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Event Reporting and Investigation Protocol

Purpose

This Devon Energy EHS protocol defines the requirements for reporting and investigating EHS events, e.g., incidents, near misses and reviews.


Scope

This protocol applies to all Devon operated equipment, facilities and Devon employees.

Contractors will report incidents and near misses, which occurred at Devon locations to Devon personnel. Contractors will have a program which defines their investigation process, corrective action tracking and training requirements for investigation leads.

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1.0 RESPONSIBILITIES

Division/Business Unit Leadership

- Reinforce adherence to this protocol and provide resources for application of the protocol.
- Ensure employees responsible for incident reporting and investigation receive required training.

Line Supervisor

- Understand how this protocol applies to personnel in their area of responsibility.
- Ensure employees have training, skills, knowledge and understanding to comply with this protocol.
- Check periodically to ensure the requirements of this protocol are being met.

Environmental, Health and Safety

- Provide technical resources and tools for protocol application.
- Monitor compliance through the audit process.

Devon Employees

- Adhere to the requirements of this protocol.
- Identify and report gaps in this protocol.
- Complete required training.

Contract Company Representative

- Comply with regulatory requirements and follow the Devon EHS protocols.

2.0 TERMS AND DEFINITIONS

2.1 Event Types

Incident - an event or occurrence resulting in a personal injury, a spill, a release into the environment, regulatory non-compliance, property damage, fire, motor vehicle damage, equipment failure, complaint or other loss.

Incident subtypes include:

EHS Complaint - event related to environmental, health and safety concerns identified by a member of the public, leaseholder or landowner. This type is used to document and track agency Notice of Violations/Notice of Enforcement.

Regulator Complaint - used to document and track agency notice of violations in which no enforcement action is taken.

Regulator Complaint NOV - used to document and track agency notice of violations/notice of enforcement in which enforcement action is taken. (This may include, but not be limited to: monetary, criminal, civil and/or consent decree / settlement.

Injury / Illness - an event which resulted in a work-related injury or illness to a Devon employee, contractor, sub-contractor or visitor.

Line Strike - an event where a pipeline, flow line, gathering line, electrical line, instrument line (cable) or communications line was struck.

Motor Vehicle Incident (MVI) - any vehicle incident involving a company-owned, leased or rented vehicle while being operated. Events involving a vehicle that is parked will be entered as a "property damage" event.

Pipeline Failure/Leak - event where a section of regulated line or piping failed resulting in a release.

Property Damage - incidents which involve damage to Devon-owned, operated or leased



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equipment. Property damage also includes damage inflicted by Devon operations to third party or stakeholder assets. This includes operations being performed by contractors on behalf of Devon. Fires will be classified as property damage incidents.

Spill - when liquid, or slurry is lost or discharged without regulatory authorization from its primary containment, including but not limited to, oil, condensate, fresh water, produced water, frac fluids, drilling mud, chemicals, etc. Spills reportable to a regulatory agency or spills greater than 1 barrel (42 gallons) will be reported in Shield. Spills of less than 1 barrel and not reportable to a regulatory agency are not required to be entered in the database (see **Appendix E** for further guidance on spill reporting and remediation responsibilities.)

Equipment Failure - failure of a piece of equipment that resulted in an EHS related event or near miss.

Unplanned Air Release - any event that involves an unplanned release of product or material to the air due to upset condition(s).

Wildlife Incident (Canada) - unplanned encounter with hazardous wildlife (does not include vehicle strikes).

Near Miss - an event that occurred and could have, but did not result in an incident.

Non-Compliance - any notice of violation or enforcement received from a federal, state or provincial regulating authority (e.g., notice of violation, or notice of enforcement). *Reported in Shield as an EHS Complaint.*

Non-Conformance - any event that is discovered by Devon that may have resulted in a non-compliance if discovered by a regulatory agency. Reported in Shield as a "Non-Compliance / Non-Conformance (Self-Reported)."

2.2 Roles

Event Advisor - EHS individual who confirms the class of event and acceptability of corrective actions in Shield.

Event Owner - an individual who has overall accountability for the incident, investigation, corrective action and responsibility for closing the event in Shield.

Event Manager - EHS individual who works with supervisor(s) to manage the event and enter investigation information.

Event Reporter - an individual who initially reports the event to supervision.

Line Supervisor - a titled position that has assigned authority and responsibility for financials, production, maintenance, projects and personnel for a defined area. In Devon, this could be any manager, supervisor, superintendent, foreman or assistant foreman. For the support organization it could be any vice president, manager, leader or supervisor.

Person-in-Charge (PIC) - a person that has been authorized by Devon to perform specific tasks to comply with Devon EHS Protocols and/or regulatory requirements related to EHS. The PIC is defined in all procedures in the second column of the protocol section.

Field EHS - a titled position that provides EHS guidance and support within a Division.

Contract Company Representative - a contractor who is assigned responsibilities, oversight and acts as Devon's on-site representative following and implementing the protocol steps as an employee would, for a specific task that requires adherence to Devon EHS Protocols.



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2.3 Treatment/Other Event-Related Terms

Days Away - the number of days away from work after an injury. Does not include the initial day of injury, the day the employee returns to work or days when the employee had to travel to medical facilities for evaluation. The days are counted continuously including weekends, holidays, normal days off, etc. as if the employee were required to work, until employee is able to return to work.

Days Away Incident - a work-related injury or illness which prevents the injured person (IP) from performing any work on the next scheduled work day.

First Aid Case - a work-related injury or illness that is treated with one of the methods on the First Aid Treatment List (**Appendix F**). Any other treatment is considered medical aid.

For Information Only (FIO) - incidents that Devon inputs into Shield for non-trending data purposes. FIO will be used to document events that occur and do not involve Devon's operations. For example, if an individual gets sick on location due to a personnel illness, it can be entered as an FIO for documentation purposes.

Life-altering Injury or Illness - one that results in permanent or long-term impairment, disfigurement, loss of use of an internal organ, body function, or body part, or ability to earn a living.

Life-threatening Injury or Illness - one that will require the immediate intervention of internal and/or external emergency response personnel to provide life-sustaining support.

Medical Treatment Only Case (MTOC) - a work-related injury or illness that requires medical treatment, but does not result in a Days Away or Restricted Workday Case (RWC).

Occupational Illness - any abnormal condition or disorder other than one resulting from an occupational injury caused by exposure to environmental factors associated with employment. Occupational illnesses include acute and chronic illnesses or diseases that may be caused by inhalation, absorption, ingestion or direct contact.

Process Safety Event - An unplanned or uncontrolled loss from primary containment of any material including non-toxic and non-flammable materials (e.g., steam, hot condensate, nitrogen, compressed CO₂ or compressed air) from a process at a process safety management regulated facility. These are events that exceeded threshold values identified in **Appendix G**. Applies to U.S. Process Safety Management Facilities.

Process Safety Management (PSM) - regulation issued by OSHA that details engineering, operational, maintenance and safety requirements at larger processing facilities.

Recordable Incident - injury or illness incidents that include death, days away incident, restricted work or transfer to another job, medical treatment beyond first aid, fractured or cracked bone or tooth, punctured ear drum or loss of consciousness.

Restricted Workday Case (RWC) - work-related injury or illness that physically or mentally prevents an individual from performing any part of their normal job duties.

Serious Incident or Fatality (SIF) - an event or near miss that resulted in, or most likely could have resulted in, one of the following:

- Serious Incident
 - Life-threatening injury or illness
 - Life-altering injury or illness.
- Fatality



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2.4 General Terms and Definitions

Area - individual operating fields or components that collectively comprise a region, areas normally include an area office.

Business Unit - individual components that collectively comprise the U.S. Division. Business units may also be referred to as Basins.

Division - the division operations of Devon are Canada, Strategic-Services, Corporate, Facilities and Pipeline and U.S.

Enterprise Classification Structure - is part of Devon's strategic plan for managing information assets. The ECS is the published list of all records classes, the period of time for retaining each and their designated disposition.

Facility - a collection of structures, piping, valves, vessels, tanks, compression, and processing equipment located in close geographic proximity, that are involved directly in the development, production, processing or delivery of oil and gas to market (e.g., a tank battery, drill site, well-site, compressor station, pipeline and gas plant).

3.0 PROTOCOL		
3.1	Near Miss Reporting Near miss reporting is important to determine the actions that could prevent a near miss from potentially becoming an incident. Near miss reporting is an action to proactively identify, manage and prevent potential incidents for the organization.	
Step	Person In Charge (PIC)	Action
3.1.1	Employee/Contractors	Report near misses immediately to the PIC or line supervisor when they occur.
3.1.2	Reporting Person	Enter initial information into Shield via computer or mobile application as soon as possible.
3.1.3	Reporting Person	Send an email, by the end of the shift, containing the information listed below to the field EHS representative and supervisor. <ul style="list-style-type: none"> • Who • What • When • Where
3.1.4	Event Supervisor	Review information that is initially entered in the system, make any additions or modifications required.
3.1.5	Event Supervisor	Assign corrective actions in Shield to address/reduce potential for near miss to recur.
3.1.6	Event Manager	Review near miss record, determine if it meets the SIF potential criteria listed in Appendix A , classify and risk rank the event. The operations vice president will be the Shield event owner for all SIF events.



