

ARE YOU IN THE “LINE OF FIRE?”

A Procedure for Managing the Program



SETTING THE STANDARD IN OIL AND GAS SAFETY

ENERGY
SAFETY
CANADA

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Energy Safety Canada is the national safety association for the oil and gas industry. We develop and support common industry safety standards, deliver effective learning systems, share data analysis and safety expertise with workers and employers, and advocate for worker health and safety. Our goal is the same as industry's – zero injuries, zero incidents.

AVAILABILITY

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1.0 INTRODUCTION

1.1 PURPOSE

This procedure outlines a process for developing and managing the Line of Fire program as part of a robust health and safety management system.

1.2 SCOPE

This procedure includes:

- Gaining leadership alignment
- Getting the sites ready
- Rollout of the program
- Post-program review and continual improvement activities

1.3 TARGET AUDIENCE

The target audience for this procedure is leaders, employees and/or contractors responsible for developing, implementing, managing, reviewing or sustaining some or all of the Line of Fire program.

1.4 EXPECTATIONS

This use of this procedure in whole or in part is at the discretion of each company. The leaders, sponsors and program managers of companies that choose to use it are expected to conform to this procedure.

Conformance is demonstrated through an annual management review or audit process that tests actual performance against the standards contained within this document.

2.0 PROGRAM IMPLEMENTATION AND REVIEW

2.1 PROGRAM PREPARATION

2.1.1 Getting Leadership Alignment

First, alignment must be achieved between the respective leadership teams regarding the goals and objectives of the program. Several resources are available at [EnergySafetyCanada.com](https://www.EnergySafetyCanada.com)

The Line of Fire program is divided into three categories:

- **Stored Energy:** Contact with store energy including pressure releases.
- **Striking Hazards:** Struck by or striking against an object, includes dropped objects.
- **Crushing Hazards:** Caught in, on or between an object, includes hand injuries.

To achieve alignment:

1. **Develop** a draft level of effort proposal using the template in Appendix A.
2. **Review** the draft level of effort proposal with leadership teams.
3. **Agree** on the level of effort with leadership teams.
4. **Identify** the following roles:
 - Sponsor for the program and/or
 - Program Manager(s)
5. **Advise** Energy Safety Canada of the names of the:
 - Sponsor and/or
 - Program Manager(s)

Once this step is complete: leaders are aligned on the goals and objectives of the program, and are ready to prepare the sites.

2.1.2 Getting the Sites Ready

By identifying site-specific requirements, the Sponsor and/or Program Managers can prepare the sites for the program.

1. Use the Implementation Readiness Checklist in Appendix B to verify that the appropriate departments are engaged and prepared with any materials.
2. Verify that a document retention process is in place.

3. Verify that the appropriate systems, processes, equipment and personnel competencies are in place for each component of the Line of Fire program as detailed in the Getting the Sites Ready Checklist in Appendix C.
4. Integrate Line of Fire into your existing health and safety management system. This could include modifications, or creating a new observations programs, data fields within your incident data collection system and formal and field-level hazard assessments.
5. If not already in place, consider the adoption of Energy Safety Canada's 10 Life Saving Rules. Although not required as part of the Line Fire Program, the rules – specifically the Line of Fire rule – are well aligned to support the program.
6. Order additional resources and tools needed for the work site/work area from Energy Safety Canada's program store: <https://escsafety.devcogroup.com/>
7. Create a central repository for Line of Fire materials, e.g. website

Once this step is complete: the company is ready to rollout of the Line of Fire Program.

2.2 PROGRAM ROLLOUT

The following is a suggested approach to engage leaders and workers in the implementation of this program.

1. **Deliver** the program materials based on the rollout schedule below (use the checklist in Appendix D). Tailor the timing of the meetings to fit the company (may vary from day to day or month to month to cover the materials).
2. **Capture** learnings or questions from the discussion at the end of each activity package using the form in Appendix E. Ensure follow-up on each item and implement corrective actions to mitigate risks as appropriate. Conduct inspections and hazard hunts using the inspection templates in Appendix F.

