



Priority Learning Moment

Industry-Submitted Incident Notification

IN-015-2026 | Butane Leak and Flash Fire

This Priority Learning Moment has been submitted to Energy Safety Canada by a company wishing to share a safety lesson.

Incident Description:

A contract worker sustained minor burns to the face while conducting hot work (buffing) on exchanger piping.

What Was the Problem:

Ineffective job planning, hazard assessment, energy isolation and job supervision led to a flammable atmosphere being present during the hot work activity of buffing.

What Happened:

Flammable vapors entered the immediate workspace from a section of pipe that was not isolated. The source of the flammable material is suspected to have come from a low point in the piping, downstream of the isolation points but upstream of where the blinds were to be installed.

Given the overnight ambient temperature followed by the morning sun heating the pipe, the butane began to flash off.



Image: View of leak on exchanger



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What Was the Impact?

The contract worker sustained minor burns to the face that required first aid treatment.

The event was reported to Alberta Occupational Health & Safety under the requirements of a workplace incident – unplanned fire with potential to cause serious injury ([Report serious injuries, illnesses or incidents | Alberta.ca](#)).

Incident Learnings:

Self applied pressures impacted decision-making and work execution, resulting in errors being made with respect to the Life Saving Actions, procedures and practices.

- Inadequate job planning, energy isolation, hazard assessment and failure to follow procedures resulted in an unplanned flash fire that injured a worker.
- The work scope was unclear and not documented, which led to a safe work permit being issued for multiple work tasks and communication breakdown between multiple workers.
- The energy isolation process of blinding was not fully completed.
- A flammable atmosphere was detected when breaking system integrity, which eventually dissipated. As work progressed, intermittent flammable atmosphere was detected and was not properly reported or investigated.

Corrective Actions:

- Provide additional coaching to ensure adequate oversight:
 - Ensure work scope is clearly identified on work permits
 - Ensure hazards and controls are identified and implemented
 - Ensure adequate supervision of work – based on risks and hazards
 - Ensure proper job plans are developed with appropriate subject matter experts (SMEs)



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- Review the requirements of Life Saving Actions - Hot Work with facility staff and project groups, along with requirements outlined in the HSE Work Authorization and Control Practice.
- Share learnings with teams, contractors and across the organization.
- Issue a Safety Alert Bulletin focusing on:
 - The impact of internal pressures when completing work
 - High-priority work job scope planning
 - Potential consequences when there are violations in the Life Saving Actions

General Learning:

Exercise diligence in work planning and Work Authorization. Energy isolation needs to be verified prior to starting work.

Learning Together

Energy Safety Canada (ESC) facilitates the sharing of safety knowledge to support industry-wide learning and continuous improvement. By making lessons learned and leading practices accessible, ESC helps organizations of all sizes learn from one another and strengthen safe work performance.

This resource is intended to support learning and informed decision-making. Every organization is responsible for determining how the information applies to its own operations. For the full legal disclaimer, visit energysafetycanada.com/legal.

Share a Priority Learning Moment

Every lesson shared has the potential to prevent an incident. If your organization has a Priority Learning Moment, [we'd like to hear from you](#).