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3.2

Incident Reporting

Incident reporting and classification are important to determine the measures that will prevent the incident from recurring. Event managers, with input from operations supervisors, will make the determination on incident classification and SIF potential. The EHS managers have the final determination on classification. All incidents will be recorded in accordance with this protocol across all Devon operations.

Step	Person In Charge (PIC)	Action
3.2.1	Employee/Contractors	Report all incidents to the PIC or line supervisor immediately.
3.2.2	Employee/Contractors	Contact emergency services and render first aid, if trained to do so. Note: In the U.S., Axiom Medical Consulting - (877) 502-9466 can be used to provide injury treatment and advice for employees. When the system is contacted the injured person (IP) will discuss the nature of the injury with a medical professional. The medical professional will recommend a treatment course, and follow up with the IP at determined intervals. Additional details on Axiom can be found on the safety and environment Strata tab.
3.2.3	Employee/Contractors	Secure the area to prevent additional injuries or continued release.
3.2.4	Line Supervisor/Field EHS	Evaluate incident to determine if incident management team (IMT) activation is required based on area emergency response plans. Activate the IMT, when appropriate, to assist in managing the incident.
3.2.5	Incident Commander	Notify Emergency Management and Security Control when IMT is activated.
3.2.6	Line Supervisor	Make internal notification(s) according to the Internal Notification Requirements Based on Event Class Diagram (Appendix C & Appendix D).
3.2.7	Line Supervisor/Field EHS	Make required external notification(s) per the External Notification List (Appendix E). Note: Pipeline incidents or accidents may be subject to federal and/or provincial/state reporting requirements. Refer to Devon's Pipeline Operating & Maintenance (O&M) Manuals for specific reporting requirements. Hyperlinks to the manuals are located in 6.0 References. Note: Provincial and state notification(s) must be completed in accordance with those regulations.



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3.2.8	Employee/Line Supervisor	<p>Preserve information and the incident scene, as long as it does not continue to contribute to a hazard or hazardous situation to aid in a potential investigation. The incident scene will be preserved until approval is given by supervision.</p> <p>Note: Preserving information may include the following:</p> <ul style="list-style-type: none">• Rope off or barricade the scene, lock doors or gates, and exclude unnecessary personnel. Post security personnel if needed.• Note evidence that may have been disturbed by the emergency response.• Start recording the names and contact information of witnesses.• In some cases initial statements may need to be taken by the employee or line supervisor prior to the arrival of the investigation team lead/lead investigator.
3.2.9	Reporting Person	<p>Enter initial information into Shield via computer or mobile application as soon as possible.</p>
3.2.10	Reporting Person	<p>Send an email, by the end of the shift, containing the information listed below to the field EHS representative and supervisor.</p> <ul style="list-style-type: none">• Who• What• When• Where
3.2.11	Event Supervisor	<p>Review information that is initially entered in the system, make any additions or modifications required.</p>
3.2.12	Line Supervisor (PSM Facilities)	<p>Review the Process Safety Management (PSM) Process Safety Events listed in Appendix G.</p> <p>Note: If a process safety event occurs, then select "PSM" under Category section on the Basic Information Screen within Shield. Tier I releases will be classified as a class IV and Tier II releases will be classified as class III.</p> <p>Note: These threshold values are separate from the OSHA PSM Regulations (29CFR1910.119). Step 3.3.6 contains investigation requirements based on the OSHA PSM regulations.</p>
3.2.13	Event Manager	<p>Review the event information, determine if it meets the SIF potential criteria listed in Appendix A. Classify incidents using the Event Classification Table (Appendix B) and the First Aid Treatment List (Appendix F). Risk rank the event using the Devon EHS Risk Matrix. The operations vice president will be the Shield event owner for all SIF events.</p>
3.2.14	Event Advisor	<p>Review the information in Shield to ensure that it is correct and complete. Confirm the classification of an incident.</p>



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3.2.15	Field EHS	<p>Review contractor injuries, if applicable using the Contractor Injury Metric Recording Guide (Appendix H) to determine if the injuries will be included in the EHS metrics.</p> <p>Note: Contractor injuries that are not included in the EHS metrics will be included in Shield for information only. Select “No Treatment” as the <i>Injury Classification</i>, under the <i>Injured Person</i> details.</p>
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3.3	<p>Devon Investigation Process Investigations are one of the methods that are used to improve environmental and safety performance.</p>	
Step	Person In Charge (PIC)	Action
3.3.1	EHS Supervisor	<p>Determine if an investigation is going to be conducted based on the event (near miss & incident) details. Refer to step 3.3.4 for SIF event investigation requirements.</p> <p>Note: Investigation is not required for non-SIF events unless the BU elects to conduct one.</p>
3.3.2	EHS Supervisor	<p>Submit a SIF Investigation Waiver Request Form (Attachment C) to the appropriate EHS manager to waive the SIF investigation requirement.</p> <p>Note: Refer to step 3.3.11 for additional documentation requirements.</p>
3.3.3	EHS Supervisor	<p>Coordinate with operations on the assignment of an investigation team lead/lead investigator.</p> <p>Note: Consider using an investigation lead from outside of the operating area for SIF events.</p>
3.3.4	Investigation Lead	<p>Conduct a formal investigation for all SIF events (near misses and incidents). A formal investigation will include the following:</p> <ul style="list-style-type: none"> • Facilitator trained in the investigation technique/methodology (e.g., TapRoot, root cause analysis (RCA) that will be used. • Team of individuals consisting of EHS, operational support and technical resources, as needed. • Documentation identified in step 3.3.11.
3.3.5	Field EHS/Line Supervisor	<p>Perform a formal investigation on agency non-compliance events that have the potential to be Class 4 or 5 in the Event Classification Table (Appendix B).</p> <p>Investigate other agency non-compliance as appropriate, depending on the non-compliance, enter investigation and corrective actions in Shield.</p>
3.3.6	Field EHS/Line Supervisor	<p>Perform a formal investigation for events at a PSM facility which resulted in, or could have resulted in a catastrophic release of highly hazardous chemical in the workplace.</p> <p>Note: This is separate from identifying if the event has exceeded a process safety event threshold listed in Step 3.2.11 and Appendix G.</p>



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3.3.7	Investigation Team Lead/Lead Investigator	<p>Initiate the investigation process within the time limits listed in the table below.</p> <table border="1" data-bbox="589 464 1513 594"> <thead> <tr> <th data-bbox="589 464 1052 495">Incident Type</th> <th data-bbox="1055 464 1513 495">Investigation Initiation Timeframe</th> </tr> </thead> <tbody> <tr> <td data-bbox="589 499 1052 531">PSM Facility (Step 3.3.6)</td> <td data-bbox="1055 499 1513 531">48 Hours</td> </tr> <tr> <td data-bbox="589 535 1052 567">Incident with SIF Potential</td> <td data-bbox="1055 535 1513 567">2 Business Days</td> </tr> <tr> <td data-bbox="589 571 1052 594">Near Miss with SIF Potential</td> <td data-bbox="1055 571 1513 594">7 Days</td> </tr> </tbody> </table> <p>Note: The Legal Department may issue guidance for significant incidents. Note: The Investigation Guide (Appendix I) contains guidance on gathering information after an incident using the 4 P's (people, paper, parts and position).</p>	Incident Type	Investigation Initiation Timeframe	PSM Facility (Step 3.3.6)	48 Hours	Incident with SIF Potential	2 Business Days	Near Miss with SIF Potential	7 Days
Incident Type	Investigation Initiation Timeframe									
PSM Facility (Step 3.3.6)	48 Hours									
Incident with SIF Potential	2 Business Days									
Near Miss with SIF Potential	7 Days									
3.3.8	Investigation Lead	Complete investigation within 30 days of the event if possible.								
3.3.9	Investigation Team Lead/Lead Investigator	<p>Conduct a management review of the SIF investigation findings with the responsible supervisor, area manager, EHS manager and business unit vice-president.</p> <p>Note: The Management Review Guide (Appendix J) contains overview information for the management review process.</p>								
3.3.10	Event Manager	Ensure that corrective actions have been developed and assigned at the conclusion of the management review meeting.								
3.3.11	Investigation Lead/Lead Investigator	<p>Document the following information in Shield.</p> <table border="1" data-bbox="589 1136 1513 1562"> <tbody> <tr> <td data-bbox="589 1136 834 1360">Formal Investigation</td> <td data-bbox="837 1136 1513 1360"> Corrective actions Root cause(s) including comments for the cause(s) identified. Upload associated investigation material, photos, statements, reports and presentations in Shield. </td> </tr> <tr> <td data-bbox="589 1365 834 1476">Informal Investigation</td> <td data-bbox="837 1365 1513 1476"> Corrective actions - if applicable Root cause(s) including comments for the cause(s) identified. </td> </tr> <tr> <td data-bbox="589 1480 834 1562">No Investigation</td> <td data-bbox="837 1480 1513 1562"> No corrective actions Upload the SIF Investigation Waiver Form. </td> </tr> </tbody> </table>	Formal Investigation	Corrective actions Root cause(s) including comments for the cause(s) identified. Upload associated investigation material, photos, statements, reports and presentations in Shield.	Informal Investigation	Corrective actions - if applicable Root cause(s) including comments for the cause(s) identified.	No Investigation	No corrective actions Upload the SIF Investigation Waiver Form.		
Formal Investigation	Corrective actions Root cause(s) including comments for the cause(s) identified. Upload associated investigation material, photos, statements, reports and presentations in Shield.									
Informal Investigation	Corrective actions - if applicable Root cause(s) including comments for the cause(s) identified.									
No Investigation	No corrective actions Upload the SIF Investigation Waiver Form.									