Timing	Activity Package and Resources
Meeting 1	<ul style="list-style-type: none">• Leadership Engagement, Case for Change, Roles and Responsibilities
Meeting 2	<ul style="list-style-type: none">• Hazard Identification and Control Refresher• Activity Package Follow-up and Learnings
Meeting 3	<ul style="list-style-type: none">• Pressure Releases Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 4	<ul style="list-style-type: none">• Dropped Objects Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 5	<ul style="list-style-type: none">• Moving Objects Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 6	<ul style="list-style-type: none">• Vehicles Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 7	<ul style="list-style-type: none">• Crushing Hazard and Energy Isolation Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 8	<ul style="list-style-type: none">• Hand Injury Prevention Activity Package• Activity Package Follow-up and Learnings• Hazard Hunt/Inspection
Meeting 9	<ul style="list-style-type: none">• Program Learnings and Continuous Improvement• Activity Package Follow-up and Learnings

3. **Maintain** the company's Line of Fire webpage, which includes links to relevant program materials listed on the <https://escsafety.devcogroup.com/> website.

Once this step is complete, the company is ready for ongoing review and improvement of the Line of Fire program.

2.3 PROGRAM REVIEW AND IMPROVEMENT

Following the completion of the activity packages throughout a Functional Area, leaders will review the program to ensure continuous improvement and act on any learnings.

1. **Plan** a post-program review using the summary of post-program roles and responsibilities in Appendix G and record your findings in the worksheet in Appendix H.
2. **Request** input from all delegated representatives (Sponsor, Leaders and Program Managers).
3. **Focus** on the following areas:

Focus Area	Specific Topics for Inclusion
Communications	<ul style="list-style-type: none">• Safety stories• Statistics• Safety tweets
Program Effectiveness	<ul style="list-style-type: none">• Serious injury and fatality statistics• Near misses with the potential for serious incident (PSI)• Data trends, including:<ul style="list-style-type: none">– Mechanism of injury– Sub-mechanism of injury– Body parts involved– Locations
Program Management	<ul style="list-style-type: none">• Positive findings• Negative findings• Areas for process improvement

4. **Assess** any changes identified during the lessons learned process to determine the value of these changes to future campaigns using a cost/benefit evaluation.
5. **Communicate** these learnings to Energy Safety Canada:
 - Program performance
 - Future program improvements

Once this step is complete, the results should be used to improve the program each year.

3.0 ROLES AND RESPONSIBILITIES

Role	Responsibilities
Energy Safety Canada	<ul style="list-style-type: none">• Act as an industry champion for the Line of Fire program.• Provide strategic guidance and support to leadership teams.• Collect, analyze and report to leadership teams on Line of Fire data.• Work with leadership teams to incorporate learnings where appropriate.
Sponsor	<ul style="list-style-type: none">• Serve as the sponsor for the Line of Fire program.• Oversee preparation and delivery of the Line of Fire through all steps and activity packages.• Provide guidance and support to leaders.
Leaders	<ul style="list-style-type: none">• Maintain the Line of Fire program.• Support the business during the “Leadership Alignment” phase (Appendix A).• Provide specialist advice to sponsors and/or program managers as required/requested during “Getting the Sites Ready” phase (Appendices B and C).• Oversee delivery of material during the “Supporting Communications” phase (Appendices D, E and F).• Initiate “Improving the Program” after implementation of the program (Appendices G and H).• Provide a summary of program results to leaders.
Program Managers	<ul style="list-style-type: none">• Act as champions for the Line of Fire program in their respective business through all phases.• Support the operational delivery of the Line of Fire program as required.• Work with the business to support and resolve line of fire issues identified in the workplace.• Facilitate input into the annual lessons learned process.• Communicate results of the Line of Fire program to their respective leadership teams.

