication and sharing of lessons and causal themes from events
- To prevent occurrence or recurrence of similar events outside of the immediate work area.

Pre-incident investigation and incident Investigation summaries should include:

- The context surrounding an event
- Lessons learned
- Safeguards, defenses, and critical controls
- A series of reflective questions or verification focus areas.

Criteria for communicating investigation outcomes:

<p>Internal Communications</p>	<ul style="list-style-type: none"> • A variety of communication tools may be used (safety meetings, video learning, electronic boards, one-page summaries etc.) • Regardless of investigation methodology or risk level, all pre-incident investigations and investigations must have a one-page Learning Summary issued and posted on the HSE MS Webpage. • An Early Learning Opportunity (ELO) may be completed if final learnings are expected to take a long time or if urgent action or communication is required. • For significant and high-risk incidents, communication requirements may change as directed by the Incident Owner.
<p>Opportunity to Learn (OTL)</p>	<ul style="list-style-type: none"> • An OTL must be developed and distributed for all events that are risk ranked as Significant or High. • Events that could have resulted in a more serious consequence or present an opportunity for rich learning across the business should be considered (i.e. purple line events). • See the corporate Opportunity to Learn Practice for details.
<p>External Communications</p>	<p>External communication will be approved by the VP HSE SD where sharing of learnings and defense actions will benefit groups outside of CPC. Examples include sharing with:</p> <ul style="list-style-type: none"> • CAPP or Energy Safety Canada • Local communities/stakeholders • Regulators. <div data-bbox="805 1402 1409 1539" style="border: 1px solid black; padding: 5px; margin-top: 10px;">  <p>NOTE: External communications must undergo legal review prior to distribution.</p> </div> <div data-bbox="805 1587 1409 1822" style="border: 1px solid black; padding: 5px; margin-top: 10px;">  <p>NOTE: When investigation results are required by a regulatory body, the Investigation Lead and Incident Owner will work closely with the Regulatory Team to ensure requirements are fulfilled.</p> </div>

5. Templates and Forms

Forms and Templates

Form or Template	Use
Learning Plan (CPC)	Planning Investigations
Simple Investigation Report (CPC)	Simple Investigations (excludes learning teams and RCAs)
Learning Team Report (CPC)	Reporting on Learning Teams
RCA Report (COP)	Reporting on Root Cause Analyses.
Early Learning Opportunity (CPC)	Pre-investigation event sharing - Canada
Learning Summary (CPC)	Post-investigation sharing of event learnings - Canada
Early Event Learning (COP)	Pre-investigation event sharing - Global
Opportunity to Learn (COP)	Post-investigation sharing of event learnings - Global