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3.4 Contractor Incident Investigation

As a general rule, contractors Devon hires are independent contractors. As independent contractors, they are responsible for investigating any incidents involving their equipment and personnel while employed by Devon, just as they are responsible for the performance of their work. Depending on the incident circumstances, Devon may conduct its own investigation or, request to lead or participate with the contractor in the subsequent investigation to ensure a thorough investigation to identify all root causes, contributing factors and potential corrective actions necessary to avoid the incident recurring on Devon locations. Devon will typically conduct or participate in the subsequent incident investigation of contractor incidents involving:

- Devon company employees;
- Damage to Devon property, facilities or assets;
- More than one contract company; or
- Death, severe injury, SIF or significant property damage; or significant spill

While Devon employees may conduct or participate in initial fact-gathering activities without Legal Department involvement, the Legal Department will be contacted for legal guidance before initiating or participating in investigations of contractor incidents. Incident investigation results and findings will be reviewed by appropriate Devon management and legal department once they are completed.

Step	Person In Charge (PIC)	Action
3.4.1	EHS Manager	Engage Devon's Legal Department for guidance prior to participating in a contractor's investigation or initiating a Devon investigation for a contractor incident.
3.4.2	Investigation Team Lead/Lead Investigator	Conduct a management review of the SIF investigation findings with the responsible supervisor, area manager, EHS manager and business unit vice-president. Note: The Management Review Guide (Appendix J) contains overview information for the management review process.

3.5 Post Incident Drug Testing

Step	Person In Charge (PIC)	Action
3.5.1	Line Supervisor	Review the Drug and Alcohol Abuse Prevention and Testing Policy to determine if an employee is required to undergo post-accident drug testing. Note: For Canada refer to DCC-EHS-PRA-0056 Alcohol and Drug Practice. Note: The Devon Drug and Alcohol Abuse Prevention and Testing Policy contains specific addendums for Oklahoma which must be followed. Note: Some employees are identified as DOT employees and they are subject to Devon's (DOT) PHMSA Drug & Alcohol Policy which has different post-accident testing requirements.



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3.6 Agency / Regulatory Non-Compliance

Agency / regulatory non-compliance findings or notices can be issued by local, provincial, state or federal government agencies. An agency non-compliance can be a notice of enforcement (NOE), notice of violation (NOV), citation, incident of non-compliance, or other written documentation of a failure to comply with regulatory requirements. Agency non-compliances arise from inspections, record reviews, site visits, public complaints and employee complaints.

Step	Person In Charge (PIC)	Action
3.6.1	Line Supervisor	Notify field EHS upon receiving an agency / regulatory non-compliance. Note: Traffic violations are not classified as agency non-compliances. Note: Provide Legal Dept. copies of agency non-compliance notices for all incidents classified as Class II and greater.
3.6.2	Field EHS	Review the agency / regulatory non-compliance, and classify the non-compliance according to the Event Classification Table (Appendix B).
3.6.3	Field EHS	Document the agency / regulatory non-compliance in Shield as an EHS assurance event.

4.0 RECORDKEEPING

Step	Person In Charge (PIC)	Action
4.1	Field EHS	Enter event reporting and investigation information into Shield and retain as defined below.

Record	File Location & Number	Retention Time	Records Management Enterprise Classification Structure Code
Event Reports	Shield	10 Years	EH50
Investigation Material	Shield	10 Years	EH50
Corrective Actions	Shield	10 Years	EH50

Note: The Records Management Enterprise Classification Structure Code is listed as a reference, which should be used when records are sent to stored records.

5.0 TRAINING REQUIREMENTS

Step	Person In Charge (PIC)	Action
5.1	Line Supervisor	Ensure all employees are trained on reporting requirements for incidents and near misses.



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REFERENCES

OSHA 1910.119 (PSM Regulation)
OSHA 1904 (Recordkeeping)
OSHA Recordkeeping Handbook
Devon Drug and Alcohol Abuse Prevention and Testing Policy
Devon (DOT) PHMSA Drug & Alcohol Policy
U.S. Department of Transportation (49 CFR Part 191 and 195 Subpart B)
Natural Gas Pipelines Operations & Maintenance Manual ([Hyperlink](#))
Hazardous Liquid and CO₂ Pipeline Operations & Maintenance Manual ([Hyperlink](#))



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Appendix A - SIF Potential Determination Tool

The SIF potential is based on what the potential outcome could have been. Do not factor the actual outcome into the determination of an incident having SIF potential.

Incident or Near Miss SIF

If yes to any of the following, **very likely** we have potential for SIF:

Did the incident involve:

1. Uncontrolled release of energy, e.g., high pressure lines, cable tension, stored energy?
2. Dropped object - heavy enough and high enough?
3. Heavy equipment operation, e.g., cranes, forklifts, backhoes, drilling and completion rigs?
4. Rotary equipment, e.g., pump jack, top drive, power swivels, power tongs (not grinders)?
5. Excavation, e.g., line strike, cave in and confined space entry?
6. Electricity, e.g., control panels, overhead power lines, buried cables?
7. Chemical exposure, e.g., IDLH, H₂S, CO, HCL, acid spray?
8. Fires or explosions?
9. Hydrocarbon or hazardous air releases?
10. Falls over 4' vertical (including stairs and ladders)?
11. Driving (Use Motor Vehicle Decision Tree)?
12. Exposure to temperature extremes (excessive heat or cold)?
13. Unsecured loads, usually associated with a move (e.g., loading pipe on a truck, moving with a crane)?

If yes to any of the following, very likely we do **not** have SIF potential:

Did the incident involve:

1. Fall from same level?
2. Hearing shift?
3. Particle in the eye?
4. Bites and stings?
5. Manual lifting?
6. Hand tools under manual force?
7. Small power tools, in most circumstances?
8. Discussion of SIF potential over 5 minutes?
9. Personal medical condition with all safety systems intact?



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Appendix A - SIF Potential Determination Tool (Continued)

Vehicle potential SIF will need to take into account the driver of the vehicle, passengers, other vehicles as well as, pedestrians.

Preventable Vehicle Incident SIF

If yes to any of the following, very likely we have potential for SIF:

Did the incident involve:

1. Proximity to vessels or lines?
2. Not aware of surroundings in public area?
3. Not aware of surroundings on job site and people working on location?
4. Did "crash calculator" indicate SIF for any occupant?
5. Loss of vehicle control e.g., distracted, loss of traction?
6. Cross traffic, e.g., in intersection, passing another vehicle?
7. Seat belt not worn?
8. Vehicle rolled over?
9. Proximity to cliffs, water to submerge, power lines, chemicals etc.?
10. Head on Collision

If yes to any of the following, very likely we do not have potential for SIF:

Did the incident involve:

1. Did "crash calculator" indicate non-SIF.
2. Low-speed collision with barrier protecting vessels or lines?
3. Discussion of SIF potential over 5 minutes?

The crash calculator can be accessed using the hyperlink below. There are instructions on the lower left hand side of the calculator.

[Vehicle Crash Calculator](#)

Environmental Incident SIF

If yes to any of the following, very likely we have potential for serious incident:

Did the incident involve:

1. A loss of well control or backflow from disposal well into environment?
2. A spill that had the potential to or did affect a National Park, National Grassland, Conservation Area, or other environmentally sensitive area?
3. A spill that had the potential to or did reach and enter surface water or groundwater?
4. A spill that has the potential for legal consequence, regulatory penalty, or a material remediation cost?
5. An air release/spill that had the potential to or resulted in an evacuation or shelter-in-place, or could have harmed the public?


