

Seveso Safety Bulletin

This Seveso Safety Bulletin is a publication of the European community intended to share technical knowledge about technical measures and enforcement practices related to major hazard control and implementation of the Seveso II Directive

Truck loading operations without on-site supervision in Seveso gas oil and gasoline depots

Loading and unloading of fuel at petroleum storage depots without on-site supervision is common practice in some EU countries. Moreover, while many Seveso regulators frown upon the practice as an unacceptable risk, there is often no explicit legal basis for forbidding such an operation. This bulletin summarises the situation in several European countries and the technical measures generally recommended to reduce the additional risk associated with absence of on-site supervision.

Summary

- In many countries the practice is not common or accepted even though not legally forbidden.
- If the practice is allowed, specific safety measures should be in place.
- Safety measures should guarantee quick detection and prompt response, automatic, protections against dysfunction, and controlled access.

A survey of common and accepted practices in regard to loading and unloading at petroleum storage depots without on-site supervision was recently conducted through the Committee of Competent Authorities for the Seveso II Directive. The aim of the survey was to determine the extent to which this practice was allowed in Europe and the various technical measures that would be recommended to address the perceived higher risk by Seveso inspections programmes in the countries affected. This survey was completed in May 2007 and results are summarized in this bulletin.

The situation in Europe

Among a total of 15 respondents (13 EU Member States and 2 EFTA countries) only a few countries reported that truck loading without on

site supervision is a common practice¹. In some countries the practice is restricted to gas oil (non-flammable²).

In the remaining surveyed countries (10 in total) loading without on site supervision is not common or not known to be done, even though it is not legally forbidden. Often on site supervision is specifically required through national guidelines or through the licensing system. In one country loading without supervision on site is legally forbidden.

Targets for risk reduction

Countries where the practice remains active indicated that the practice is tolerated on the basis that certain conditions are in place to address the higher risks associated with it. There appeared to be general agreement among these countries that these conditions should aim to compensate for the lack

of presence of on-site personnel during (un)loading operations, and these conditions can be summarised as follows.

- **quick detection and prompt response** to abnormal situations,
- **automatic shutoff** of the loading installation in case of dysfunctions and abnormalities and,
- **preventing access** to the loading area by unauthorised trucks/drivers.

Typical Measures

Examples of typical measures recommended to meet such objectives:

- Controlled access to the site and the loading rack, *via an electronically controlled entrance, sometimes only if specific training is completed.*
- Physical separation between loading and storage areas,
- Presence of “dead-man” systems,
- Automatic overfill protection,
- Automated alarm devices,
- Emergency buttons (with automatic stop and alarm) at loading racks,
- Automatic sprinkler systems,
- Remote camera control, and
- Interlocked bonding connection.

Camera control

In addition, in some countries it is common practice in this industrial sector to allow the truck driver himself to perform the loading of petroleum products. Camera control from the control room, from which the loading activity can be automatically stopped, also seems to be a generally accepted alternative for the presence of an operator at the loading area. The main differences between re-

mote camera control (with no personnel present on site) and camera control from a control room on site are 1) time needed for intervention and for activation of the emergency plan and 2) the possibility to activate an emergency shut down.

Gas oil vs. gasoline

In principle gas oil and gasoline loading should be evaluated differently due to differences in hazardous properties. Some countries only allow remote off site supervision for loading of non flammable (gas oils) products. Where this is also tolerated for loading of flammable (gasoline) products, stricter measures are almost always applied for both flammable and non flammable petroleum products as they are usually present on the same site.

Summary

Loading without on site supervision of gasolines presenting a fire and explosion risk, is not a universally common practice within the EU on the basis of the survey responses. In general the practice is more prevalent for gas oils, though still not widespread.

In such situations, it is recommended that competent authorities take into consideration the existence of the three conditions noted previously as a basis for evaluating the safety of loading operations that take place when depot personnel are not present.

¹It is also known that this practice is also tolerated in some European countries who did not participate in the survey.

²Although gas oil supports combustion, it is not flammable due to a flashpoint > 55° C.

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