



INCIDENT INVESTIGATIONS

1.0 Purpose

This element identifies Petsec's Incident Reporting and Incident Investigations procedures for its Safety and Environmental Management System (SEMS) Program; it applies to all Petsec operations. Incidents with (or determined to possess the potential for) serious safety and environmental consequences are investigated.

2.0 Process

All incidents and illnesses are reported, regardless of their severity and whether in the field or in the office; this includes even minor first aid incidents. After the incident is reported, steps are taken to minimize personal injury and suffering, equipment and property damage and damage to the environment, and to manage the incident to prevent it from becoming a recordable. Then the incident is investigated.

2.1 Incident Investigations

Incidents with serious safety and environmental consequences or the potential for serious safety and/or environmental consequences are investigated as promptly as possible, with regard for the need to secure the incident scene and protect people and the environment.

Incident investigations are conducted by personnel knowledgeable in the process involved, in investigation techniques and in other specialties that are relevant or necessary to the incident and the investigation.

The investigation process includes the nature of the incident, the factors (human or other) that contributed to the sequence of events that resulted in the incident or its escalation and/or control and the recommended changes identified as a result of the investigation to prevent the incident from happening again, as presented below:

2.1.1 Upon initial notification of an incident, the Operations Manager determines if an incident or illness will be investigated:

2.1.1.1 Production Supervisor notifies the Facility PIC and Operations Technician / Regulatory of decision immediately.

2.1.1.2 Facility PIC takes the following steps to secure the scene and preserve the evidence:

- Tapes off/barricades location; notifies all on board to avoid incident/illness scene.
- Assures equipment, materials are not disturbed.
- Takes several pictures of the incident scene from different angles.
- Collects any documents relative to the incident: JSEA, Safety Meeting, Orientation, Documentation of Job Performance, etc.
- Obtains independent statements from victims and/or witnesses of everything they can remember about the incident/illness.

NOTE	Encourage persons completing statements to include what happened leading up to the incident, if any equipment testing was going on and what happened at the time of the incident.
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2.1.1.3 Production Supervisor immediately assembles the investigation team and notifies the members of the team of the time and place to meet to begin the investigation.

2.1.2 Investigation team accomplishes the following:

2.1.2.1 Gets a briefing from the Facility PIC of all that has taken place since the incident occurred.

2.1.2.2 Reviews statements of the victims and/or witnesses.

2.1.2.3 Reviews documents/pictures provided by Facility PIC.

2.1.2.4 Visits incident location and makes observations; if necessary, takes additional pictures.

2.1.2.5 Asks questions of the victims and/or witnesses using **Attachment B, Investigation Process Techniques** to gather information on the following:

- Events leading up to start of work.
- Events occurring during job/task.
- Events associated with testing.
- Details of the actual incident.

2.1.2.6 Using information collected and obtained in the previous five steps, determines root cause(s) of the incident or illness.

2.1.2.7 Generates findings and corrective actions that must be addressed as soon as practical, to prevent this or similar incidents from happening again.

- 2.1.2.8 Generates an investigation report (with findings and corrective actions) and submits it to the Production Supervisor and/or Facility Engineer for review and approval, within 14 days after the incident. Refer to **Attachment A, Investigation Report**.
- 2.1.2.9 Prepares findings and corrective actions for handling; see Corrective Action Program and **Attachment C, Corrective Actions Report**.
- 2.1.2.10 Production Supervisor and/or Facility Engineer distributes the *Investigation Report* to the Operation Technician / Regulatory, Operations Manager, Legal Counsel and President.

2.2 Corrective Actions Program

The *Investigation Report* contains findings followed by corrective actions that are addressed in our Corrective Actions Program. Each corrective action addresses a specific finding (root cause) which must be completed within a reasonable amount of time.

- 2.2.1 After the investigation, findings and corrective actions are entered onto the *Investigation Report* and the *Corrective Actions Report*.
- 2.2.2 Each corrective action item is *Assigned To* a responsible person: Production Supervisor and/or Facility Engineer along with a *Due Date* for completion.
- 2.2.3 If necessary, responsible person prepares an MOC and obtains approval according to the *Management Of Change* element.
- 2.2.4 When the responsible person completes the corrective action, he/she enters the *Completion Date* and signs his/her *Initials*.
- 2.2.5 When all of the corrective actions are complete, the Report is sent to the Facility PIC for verification of completion and signature; PIC or designee uploads Incident Report and Corrective Actions Report into the SEMS files within 30 days after the Reports are complete.
- 2.2.6 An incident summary is generated and distributed by the Operations Technician / Regulatory to all personnel on all Petsec facilities as a Safety Alert within 30 days after the Reports are complete.