If yes to any of the following, very likely we do not have potential for SIF:

Did the incident involve:

1. Spills and releases with a small, minimal amount of material being discharged.
2. Spills that were contained in secondary containment.
3. Releases to the air that would have dispersed and would have no negative impact to the public or facility workers.

Appendix B - Event Classification Table

Consequence	Class I	Class II	Class III	Class IV	Class V
Employee/Contractor Injuries	First-aid Case, Non-treatment, or Refused Treatment	Medical Treatment Only Cases, Modified Work, Restricted Duty or Job Transfer	Injuries or illness that result in Days Away	Permanently disabling injuries	Multiple permanently disabling injuries or Single Fatality
Environmental Impact	Spill <1 barrels (0.159m ³) OR <i>Unplanned release of gas or vapor that is not reportable to a Regulatory Agency</i>	Spill that is ≥ 1 and < 20 barrels (≥0.159m ³ and <3.2m ³) OR <i>Unplanned release of gas or vapor that is reportable to a Regulatory Agency</i>	Spill that is ≥ 20 barrels but ≤ 125 barrels (≥3.2m ³ and <20m ³) OR reportable to a Regulatory Agency or does not cause adverse environmental impact OR <i>Unplanned release of gas or vapor that is reportable to a Regulatory Agency and results in the emergency shutdown of a plant</i>	Spill that is > 125 barrels but ≤ 650 barrels (≥20m ³ and <103m ³) OR reportable to a Regulatory Agency, and causes environmental impact, or, impacts a water body, surface water or groundwater OR <i>Unplanned release of gas or vapor, that negatively impacts the public or worker safety,</i>	Spills > 650 barrels (≥103m ³) OR causes adverse environmental impact OR <i>Unplanned release of gas or vapor, that negatively impacts the public or worker safety,</i>
Motor Vehicle Incident	Vehicle incident damage ≤ \$5,000.00	Vehicle damage ≤ \$10,000.00	Vehicle damage > \$10,000.00, and ≤ \$50,000.00	Vehicle damage > \$50,000.00 and ≤ \$75,000.00	Vehicle damage > \$75,000.00

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Appendix B - Event Classification Table (Continued)

Property Damage	Property damage ≤ \$ 25,000	Property damage ≥\$ 25,000 <250,000	Property damage ≥ \$ 250,000 < \$ 2.5 MM	Property damage ≥ \$ 2.5 MM <25 MM	≥ \$ 25 MM
Regulatory Response (For Non-Compliance Event)	No regulatory agency notification	Inform notification to regulatory agency	Regulatory agency notification, regulatory enforcement, NOV or non-compliance	Regulatory agency notification, multi facility NOV or non- compliance or shut-in enforcement at a single facility or Formal charges	Notification to regulatory agency and shut-in enforcement at multiple facilities or formal charges of executive or company officers or refusal of future applications or licenses.
Public Receptors	No media attention likely	Local media attention possible	Local media attention, possible state media attention	State media attention with possible regional / national media attention	National media attention
Business Interruption	Mitigated without activation of facility emergency response plan	Results in a fire or required facility emergency response plan activation	Facility emergency response plan activation with outside mutual aid	Emergency response plan activation with outside mutual aid and corporate business interruption support	Outside mutual aid, Corporate Business Interruption support, Establish Unified Command with Regulatory Agencies


Note: Well Control events will be given the following classifications based on the level identified in the Well Control Emergency Response Plan.

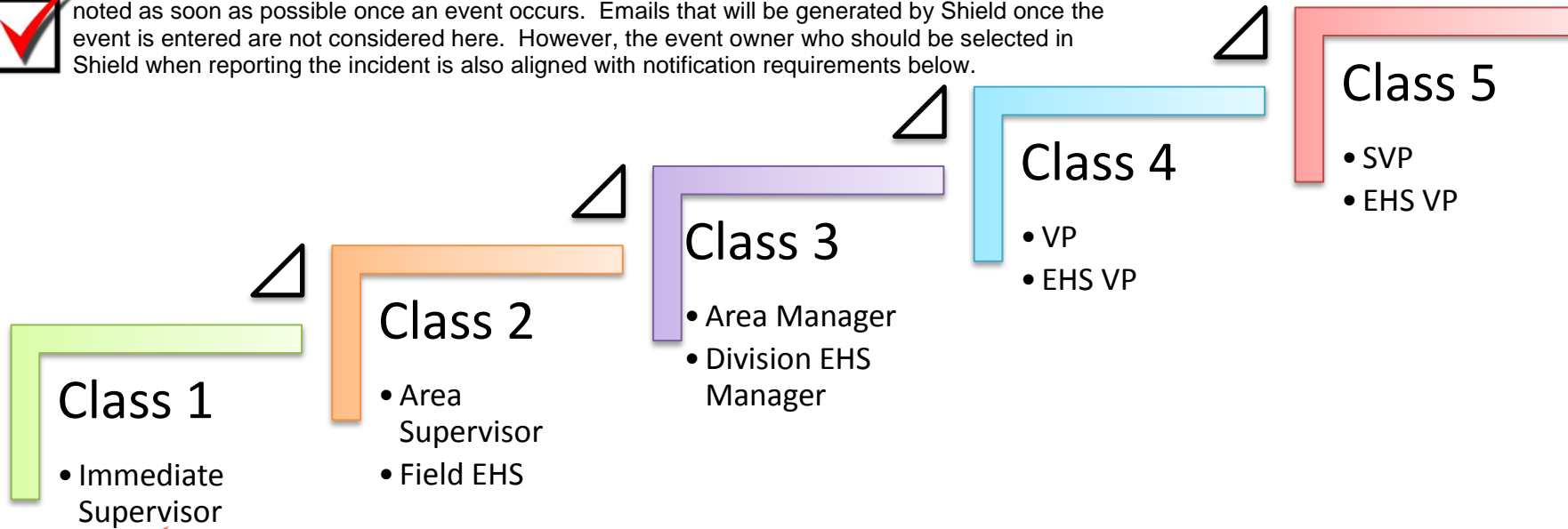
Level 1 = Class 2	Level 2 = Class 4	Level 3 = Class 5
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Event Types which are not specifically reference in a row above (e.g., equipment failure) are evaluated based on the associated consequences above.

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Appendix C: Internal Notification Requirements Based on Event Class

 These notifications (ex. phone calls) are made within each department up to at least the position noted as soon as possible once an event occurs. Emails that will be generated by Shield once the event is entered are not considered here. However, the event owner who should be selected in Shield when reporting the incident is also aligned with notification requirements below.



Notification Requirements based on Event Specifics:

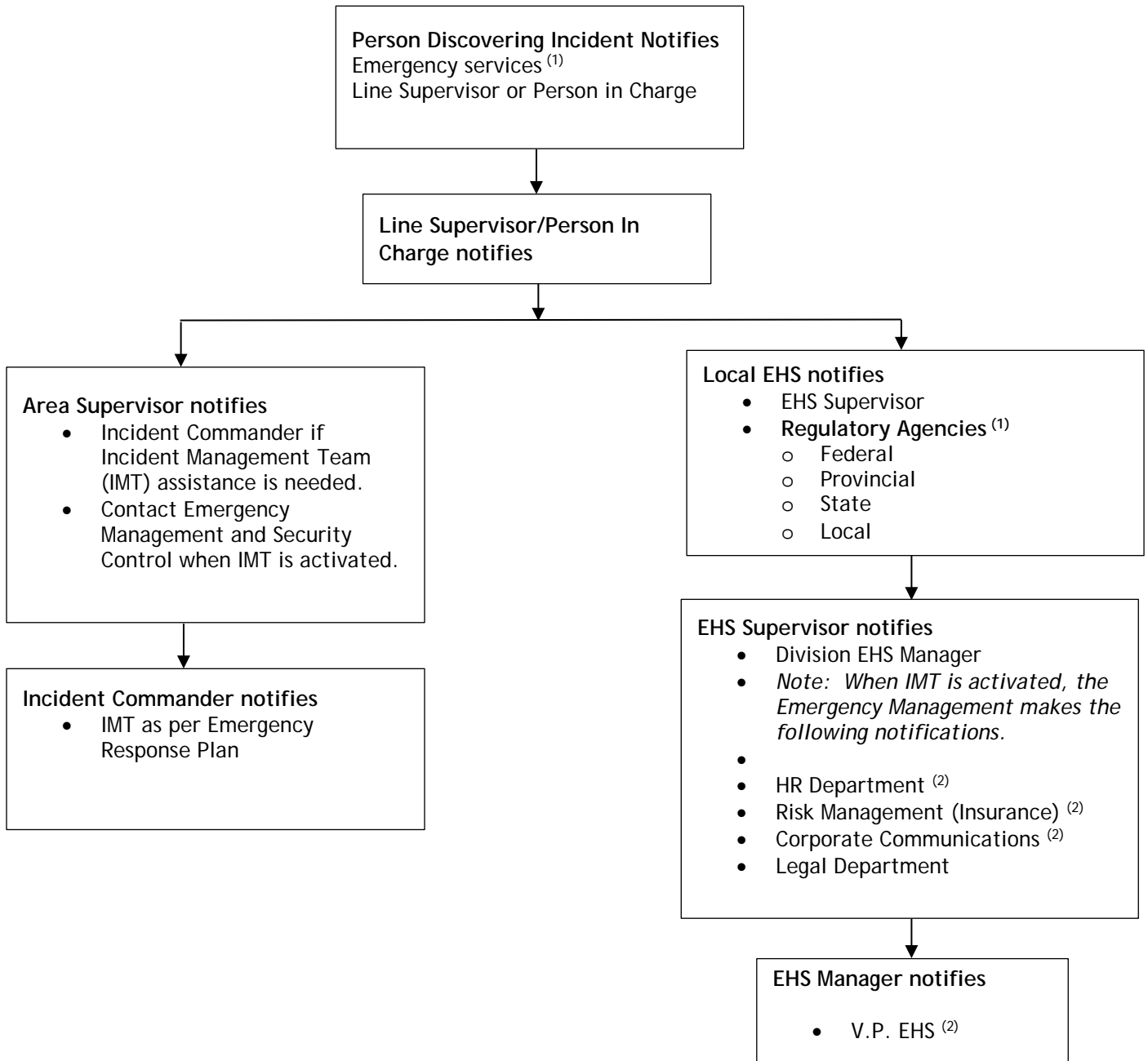
Notifications made internally/externally depending on the circumstances of the event.