APPENDIX A: LEADERSHIP ALIGNMENT CHECKLIST

DESCRIPTION			
Date Started:	/ /	Date Completed:	/ /
	Year Month Date		Year Month Date
Main Purpose for this planning checklist:	Effective implementation and on-going support of the Line of Fire program		
Facilitated By: (Team Member)		Position: (Team Member)	
Leader:		Associated Functional Area(s):	

1.0 LEADERSHIP ENGAGEMENT					
#	Item Description	Not Planned and/or not on schedule	Planned and/or on schedule	Complete	Timing and Comments
1.1	Leadership team and Sponsor meeting to draft upcoming year's level of effort proposal				
1.2	Area business unit leadership team meeting				

2.0 LEVEL OF EFFORT IDENTIFICATION					
#	Item Description	Not Planned and/or not on schedule	Planned and/or on schedule	Complete	Timing and Comments
2.1	Review draft level of effort and agree on upcoming year's program				

3.0 RESOURCE ALLOCATION					
#	Item Description	Not Planned and/or not on schedule	Planned and/or on schedule	Complete	Timing and Comments
3.1	Identify leaders; allocate resources and sponsor and communicate expectations				

4.0 COMMUNICATION MATERIALS ORDERED					
#	Item Description	Not Planned and/or not on schedule	Planned and/or on schedule	Complete	Timing and Comments
4.1	Leaders to identify communication material needs and order as needed https://escsafety.devcogroup.com/				

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APPENDIX B: READINESS CHECKLIST

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Leadership team engaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management of change plan developed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communications plan developed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Internal communications plan 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stakeholders engaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Health and safety team Communications team Learning and training teams Key service providers (contractors) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change leaders identified per Functional Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Rollout team identified Identified materials to be changed Training materials Standards/procedures Stickers Signs Banners Other materials 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rollout materials identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rollout materials developed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX C: GETTING THE SITES READY CHECKLIST

DESCRIPTION						
Date Started:	/	/		Date Completed:	/	/
	Year	Month	Date		Year	Month Date
Main purpose for this planning checklist: Ensuring that the sites are able to participate in each activity package.						
Facilitated By: (Team Member)				Position: (Team Member)		
Leader:				Functional Area:		
DOCUMENT RETENTION POLICY AND PROGRAM						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
A Document Retention Policy and Program is used						
FIELD LEVEL HAZARD ASSESSMENT						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Field Level Hazard Assessment (FLHA) includes line of fire						
Formal Hazard/Risk Assessment Program includes line of fire. This may also include other formal risk assessment processes such as Hazop, Layers of Protection Analysis, etc.						
Line of fire and dropped objects can be reported within incident management systems						
Safety critical has been defined (equipment, procedures, etc.)						
Fit for duty policy is in place						
PRESSURE RELEASES						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Tools needed to verify zero energy are in place (gas detection, pressure meters, etc.)						
Workers have necessary PPE to control secondary hazards (chemicals, noise, etc.)						

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DROPPED OBJECTS						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Workers have the equipment required to conduct work safely (tethers, lanyards, banner tape, signage, etc.)						

MOVING OBJECTS						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Workers have access to fit for purpose tools						
Workers are informed of the safety critical equipment present in their work areas						
There is a procedure and authorization process for bypassing safety critical controls						

VEHICLES						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Sites have access to wheel chocks						
Sites are assessed for lighting levels						
Workers have access to high-visibility PPE (reflective coveralls, vests, etc.)						
Workers have access to cargo securement devices						

CRUSHING - ENERGY ISOLATION						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Adequate lock-out/tag-out system is in use						
Right of way and communication protocols are in place for the movement of large equipment						

CRUSHING - HAND SAFETY						
Verify the Following:	Assigned to: Name	Deficiencies (Yes/No)	List of Deficient Items	Assigned To	Due Date	Completed Date
Safe hand-placement zones have been identified						
Workers have access to adequate gloves for the hazards present						

