

Process Safety Forum

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CDOIF: Guidance on 'Other Products in Scope of PSLG'

The Chemical and Downstream Oil Industries Forum (CDOIF)¹ has recently published guidance to help duty holders assess other substances which may give rise to a large flammable vapour cloud following the overfilling of a bulk storage tank.

The final report of the Process Safety Leadership Groups (PSLG) safety and environmental standards for fuel storage sites was published in December 2009. Since publication, duty holders have been completing detailed risk quantification against the guidance provided in the report, for the scenario of over topping a finished gasoline tank which has the same or similar characteristics as tank 912 at Buncefield (as defined in paragraph 24 of the PSLG report):

- those storing gasoline (petrol) as defined in Directive 94/63/EC European Parliament and Council Directive 94/63/EC of 20 December 1994 on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations;
- vertical, cylindrical, non-refrigerated, above-ground storage tanks typically designed to standards BS 2654,3 BS EN 14015,4 API 620,5 API 6506 (or equivalent codes at the time of construction);
- with side walls greater than 5 m in height; and
- filled at rates greater than 100 m³/hour (this is approximately 75 tonnes/hour of gasoline).

The purpose of this guidance is to draw on the experience of both the Competent Authority (CA) and Duty Holders in completing risk assessments for finished gasoline storage tanks, and propose a screening methodology that can be adopted to simplify and expedite the assessment of other products (as defined in appendix 1 of the final PSLG report) which may give rise to the formation of a flammable vapour cloud.

It is not the intention of this document to replace the guidance provided in the final PSLG report, but instead provide a methodology for simplifying the risk assessment process for 'other products' based on the knowledge and feedback from the assessment of finished gasoline. The CA and Duty Holder will continue to reference the guidance provided by the final PSLG report when determining what measures may be required to reduce the risk of an overfill from other product tanks.

This guidance also takes into account the research report published by the Health and Safety Laboratory (HSL) 'RR908 Vapour cloud formation: Experiments and modelling', which has the potential to influence the other products in scope, and the parameters considered when performing a risk assessment.

The CDOIF Guideline on 'Process Safety Leadership Group Other Products in Scope' can be found on the UK Health and Safety Executives website here: <http://www.hse.gov.uk/>

Note 1: CDOIF is a collaborative venture formed to agree strategic areas for joint industry / trade union / regulator action aimed at delivering health, safety and environmental improvements with cross-sector benefits.

The Process Safety Forum has been set up to provide an industry association platform whereby initiatives, best practice, lessons from incidents and process safety strategy can be distilled and shared across sectors, to influence our stakeholders (including the Regulators), and to drive the process safety management agenda. The Process Safety Forum consists of representatives from UKPIA, TSA, CIA, OGUK, CBA, RSSB, ENA, ECIA, UKLPG and NIA. For further details contact: PSF.Secretary@gmail.com.