Legal: when spills leave secondary containment, events that may result in government involvement, unresolved third party complaints, injuries, public complaints\exposures and other Incidents with potential legal action against Devon,
Insurance (Risk Management): If a Devon employee has been injured on the job.
Corporate Communications: If possible media attention or external communications may occur
Human Resources: When appropriate
Regulatory Agencies: Refer to Appendix E for details.



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Appendix D - Notification Flow Chart



⁽¹⁾ Notification made when required.

⁽²⁾ Notification made when appropriate.



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Appendix E - External Notification List

Federal and Regional Notification Table			
Agency	What to Report	When to Report	How to Report
Alberta			
	Injuries and incidents that result in a death; cause a worker to be admitted to hospital for more than two days; involve an unplanned or uncontrolled explosion, fire or flood that causes or has the potential to cause a serious injury or involves the collapse or failure of any component of a building or structure necessary for the structural integrity of the buildings or structure.	Immediately, or as soon as possible given the circumstances.	Notify the Government of Alberta's Workplace Health and Safety Contract Centre by telephone at 1 - 866-415-8690.
Spills and Releases	Unrefined product spill <ul style="list-style-type: none"> Greater than 2m³ on lease Any volume off lease (includes on ROW) Refined product spill <ul style="list-style-type: none"> Greater than 200 liters flammable liquid on lease Any volume off lease Any release that <ul style="list-style-type: none"> Has an impact, or potential to impact, surface water or groundwater Is causing, may cause, or has caused an adverse effect	Immediately upon confirmation of reportability	Alberta Energy Regulator 24 hour hotline 1-800-222-6514.
Approval Contraventions	Contravention of Alberta Environmental Protection and Enhancement Act Approval	Immediately	Director by telephone at 1-780-422-4505. Written follow up within 7 days.
Environmental Incidents	<ul style="list-style-type: none"> Off-lease odors (H₂S or hydrocarbon based) Temporary flaring that exceeds approval conditions: 30 10³m³ volume, greater than 4 hours or likely to cause public concern Venting at crude bitumen battery resulting in greater than 0.04m³/hour H₂S release rate 	Upon becoming aware of situation	Notify appropriate Alberta Energy Regulator field center



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- Black smoke (opacity >40%) for 6 minutes or more or potential adverse conditions
- Unauthorized airborne discharge with potential to exceed the Alberta AAQOs or cause public concern

British Columbia

Any accident that resulted in serious injury to or the death of a worker, involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system or excavation, involved the major release of a hazardous substance, or was an incident required by regulation to be reported.

Immediately
notify

Monday - Friday,
8:30 a.m. - 4:30 p.m.
1 888 621-SAFE (7233)
Toll-free in Canada
After hours (Richmond)
Toll-free 1 866 WCB-HELP (922-4357)

Bureau of Land Management (BLM) - United States

Major undesirable events

Oil, saltwater, and toxic liquid spills, or any combination thereof, which result in the discharge (spilling) of 100 or more barrels of liquid; however, discharges of such magnitude, if entirely contained within the facility firewall, may be reported only in writing pursuant to Section III. of this Notice;

Equipment failures or other accidents which result in the venting of 500 or more MCF of gas;

Within 24
hours

Phone call to the appropriate district engineer. Follow-up report written report within 15 days.



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Appendix E - External Notification List (Continued)

Federal and Regional Notification Table

Agency	What to Report	When to Report	How to Report
Bureau of Land Management (BLM) - United States			
	<p>Any fire which consumes the volumes as specified in above;</p> <p>Any spill, venting, or fire, regardless of the volume involved, which occurs in a sensitive area, e.g., areas such as parks, recreation sites, wildlife refuges, lakes, reservoirs, streams, and urban or suburban areas;</p> <p>Each accident which involves a fatal injury; and</p> <p>Every blowout (loss of control of any well) that occurs.</p>		
	<p><u>Other than major undesirable events</u></p> <p>Oil, saltwater, and toxic liquid spills, or any combination thereof, which result in the discharge (spilling) of at least 10 but less than 100 barrels of liquid in non-sensitive areas, and all discharges of 100 or more barrels when the spill is entirely contained by the facility firewall;</p> <p>Equipment failures or other accidents which result in the venting of at least 50 but less than 500 MCF of gas in non-sensitive areas;</p> <p>Any fire which consumes volumes of oil, saltwater, toxic liquid, gas above the ranges described above. ; and</p> <p>Each accident involving a major or life threatening injury.</p> <p>Spills or discharges in non-sensitive areas involving less than 10 barrels of liquid or 50 MCF of gas do not require an oral or written report; however, the volumes discharged or vented as a result of all such minor incidents must be reported in on the reported monthly on the Monthly Report of Operations.</p>	Within 15 days	Written report submitted to the appropriate district engineer.



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Appendix E - External Notification List (Continued)

Federal and Regional Notification Table


Agency	What to Report	When to Report	How to Report
Federal OSHA			
	Fatality or the in-patient hospitalization of three or more employees as a result of a work-related incident. Fatality caused by a heart attack at work.	Within 8 Hours	You must orally report by telephone or in person to the area office of OSHA, U.S. Department of Labor, which is nearest to the site of the incident. You may also use the OSHA toll-free central telephone number: 1-800-321-OSHA (1-800-321-6742).
	Work-related in-patient hospitalizations, amputations or losses of an eye.	Within 24 hours	
U.S. Federal Department of Transportation (Part 195.50 & 195.52)			
	Following the discovery of a release of transported hazardous liquid or carbon dioxide resulting in an explosion or fire (not intentionally set by operator), or the release of more than 5 gallons (19 liters) or more of hazardous liquid or carbon dioxide, the operator of the system shall give notice, in accordance with paragraph (b) of this section, of any failure that <ul style="list-style-type: none"> • Caused a death or a personal injury requiring hospitalization. • Resulted in either a fire or explosion not intentionally set by the operator. • Caused estimated property damage exceeding \$50,000. • Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water. • In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section. 	Earliest Practicable Moment	Reports are made by telephone to the National Response Center 800-424-8802 (in Washington, D.C., (202) 267-2675)
United States Federal Aviation Administration			
	If an emergency has the possibility of affecting aviation traffic, local law enforcement agencies have the authority to notify the FAA and request a temporary flight restriction for the area.	As soon as possible	866-835-5322

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Appendix E - External Notification List (Continued)

Federal and Regional Notification Table			
Agency	What to Report	When to Report	How to Report
United States National Response Center (NRC)			
	When any of the following occur: A release of oil or a hazardous substance to navigable waters A release of a hazardous substance to air in excess of the reportable quantity listed in 40 CFR §302.4 Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) hazardous substances are identified and regulated under 40 CFR Part 302	Immediate Notification	Reports are made by telephone to (800) 424-8802 or (202) 267-2675 or online reporting via the NRC website at http://www.nrc.uscg.mil/nrchp.html