APPENDIX D: SUPPORTING COMMUNICATIONS

DESCRIPTION				
Date Started:	/ /	Date Completed:	/ /	
	Year Month Date		Year Month Date	
Main purpose for this planning checklist:	To support effective communication, which is essential to the success of the program. High levels of employee awareness and engagement will drive measurable and sustainable improvements in workplace safety.			
Facilitated By: (Team Member)		Position: (Team Member)		
Leader:		Associated Functional Areas:		
CASE FOR CHANGE ACTIVITY PACKAGE (Meeting 1)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within the Activity Package 1				
HAZARD IDENTIFICATION AND CONTROL ACTIVITY PACKAGE (Meeting 2)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within Activity Package 2				
DROPPED OBJECTS ACTIVITY PACKAGE (Meeting 3)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within Activity Package 3				
PRESSURE RELEASES ACTIVITY PACKAGE (Meeting 4)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within Activity Package 4				
VEHICLES ACTIVITY PACKAGE (Meeting 5)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within the Activity Package 5				
MOVING OBJECTS ACTIVITY PACKAGE (Meeting 6)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within the Activity Package 6				

CRUSHING HAZARDS AND ENERGY ISOLATION ACTIVITY PACKAGE (Meeting 7)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within Activity Package 7				
CRUSHING HAND SAFETY ACTIVITY PACKAGE (Meeting 8)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Planned activities within Activity Package 8				
PROGRAM REVIEW (Meeting 9)				
Item Description	Not Planned and /or not on schedule	Planned and /or on schedule	Complete	Timing and Comments
Review and share learnings at all levels of business				

APPENDIX E: ITEMS FOR FOLLOW-UP

Activity Package Title: _____

MEETING DESCRIPTION			
Meeting Date:		Time:	
Location:		Supervisor:	
Number in Crew:		Number Attended:	

REVIEW ITEMS FROM PREVIOUS MEETING AND ANY NEW LEARNINGS

TOPICS DISCUSSED

WORKERS' CONCERNS

CORRECTIVE ACTIONS TO BE TAKEN

CLOSURE OF CORRECTIVE ACTIONS			
Supervisor:		Manager:	
Date:		Date:	

APPENDIX F: INSPECTION SHEETS

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APPENDIX G: POST-PROGRAM REVIEW ROLES AND RESPONSIBILITIES

Role	Responsibilities
Sponsor	<ul style="list-style-type: none">• Initiate and manage a lessons-learned exercise across all participating groups• Analyze the results of the lessons-learned exercise and provide to Energy Safety Canada• Analyze the overall trend in lien of fire incidents and non-compliances and related recordable incidents for the period of the program (Q1-Q4) and communicate trends to Energy Safety Canada.• Identify any required changes based on statistics and lessons-learned feedback• Prepare and deliver organizational communications describing the impact of the program to Energy Safety Canada
Leaders	<ul style="list-style-type: none">• Work with the Sponsor and/or Program Manager to identify lessons-learned from the program• Act as a local subject matter expert to support the Sponsor and/or Program Manager as required• Provide ongoing statistical analysis of workplace injuries as part of program evaluation process• Provide Sponsor and/or Program Manager with lessons-learned and other observations on the program as requested• Provide ongoing stewardship of resource use, program success and challenges, associated work orders and/or corrective actions
Program Managers	<ul style="list-style-type: none">• Work with the Sponsor and team lead to identify lessons-learned from the program• Work with the Sponsor to identify and implement any corrective actions• Work with the Sponsor to escalate any other issues or highlight opportunities as required• Work with the team lead to act as area subject matter experts

If you have any suggestions about how to improve the Line of Fire program, please send an e-mail to Safety@EnergySafetyCanada.com

APPENDIX H: POST-PROGRAM REVIEW WORKSHEET

LESSONS LEARNED LOG

DESCRIPTION	ORIGIN	DATE LOGGED	LOGGED BY	PRIORITY (High/Medium/Low)	RECOMMENDED ACTION	ASSIGNED TO	TARGET DATE	STATUS (Open/closed)