The National Safety Association for Canada's Energy Industry

A Procedure for Implementing the Program - Attachment A

Line of Fire Program

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ENERGY SAFETY CANADA

Disclaimer

This document is intended to be flexible in application and provide guidance to users rather than act as a prescriptive solution. Recognizing that one solution is not appropriate for all users and situations, it presents generally accepted guidelines that apply to industry situations, as well as recommended practices that may suit a company's needs. While we believe that the information contained herein is reliable under the conditions and subject to the limitations set out, Energy Safety Canada does not guarantee its accuracy. The use of this document or any information contained will be at the user's sole risk, regardless of any fault or negligence of Energy Safety Canada and the participating industry associations.

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Preface

Purpose

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

Scope

This procedure includes:

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

Target audience

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

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.

Program Implementation and Review

Program Preparation

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

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.

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.

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	• Leadership Engagement, Case for Change, Roles and Responsibilities
Meeting 2	• Hazard Identification and Control Refresher • Activity Package Follow-up and Learnings
Meeting 3	• Pressure Releases Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection
Meeting 4	• Dropped Objects Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection

Meeting 5	• Moving Objects Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection
Meeting 6	• Vehicles Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection
Meeting 7	• Crushing Hazard and Energy Isolation Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection
Meeting 8	• Hand Injury Prevention Activity Package • Activity Package Follow-up and Learnings • Hazard Hunt/Inspection
Meeting 9	• 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.

Program Review and Improvement

Following the completion of the activity packages throughout a worksite or organization, 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	• Safety stories • Statistics • Safety tweets
Program Effectiveness	• Serious injury and fatality statistics • Near misses with the potential for serious incident (PSI) • Data trends, including: » Mechanism of injury » Sub-mechanism of injury » Body parts involved » Locations
Program Management	• 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.

Roles and Responsibilities

Role	Responsibilities
Energy Safety Canada	• 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 leaderships teams to incorporate learnings where appropriate.
Sponsor	• 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	• 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	• 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

A fillable version is available here.

Description			
Date Started:		Date Completed:	
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/				

Appendix B: Readiness Checklist

A fillable version is available here.

	Yes	No	N/A
Leadership team engaged	☐	☐	☐
Management of change plan developed	☐	☐	☐
Communications plan developed	☐	☐	☐
• Internal communications plan	☐	☐	☐
Stakeholders engaged	☐	☐	☐
• Health and safety team	☐	☐	☐
• Communications team	☐	☐	☐
• Learning and training teams	☐	☐	☐
• Key service providers (contractors)	☐	☐	☐
Change leaders identified per Functional Area	☐	☐	☐
• Rollout team identified	☐	☐	☐

• Identified materials to be changed	☐	☐	☐
• Training materials	☐	☐	☐
• Standards/procedures	☐	☐	☐
• Stickers	☐	☐	☐
• Signs	☐	☐	☐
• Banners	☐	☐	☐
• Other materials	☐	☐	☐
Rollout materials identified	☐	☐	☐
Rollout materials developed	☐	☐	☐

Appendix C: Getting the Sites Ready Checklist

A fillable version is available [here].

Description			
Date Started:		Date Completed:	
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:		Associated Functional Area(s):	

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.)						
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

A fillable version is available here.

Description			
Date Started:		Date Completed:	
Main Purpose: 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 Area(s):	

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:

A fillable version is available here.

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

Build inspection sheets for each site using the DROPS Guide and Template titled "Common Guidelines for Dropped Object Survey and Inspections".

Appendix G: Post-Program Review Roles and Responsibilities

Role	Responsibilities
Sponsor	• 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	• 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	• 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

A fillable version is available here.

Description				
Origin				
Date Logged				
Logged By				
Priority (High/ Medium/Low)				
Recommended Action				
Assigned To				
Target Date				
Status (Open/Closed)				