State OSHA Reporting Requirements			
Agency	What to Report	When to Report	How to Report
New Mexico			
	Death of any employee from a work-related incident Work-related in-patient hospitalizations, amputations or losses of an eye. Note: While New Mexico will not adopt Federal OSHA's new notification requirements until January 2016, Devon has elected to proceed with the state notification.	Within 8 Hours Within 24 hours	Via Telephone Normal Working Hours : Phone: (505) 476-8700 Fax: (505) 476-8734 Outside normal working hours: (800) 321-6742
Wyoming			
	Death of any employee from a work-related incident Work-related in-patient hospitalizations, amputations or losses of an eye. Note: While Wyoming will not adopt Federal OSHA's new notification requirements until July 2015, Devon has elected to proceed with the state notification.	Within 8 Hours Within 24 hours	Via Telephone (307) 777-7786

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Appendix E - External Notification List (Continued)

Reporting and Remediation Guidance for Crude Oil/Condensate/Produced Water Spills

Contractor spills oil/produced water <u>on</u> our site				
Product	Agency Reporting	Internal Reporting	Remediation	Metric
Oil purchased at our location	Responsibility of Contractor if they purchased oil at our site	Will go into our system as an property damage regardless of volume	Responsibility of Contractor	Will not be counted on our spills/volume/lost
Oil being transported by contractor	Responsibility of Devon to report	Will go into Shield as a spill	Responsibility of Contractor	Will be counted against our spills/volume/lost
Produced Water	Responsibility of Devon to report	Will go into Shield as a spill	Responsibility of Contractor	Will be counted against our spills/volume/lost
Contractor spills oil/produced water on other's ground - <u>away</u> from our site				
Product	Agency Reporting	Internal Reporting	Remediation	Metric
Oil purchased at our location	Responsibility of Contractor if they purchased oil at our site	Will not go into Shield as a spill	Responsibility of Contractor	Will not be counted on our spills/volume/lost
Oil being transported by contractor	Responsibility of contractor to report to DOT and Devon to report to Commissions/Env Agencies	Will go into Shield as a spill	Responsibility of Contractor	Will be counted against our spills/volume/lost
Produced Water	Responsibility of Contractor	Will not go into Shield as a spill	Responsibility of Contractor	Will not be counted on our spills/volume/lost

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Appendix F - First Aid Treatment List⁽¹⁾

The following treatments are considered first aid; all other treatments are considered medical treatment and will be recorded as such.

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);
- Using hot or cold therapy;
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.);
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign bodies from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- Using finger guards;
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
- Drinking fluids for relief of heat stress.

Note: The follow are not considered medical treatment for record keeping purposes,

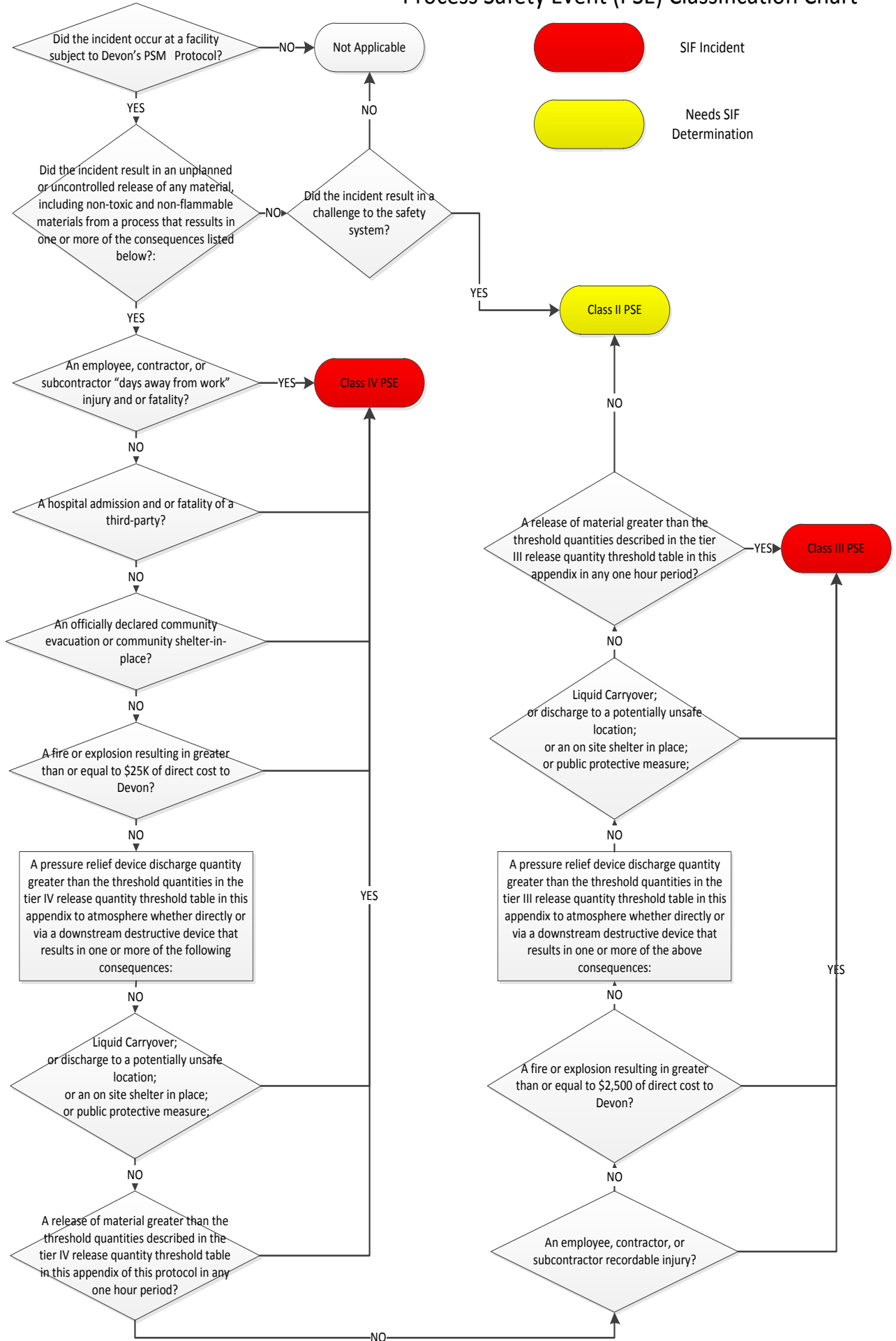
- Visits to a physician or other licensed health care professional solely for observation or counseling; and the conduct of diagnostic procedure, such as x-rays and blood test, including the administration of prescription medications used solely for diagnostic purposes (e.g., eye drops to dilate pupils), are not considered medical treatment.

Additional information, including interpretations, on OSHA Recordkeeping requirements can be found on OSHA's Recordkeeping website. <https://www.osha.gov/recordkeeping/index.html>

⁽¹⁾ List of first aid treatments from OSHA 1904.7(b)(5)(ii)

Appendix G - Process Safety Event Threshold Values

Process Safety Event (PSE) Classification Chart



Appendix G - Process Safety Event Threshold Values (continued)

Class IV Material Release Threshold Quantities				
Threshold Release Category	Material Hazard Classification ^{a,c,d}	Example Devon Chemical(s)	Outdoor Release Threshold Quantity	Indoor ^b Release Threshold Quantity
1	TIH Zone A Materials	NA	11 lb (5 kg)	5.5 lb (2.5 kg)
2	TIH Zone B Materials	Hydrogen Sulfide (H ₂ S)	55 lb (25 kg)	27.5 lb (12.5 kg)
3	TIH Zone C Materials	Sulfur Dioxide (SO ₂)	220 lb (100 kg)	110 lb (50 kg)
4	TIH Zone D Materials	NA	440 lb (200 kg)	220 lb (100 kg)
5	Flammable Gasses or Liquids with Initial Boiling Point ≤ 95°F (35°C) and Flash Point < 73°F (23°C) or Other Packing Group I Materials excluding strong acids/bases	Methane, Ethane, Propane, Iso Butane, Normal Butane, 10# RVP Gasoline, 14# RVP Gasoline, Natural Gas, Y-Grade Liquids	1100 lb (500 kg)	550 lb (250 kg)

Appendix G - Process Safety Event Threshold Values (continued)

6	Liquids with Initial Boiling Point > 95°F (35°C) and Flash Point < 73°F (23°C) or Other Packing Group II Materials excluding moderate acids/bases	Methanol, 10# RVP Gasoline, Stabilized Natural Gas Condensate	2200 lb (1000 kg) or 7 bbl	1100 lb (500 kg) or 3.5 bbl
7	Liquids with Flash Point ≥ 73°F (23°C) and ≤ 140°F (60°C) or Liquids with Flash Point > 140°F (60°C) release at a temperature at or above Flash Point strong acids/bases or Other Packing Group III Materials	Stabilized Natural Gas Condensate, Chemtherm 550 (Heat Medium Oil), Lean Oil, Ethylene Glycol, Triethylene Glycol, Amine, Diesel	4400 lb (2000kg) or 14 bbl	2200 lb (1000 kg) or 7 bbl

^a Many materials exhibit more than one hazard. Correct placement in Hazard Zone or Packing Group shall follow the rules of DOT 49 CFR 173.2a [14] or UN Recommendations on the Transportation of Dangerous Goods, Section 2

^b A structure composed of four complete (floor to ceiling) walls, floor, and roof.

^c For solutions not listed on the UNDG, the anhydrous component shall determine the TIH zone or Packing Group classification. The threshold quantity of the solution shall be back calculated based on the threshold quantity of the dry component weight.

^d For mixtures where the UNDG classification is unknown, the fraction of threshold quantity release for each component may be calculated. If the sum of the fractions is equal to or greater than 100 %, the mixture exceeds the threshold quantity. Where there are clear and independent toxic and flammable consequences associated with the mixture, the toxic and flammable hazards are calculated independently.

Class III Material Release Threshold Quantities				
Threshold Release Category	Material Hazard Classification ^{a,c,d}	Example Devon Chemical(s)	Outdoor Release Threshold Quantity	Indoor ^b Release Threshold Quantity
1	TIH Zone A Materials		1.1 lb (0.5 kg)	0.55 lb (0.25 kg)



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2	TIH Zone B Materials	Hydrogen Sulfide (H ₂ S)	5.5 lb (2.5 kg)	2.8 lb (1.2 kg)
3	TIH Zone C Materials	Sulfur Dioxide (SO ₂)	22 lb (10 kg)	11 lb (5 kg)
4	TIH Zone D Materials		44 lb (20 kg)	22 lb (10 kg)
5	Flammable Gasses or Liquids with Initial Boiling Point ≤ 95°F (35°C) and Flash Point < 73°F (23°C) or Other Packing Group I Materials excluding strong acids/bases	Methane, Ethane, Propane, Iso Butane, Normal Butane, 10# RVP Gasoline, 14# RVP Gasoline, Natural Gas, Y-Grade Liquids	110 lb (50 kg)	55 lb (25 kg)
6	Liquids with Initial Boiling Point > 95°F (35°C) and Flash Point < 140°F (60°C) or Liquids with Flash Point > 140°F (60°C) release at a temperature at or above Flash Point or Other Packing Group II and III Materials excluding moderate acids/bases or Strong acids and bases	Stabilized Natural Gas Condensate, Chemtherm 550 (Heat Medium Oil), Lean Oil, Ethylene Glycol, Amine, Triethylene Glycol, Methanol, 10# RVP Gasoline,	220 lb (100 kg) or 1 bbl	110 lb (50 kg) or 0.5 bbl
7	Liquids with Flash Point > 140°F (60°C) released at a temperature below Flash Point or Moderate acids/bases	Diesel	2200 lb (1000kg) or 10 bbl	1100 lb (500 kg) or 5 bbl


It is recognized that threshold quantities given in kg and lb or in lb and bbl are not exactly equivalent. Companies should select one of the pair and use it consistently for all recordkeeping activities.

^a Many materials exhibit more than one hazard. Correct placement in Hazard Zone or Packing Group shall follow the rules of DOT 49 CFR 173.2a [14] or UN Recommendations on the Transportation of Dangerous Goods, Section 2

^b A structure composed of four complete (floor to ceiling) walls, floor, and roof.

^c For solutions not listed on the UNDG, the anhydrous component shall determine the TIH zone or Packing Group classification. The threshold quantity of the solution shall be back calculated based on the threshold quantity of the dry component weight.

^d For mixtures where the UNDG classification is unknown, the fraction of threshold quantity release for each component may be calculated. If the sum of the fractions is equal to or greater than 100 %, the mixture exceeds the threshold quantity. Where there are clear and independent toxic and flammable consequences associated with the mixture, the toxic and flammable hazards are calculated independently.

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Appendix H - Contractor Injury Metric Recording Guide

Contractor recordable injuries are recorded and tracked to measure the effectiveness of Devon's Contractor Management Program, along with the Contractors' EHS Management System. Tracking injuries after they occur is a lagging metric, (e.g., looking back in the rear view mirror). This document provides a consistent method for classifying and recording contractor injuries in Devon's EHS Metrics. Contractor injuries that require medical aid exceeding the treatments in the First Aid Treatment List (**Appendix F**), will be recorded and classified in Shield as injuries.

Contractors have the primary responsibility to classify their work-related injuries. In the event that the contractor and Devon do not agree on the injury classification, Devon will record the injury internally in accordance with the established record keeping requirements.

While there are many different types of personnel on location at various times certain types, and certain contractor activities are excluded from the internal recording requirements. Those exclusions include the following:

- Supply delivery personnel who do not charge time or labor,
- Vending machine stock and repair personnel,
- Delivery drivers, (e.g., UPS, FedEx),
- Product haulers (e.g., oil, condensate) who are under the contract of the purchaser,
- Contractors traveling on public roadways, and
- Public utility employees working on their equipment that is on or at our locations (e.g., power, water, phone, gas.)

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Appendix I - Investigation Guide

Formal Investigation

A formal investigation is required for ALL SIF events. A formal investigation can also be completed on events that had a high classification or risk ranking. The investigation will be conducted by an investigation team. The team will follow a documented methodology such as TapRoot. In addition, the investigation team lead will have the proper training prior to leading the process. The team size and participants will be dependent on the type, scale, and scope of the event. Depending on the severity of the event, team members may be pulled from other operational areas. This type of investigation will conclude with both a management review and a written report.

Informal Investigation

An informal investigation requires an analysis of the events, and understanding of the cause(s) of the event. In addition to identifying the cause, it also requires the identification of corrective action items. The results of the investigation and corrective actions need to be reviewed by the event owner.


Information Gathering

Collecting information after an incident occurs is a vital step in the investigation process. The greater period of time between the incident and when the information gathering begins, the more details are lost. If no information is collected after an event, the investigation is based on opinion rather than facts.

Paper

Paper evidence will need to be gathered after the event. This information could involve the following documents:

- Required safe work permits (e.g., hot work, confined space, etc.)
- Pre-Job Safety Meeting Notes
- Job Hazard Analysis
- Well File
- Job Work Order
- Policies, Procedures or Protocol related to the job task.
- Equipment Operating Manuals (e.g., pumpjack, fired heater, skill saw).
- Plot Plans
- Process Safety Information
- Process Data
- SCADA Data

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Positions

Review the positions of personnel and equipment on the worksite. If possible, take photos of the work site and equipment.

Questions to ask: What was the equipment’s proximity to the event? Was equipment correctly staged? What direction was the vehicle traveling? Did weather conditions and/or light conditions can play a factor in an event?

Equipment

When reviewing the parts information, consider if the correct part or equipment used.

Questions to ask: Was a 24 inch pipe wrench with a cheater used, instead of a 36 inch pipe wrench? What was the condition of the equipment? Was the equipment new, used, worn out, or broken? As a result of the event was any equipment damaged or broken? Is testing needed to understand a mechanical failure? Is the equipment rented, leased or owned? Is there an adequate Preventative Maintenance (PM) program in place?

People

Gather written witness statements from personnel involved in the incident on the day the event occurred. Witness statement should be written by each individual in their own words. The statements should be one to two paragraphs, describing the event. This would include the “who, what, where, and when” information.

In addition to the witness statements, personnel involved in the event need to be interviewed. This may include personnel who were not on location at the time of the event. For best interview results, assign 2 people to the interview team. Interviews should be conducted with personnel one at a time.

Information Analysis


After gathering all of the investigation information, each section will be reviewed by the team. Everyone must be provided the opportunity to ask questions about the information or certain details. Thorough evaluation is key. Ask and review information to determine if the data makes logical sense.

Timeline

Setting up a timeline of events preceding the event is a useful tool in understanding what happened. The SnapChart section within TapRoot can be used to document the timeline and sequence of events. These events can be analyzed to determine if they were or could have been a potential cause, or contributing factor.

Corrective Action Items

A corrective action will be designed to keep the event from recurring. Corrective actions will be categorized based on the hierarchy of control, focusing on using the most effective controls as reasonably practicable. The table below demonstrates proper assignment of control types.


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Sample Event: Injured Person fell off of piping while opening a valve.			
Corrective Action	Control Type	Effectiveness	Human Dependencies
The piping is reconfigured so the valve is accessed from ground level.	Elimination	Very High	None
A platform with side rails, mid-rails, and toe boards is installed.	Engineering	High	None
Protocol developed requiring the use of a ladder or movable platform.	Administrative	Moderate	Dependent on individual implementing protocol and availability of tools
Require Fall Protection ¹	PPE	Does not reduce the exposure, only mitigates impact	Moderate
Develop a safety alert and share at safety meeting. ²	Human Performance	Minimal	High

¹ PPE Controls must change a PPE requirement. If the corrective action is dealing with an individual who is not following current PPE requirements, then that would be considered a Human Performance Control

² Discussing an incident at a safety meeting is a one-time communication often used to ensure workers are aware of hazards and understand requirements. If changes are made to associated training or orientation, then this becomes a system change that would be considered an administrative control.

Conversations with the implementer, and investigation lead, should occur before entering the corrective action in Shield this communication ensures that the correct individual is assigned and they understand the action required.

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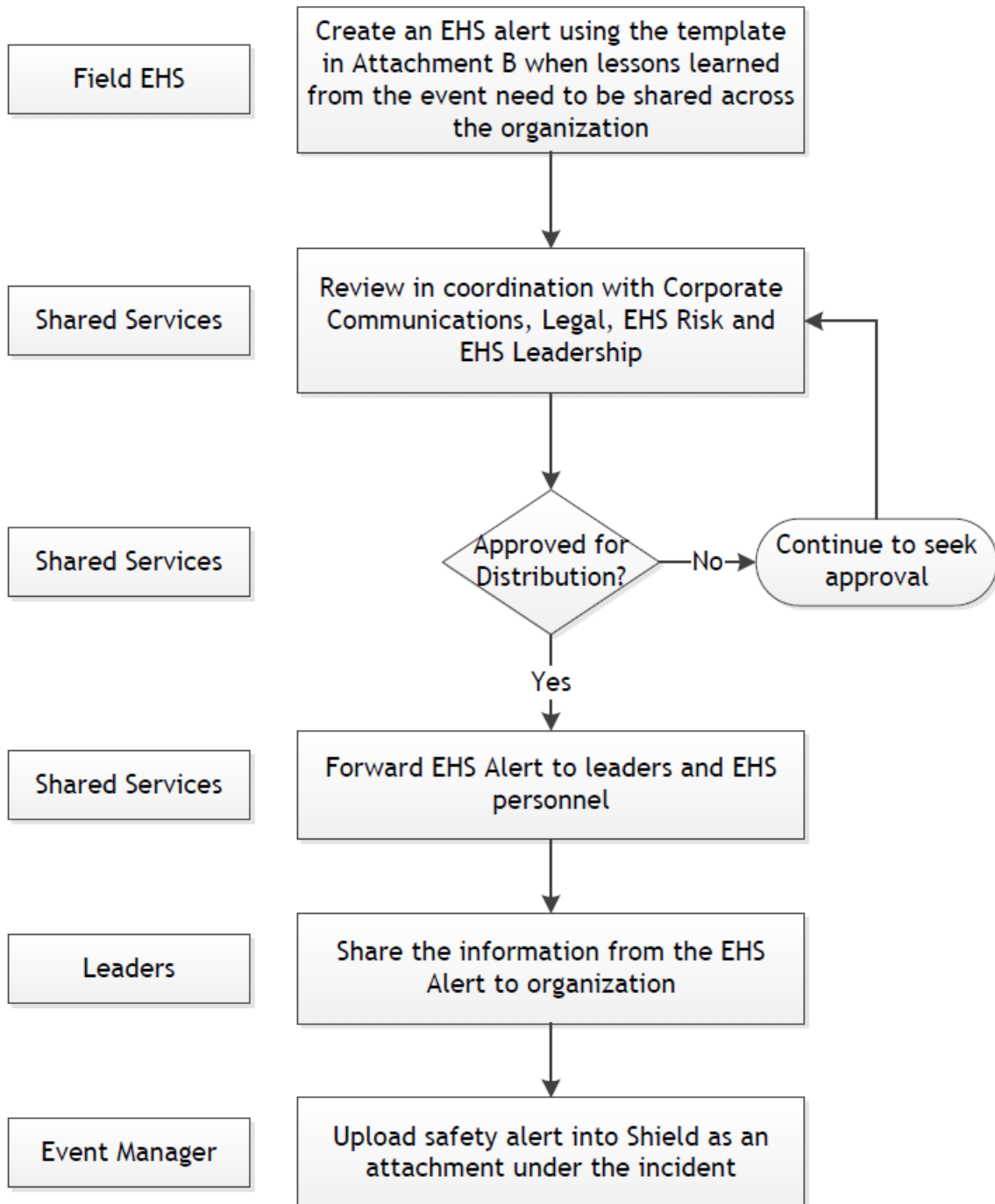
Appendix J - Management Review Guide


Management review is the process engaging members of management on investigation findings, the methods used, and recommended corrective actions. After the information is presented and reviewed, the management review team can then accept/approve the investigation report, or request that additional work be done in determining the root cause of the incident. Additionally, the management review team can approve, reject, or request changes to the recommended corrective actions.

When the investigation is led by a contractor, the contractor will provide the personnel to review their investigation to the management review team.

Appendix K - Safety Alert Review and Approval Flow Chart


EHS alerts include the following: safety alerts, risk management bulletins, environmental alerts, etc.




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Attachment A - Approval, Review and Modification History

Revision Number	Approved/Revised/Reviewed By	Approval/Revision/ Review Date	Description (Initial Approval, Revision or Review along with further details of revision if needed)
00	Richard Luedecke	12/13/12	Initial Approval
01	Jeremy Patman	04/09/13	<p>Administrative changes made to the decision tree, to consolidate to a single decision tree. Changes described below.</p> <p>#9 on the main Decision Tree will read as follows: "Hydrocarbon or hazardous air releases?" (No other changes will be made on the front page of the Decision Tree)</p> <p>#1 on the Vehicle Incident Decision Tree will read as follows: "Proximity to vessels or lines?" (No other changes to Vehicle Decision Tree)</p> <p>#1 and #7 will be removed from the Environmental Decision Tree that is being used by personnel out in the field to match what is currently in the protocol. (This will leave five items on the top part of the Environmental Decision Tree)</p>
02	Richard Luedecke	1/30/14	The notification of the Legal Department on three key events of Class II incidents (spills that leave secondary containment, incidents that may result in government enforcement, and any third party complaints), as well as; all Class III and IV events is now required.
03	Richard Luedecke	12/18/14	<p>There are two revisions to the protocol:</p> <ol style="list-style-type: none"> 1. Work-related in-hospitalizations, amputations or losses of an eye need to be reported to OSHA within 24-hours 2. Clarify in section 3.4 when to notify Devon legal following a contractor incident.
04	Richard Luedecke	05/01/15	Revises the DOT Operations and Maintenance link to take the user directly to the appropriate document rather than the Midstream and Marketing SharePoint site.
05	Richard Luedecke	09/02/16	Revised the protocol to align it with the Shield terminology and functions. This includes adding a

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			5 level of classification. Additionally, the following updates were made: <ul style="list-style-type: none"> • Added SIF Waiver form • Added requirement to risk rank events • Specified that Agency Non-Compliance events will require a formal investigation if it has the potential classification of 4 or 5. • Added information pertinent to classifying corrective actions. • Change "Vehicle Incident SIF" to "Preventable Vehicle Incident SIF" • Updates were made to the Environmental SIF Decision Tree • Added Classification conversion for Well Control Events based on the Well Control Emergency Response Plan
06	Jason Nieuwenhuis	1/23/17	Added two tables to Appendix E that define notification and remediation responsibilities for contractor/purchasers spills of produced water/oil/condensate. Replaced duplicate wording in last bullet point (step 3.3.4) with a reference to step 3.3.11. Updated the New Mexico OSHA notification phone number in Appendix E. Update the hyperlink to OSHA's recordkeeping website in Appendix F.

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Attachment B - EHS Alert Forms

Safety Alert Template (US)

http://communities.dvn.com/sites/EHS/_layouts/15/WopiFrame.aspx?sourcedoc=/sites/EHS/Documents/Safety%20Alerts%20and%20Information/Safety-Env%20Alert%20-%20Template.docx&action=default

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Attachment C - SIF Investigation Waiver Request Form

Hyperlink

<http://strata.dvn.com/SafetyAndEnv/SafetyAndHealth/Documents/SIF%20Investigation%20Waiver%20Request%20Form.xlsx>



SIF Investigation Waiver Request Form

Requestor: <input type="text"/>	Incident Number: <input type="text"/>	Event Date: <input type="text"/>
Working Activity: <input type="text"/>	Business Unit: <input type="text"/>	Contractor (when applicable): <input type="text"/>

Incident Description:

Contributing Factors:

Justification (Why?)

Management Decision: <input type="text"/>	Decision Date: <input type="text"/>
Additional Conditions	
Management Comments:	

Note: Upload this form in SHIELD