

LOADING/UNLOADING OF PRODUCTION FLUIDS

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.

Share and Collaborate / Energy Safety Canada works collaboratively with organizations to develop Safety Alerts that improve hazard awareness and injury prevention. Canada's leading oil and gas industry trade associations support the sharing of information to help companies of all sizes improve safe work performance.

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 accepted guidance that generally apply to all situations.

While Energy Safety Canada believes 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 submitting organization.

Copyright/Right to Reproduce / Copyright for this document is held by Energy Safety Canada, 2017. All rights reserved. Energy Safety Canada encourages the copying, reproduction and distribution of this document to promote health and safety in the workplace, provided that Energy Safety Canada is acknowledged. However, no part of this publication may be copied, reproduced or distributed for profit or other commercial enterprise, nor may any part be incorporated into any other publication, without written permission of Energy Safety Canada.

To view other safety alerts please visit enform.ca.

DESCRIPTION:

This Safety Alert was initiated by a producer after several incidents were reported relating to loading and unloading heated production fluids. Workers performing these activities are at risk of chemical exposure and burns when the fluids are heated. In one incident, a worker suffered a burn injury after coming into direct contact with heated production fluids. There is also potential for spills and sprays which require clean up and reporting.



Example of a spill at a site during loading/unloading fluids. The production fluid spread over a large area behind the truck.

CAUSE OF INJURY OR LOSS:

This type of incident occurs when the truck load line is disconnected before the production valve is closed and residual pressure remains in the line. As a result, when the line is disconnected, fluid escapes and can come into direct contact with the worker and the environment.

CONTRIBUTING FACTORS:

- Residual pressure in the load line was not released
- A safety device (pictured below) was not used
- Unaware of physical characteristics of fluids being handled/hauled
- Complacency because it is a routine task

CORRECTIVE ACTIONS:

- Fluid hauling companies should consider requiring company-wide use of a safety device, like the ones in the photos below, which are specially-designed to protect workers and reduce risk of spills
- Workers must wear personal protective equipment (PPE) appropriate for the product being loaded and unloaded, e.g. face shield and not just goggles
- Operating companies should ensure fluid hauling companies have written loading/unloading procedures and trained workers
- Operating companies must communicate the following site specific information:
 - Load line hazards, including heat, pressure and contents
 - Copies of Safety Data Sheets (SDS) for fluids
 - Site specific contacts and emergency procedures



Examples of safety devices which reduce risk of fluid spilling or spraying; devices do not allow decoupling while there is pressure in the line