NOTE	Findings and corrective actions are retained for use in the next process hazards analysis and/or audit (and a minimum of six years).
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3.0 Training

- 3.1 Train all employees and contract personnel every five (5) years on the contents of this element; refer to the Training element.
- 3.2 Train all newly-hired employees and affected contract personnel within 30 days of date of hire on the contents of this element; refer to the Training element.
- 3.3 Train or inform affected employees of any changes to this element within 30 days after the element changes have been approved and completed.

4.0 Recordkeeping

- 4.1 Copies of Investigation Reports and Corrective Action Reports are placed in the SEMS files within 30 days of the completion of the Report and are retained for six (6) years.

5.0 Attachments

- 5.1 Attachment B: Investigation Process Techniques
- 5.2 Attachment C: Investigation Report
- 5.3 Attachment D: Corrective Actions Report

Attachment A

Investigation Questions

Events leading up to the start of work:

1. What was the specific job to be performed? Describe.
2. Was one person designated as supervisor of the job? List name.
3. Who was selected to perform the work? List names and companies.
4. Were personnel properly trained to perform the job? Explain.
5. Were personnel fatigued, impaired, inattentive? Explain.
6. Was a JSEA completed prior to the start of the job? Attach copy of JSEA.
7. Were the steps, hazards and procedures on the JSEA reviewed with the workers? Explain.
8. Was the location locked and tagged prior to the start of work? Explain.
9. How was the job to be conducted? Describe/list steps; compare to JSEA.
10. Did job involve repetitive motion, uncomfortable positions, vibration, heavy lifts?
11. Was anything else done prior to the start of work? Explain.
12. Other questions: _____
13. Other questions: _____

Events occurring during job/task:

- What instructions were given to the workers during the job? Explain.
- Which steps of the job did you perform/were you performing? Explain.
- Were others doing work at the same time/at the same location? Explain.
- Was there any disagreement about who/what/when/where regarding work?
- Were there any difficulties during the job? Explain.
- Did you have trouble recognizing what to do or how to do it? Explain.
- Was equipment, controls, displays identified or operated improperly? Explain.
- Were you able to perform the task? Explain.
- Was communications ever a problem during the work; did you understand each step in the process? Explain.
- How long was the job going before the incident?
- Was there any pressure to hurry up the work? Explain.
- What steps did you perform to complete the job? Describe.
- Were the procedures used correctly, incorrectly or not used? Explain.
- Were any steps/practices not used? Explain.
- How was it determined that each part of the job was complete? Explain.
- What were the conditions in the work area (weather, lighting, etc.)? Explain.
- Was there a sense of the potential for failure known before the incident occurred?
- Would an independent quality check have caught the problem? Explain.
- Other questions: _____
- Other questions: _____

Attachment B

INVESTIGATION REPORT

Name of Person Involved in Incident:	Location:	Date of Incident:
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1. Describe incident in detail (from Initial Report):

2. Identify events leading up to start of work:

3. Identify events occurring during job/tasks:

4. Identify events associated with testing:

5. Describe details of actual incident:

6. Identify cause(s) of incident:

a.

b.

c.

d.

e.

7. Identify corrective action(s) of incident:

a.

b.

c.

d.

e.

7. Witnesses: Obtain names and telephone numbers. Attach original witness statements.

Facility PIC Name:	Signature:	Date:
Foreman Name:	Signature:	Date:
Other Investigation Team Member Name and Title:	Signature:	Date:
Other Investigation Team Member Name and Title:	Signature:	Date:
Production Superintendent's Name:	Signature:	Date:
Manager – HSE Name:	Signature:	Date:

Attachment C

CORRECTIVE ACTIONS REPORT

Name of person involved in Incident:	Location:	Date:
Describe incident in detail:		

Causes of Incident (Findings) (from Investigation Report)	Corrective Actions (from Investigation Report)	Assigned To (name)	Due Date	Completion Date	Initials

Facility PIC has verified the corrective actions have been completed for the findings of this incident investigation, relative to the incident or illness.		
Facility PIC (Name):	Signature:	Date: