



March 4, 2011

OSHA Docket Office  
Technical Data Center, Room N-2625  
OSHA, Department of Labor  
200 Constitution Ave., NW  
Washington, DC 20210

**Re: OSHA Proposed Rule for Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems), Docket ID OSHA-2007-0072**

Dear Sirs:

The International Liquid Terminals Association (ILTA) is pleased to submit additional comments related to the testimony provided on January 20, 2011, at the informal hearing on the above-referenced rule that was published in the *Federal Register* on May 24, 2010 (75 FR 28862).

ILTA is an international trade association that represents 82 commercial operators of aboveground storage terminals that serve by various modes of bulk liquid carriers including tank trucks, railcars and marine vessels. Collectively, these companies own more than 600 terminal facilities located in the United States and handle a wide range of commodities including petroleum products, crude oils, chemicals, biofuels, fertilizers, and vegetable oils.

This letter provides information to assist OSHA in its evaluation of whether to propose a separate regulation for fall protection from rolling stock and motor vehicles. Specifically, this letter includes a discussion of the equipment currently utilized at terminals. It also examines cost considerations for providing fall protection from tank trucks and railcars (TT/RC) at liquid terminal facilities.

ILTA maintains that a separate, prescriptive standard for fall protection from TT/RC at liquid terminal facilities is unwarranted. Moreover, existing OSHA regulations provide appropriate means for terminal companies to apply the most feasible and effective fall protection commensurate with the particular hazards at each facility.

***Practices in the terminal industry are consistent with existing regulatory requirements.***

Today, terminal operators provide fall protection for TT/RC in compliance with OSHA's General Duty Clause [29 USC 654 § 5(a)(1)]. Under this standard, employers are required to protect employees from recognized hazards that have the potential to result in death or serious physical harm. Personal protective equipment (PPE) must also be provided where feasible. The bulk liquid terminal industry is highly aware of its responsibility to protect workers from recognized workplace hazards. It continually strives to identify and remove all such safety hazards.

Terminal industry practices are also consistent with OSHA's Program Directive 100-76, October 1978, which allows for tailored use of guardrails on loading and unloading platforms. This is valuable given the differences among terminal facility configurations. The directive also recognizes safety concerns related to flammable liquids and separately states that PPE, specifically safety belts and lanyards, should not be used during loading/unloading operations because the employee should be able to move freely in case of a fire.

Approximately 95 percent of domestic ILTA member facilities operate truck loading and unloading facilities and 25 percent service railcars. Accordingly, fall protection from TT/RC is of paramount importance to ILTA and its members.

***Current ILTA safety performance data indicate that existing fall protection measures for TT/RC at terminal facilities are effective in protecting workers commensurate with the risk.***

According to the 2010 ILTA Annual Terminal Member Safety Survey Report<sup>1</sup>, respondents reported zero fatalities and a total of 221 injuries, of which six were fall-related incidents involving TT/RC. That equals 2.7 percent of the total number of recordable incidents at these facilities<sup>2</sup>. Further analysis of the 2010 safety performance data indicates that the reported ILTA terminal average total recordable incident rate (TRIR) of 2.5 remains below nationwide averages for private industry and the transportation and warehousing sector<sup>3</sup>. Depending on the facility, employees who might be exposed to TT/RC hazards may range from 0 to 100 percent of the total workforce. In the survey, companies reported the loading and unloading of nearly two million tank trucks and railcars during the year.

In comparing multiple year ILTA annual survey data, liquid terminals have demonstrated a continual decrease in the number of worker injuries and illnesses being reported for the last five years, even as the number of facilities submitting data has increased. This suggests an overall improvement in safety performance. As Chart 1 illustrates, this decline in TRIR is consistent with national trends.

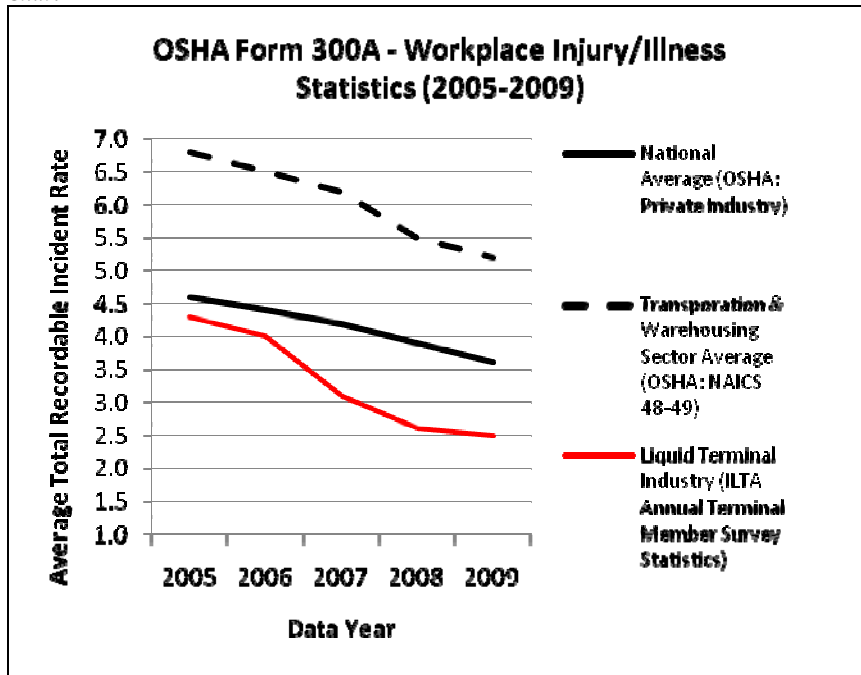
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<sup>1</sup> This survey was based on incident rate data as reported on OSHA Form 300A by ILTA terminal member companies in 2010 for 2009. The reported data represents approximately 500 facilities located throughout the United States.

<sup>2</sup> ILTA only tracked data related to fall injuries in general, and those related to TT/RC operations in particular during 2010.

<sup>3</sup> ILTA terminal member companies primarily report workplace injury and illness statistics under NAICS codes 493190 Other Warehousing and Storage and 424710 Petroleum Bulk Stations and Terminals. A limited amount of facilities may also report under NAICS 324199 Other Petroleum and Coal Products Manufacturing.

Chart 1



These trends indicate that terminal companies are effectively addressing safety hazards, including the mitigation of TT/RC fall hazards and eliminating these risks at their facilities. Thus, ILTA believes that new regulations with an excessively narrow focus on falls from TT/RC would not result in improved safety. Moreover, ILTA is concerned that a prescriptive requirement to focus resources on the reduction of TT/RC fall hazards is, in some instances, likely to divert attention away from other, more acute hazards.

*Terminal companies currently exercise the inherent flexibility in existing OSHA regulations to select appropriate and effective fall protection systems at their facilities.*

Following ILTA's testimony at the January 20 hearing on OSHA's proposed rule, "Walking Working Surfaces and Personal Protective Equipment (Fall Protection Systems)," OSHA asked ILTA for additional information on fall protection practices currently in place at terminals. To address this request, ILTA surveyed terminal member companies on how their workers were being protected from fall hazards associated with TT/RC. Ten companies, collectively representing over 300 facilities, responded. Of these, most respondents indicated that they are expanding existing levels of fall protection.

Fall protection systems that are currently in use at liquid terminal facilities include:

- **Portable Access Platforms**

These systems allow drivers to access the top of TT/RC as required for loading and unloading (Figure 1). Portable racks are designed to access product transfers for a single conveyance. Typically, these units are used to provide fall protection where space is available, ground surfaces are well graded, and retrofitting existing loading racks would be difficult. In some cases, facilities have chosen to permanently install this equipment in designated areas as an alternative to installing a fixed platform.



Figure 1: Portable Access Platform

- **Pedestal Platforms**

These single bay units are commonly placed within the loading/unloading area and provide secure access to the domes of TT/RC (Figure 2).

- **Platforms, Gangways & Safety Cages**

Terminal companies commonly utilize platforms, gangways (adjustable access platforms) and safety cages (sometimes described as “hoops”) to provide fall protection from TT/RC in loading areas. This equipment is available in any number of configurations and is often customized for the individual facility. While this equipment is now commonly included in the design of new rack installations, in some instances, existing racks may also be retrofitted with these fixed safety



Figure 2: Pedestal Platform

installations. Figures 3 through 6 illustrate examples of platforms, gangways and cages that have recently been installed at terminal facilities.



Figure 3: Truck Rack Retrofitted with Gangway, Platform and Cage



Figure 4: Truck Rack Retrofitted with Gangway and Cage



Figure 5: Rail Loading Platform Retrofitted with Gangway and Cage



Figure 6: New Rail Gangway and Cage

- **Harnesses & Lanyards**

Operators may enhance fall protection infrastructure by requiring the use of personal protective equipment (PPE), notably harnesses attached to lanyards. Use of this equipment may be found effective at racks where the installation of platforms is impracticable, or as supplemental equipment where the worker is required to step from a fixed platform or gangway onto the top of a less-protected railcar or tank truck. Use of a lanyard requires robust anchoring, generally overhead.

Given the safety hazards associated with working in proximity to flammable materials, many operators have elected to forgo the use of harnesses and lanyards within the loading area, as allowed by OSHA's Program Directive 100-76. This is not universally the case, as other facilities have determined that fall hazards pose a greater risk to workers than the risk of fire.

Space constraints in some congested RC areas prevent the installation of platforms for workers to access the tops of railcars. This situation was recently encountered at a heavily used RC facility, prompting the company to require operators to wear a harness attached to a retractable lanyard in order to access the top of the railcars. The lanyards were secured to overhead support beams (Figure 7).



Figure 7: Retrofit of Overhead Support Beams for Attaching Safety Lanyards to Access RC Domes

*TT/RC fall protection costs are wide-ranging.*

As demonstrated in the examples above, liquid terminal companies are actively identifying and eliminating fall hazards from TT/RC. Many are methodically upgrading fall protection systems in accordance with their assessment of risk. As with capital investment at any ongoing enterprise, the decision to enhance fall protection at a terminal requires consideration of the available technologies, anticipated net benefit, and budgetary impact including business interruption. Responses to ILTA's survey of fall protection measures reveal that the cost of individual improvements can vary significantly depending on the fall protection system chosen, the facility's configuration, new construction versus retrofit, and scheduling.

- **Portable Access Platforms**

Respondents indicated that a typical portable access platform costs between \$5,000 and \$15,000. This relatively economic apparatus may provide benefit in certain locations where space is available and the ground is graded. These units, however, are not compatible with each loading and unloading operation at every terminal facility. Existing covered truck racks seldom allow sufficient space for a portable unit to be utilized. Rail sidings may be rocky, on a grade, or with multiple spurs making the use of portable units impracticable. The compatibility of such fall protection equipment is dependent upon the rack configuration, product pipeline placement, congestion at the loading area, ground surface substrate, frequency of use and movement, and availability of on-site personnel to ensure proper use.

Figure 8 shows a customized application of a portable platform in an open, well-paved rail unloading area. Unlike many rail facilities that have an uneven gravel substrate, the raised concrete platform at this rack provides operators with an ideal surface to allow this platform to easily be moved between railcars.



Figure 8: Portable Access Platform for RC

- **Pedestal Platforms**

Pedestal platforms are another option for fall protection from TT/RC. These units provide access for product sampling or loading from a single truck or railcar. Installation and equipment costs have been referenced between \$17,000 and \$25,000, and upward for custom installations. While more expensive than portable units, these systems can be considerably less expensive than integrating new platforms and gangways into existing racks. As with portable units, installation is not always feasible.

- **Platforms, Gangways & Safety Cages**

Some terminal companies have chosen to invest in upgrades to existing loading racks at their facilities. Cost and feasibility of retrofitting depends in large part on the extent to which modifications are needed for existing equipment. These may include:

- Raising roof coverings to accommodate the additional height of gangways and hoops;
- Reinforcing overhead structure beams to support the weight of fall protection equipment; and,
- Reconfiguring loading arms and piping to accommodate new equipment and operational safety requirements.

ILTA members reported costs associated with retrofitting an existing truck rack from between \$20,000 to \$375,000, or between \$10,000 and \$55,000 per vehicle loading spot. This extremely wide range of cost is heavily influenced by the necessary modifications for a retrofit. The former, low cost was at a low-use, uncongested rack requiring no modifications to existing structures. The latter, high cost was at a high-use rack that required significant modifications to existing structures, including the roof and piping.

Retrofitting existing RC facilities may pose additional variability due to inconsistencies in railcar and track configurations. For example, Figures 9 and 10, depict a system that includes a gangway and cage to provide worker access to the top of a railcar. Here, the cage is not large enough to encompass the entire work area. Figure 11 illustrates the opposite situation where the cage is much larger than the work area.



**Figure 9: Large Work Area, Gangway and Smaller Cage**



**Figure 10: Large Work Platform, Smaller Cage (Alternative View of Figure 9)**



Figure 11: *Small Work Platform, Large Cage*

- **New Construction of RC/TT Facilities with Improved Fall Protection**

Some terminal companies have installed highly effective fall protection equipment during the construction of new loading racks. Terminal members have reported that installing new fall protection for TT/RC can cost between \$120,000 and \$500,000 per loading rack, or between \$50,000 and \$60,000 per loading spot.

These costs represent only a portion of the total cost of constructing a new TT/RC installation. Based on the data that was provided by terminal companies, the safety infrastructure for a new construction project may account for 15 to 30 percent of the overall budget.

These costs also exclude accounting for what could amount to substantial lost revenues were the installation to result in business interruption from facility downtime. Retrofitting an existing loading area may result in a rack remaining out of service for several weeks. New installation may require several months or longer before achieving operational readiness. Terminals aim to schedule capital improvements in order to minimize business interruption to the extent possible.

The 2-bay truck rack in Figure 12 was constructed and installed to replace a heavily utilized older truck rack. To minimize downtime, the rack was constructed offsite and then assembled in the existing loading area. Another terminal company successfully minimized downtime by constructing this new 10-car rail platform during a previously scheduled service interruption (Figure 13).



**Figure 12:** *Crane Lowering New, Pre-Fabricated Fall Protection Platform for a Truck Rack Into Place*



**Figure 13.** *Newly Constructed Railcar Access Platform with Retractable Gangways and Cages*

In general, when operational requirements demand a significant installation or replacement of loading and unloading facilities, improving fall protection is reasonably cost-effective. Thus, a compulsory retrofit to provide fall protection, absent any discrete operational benefit, may adversely impact a facility's continued viability, particularly when the installation results in the limited use of a loading area.

### **ILTA Recommendations**

As demonstrated in the examples above, terminal companies are providing safe access to the tops of TT/RC through investment in fall protection systems, while remaining in compliance with existing fall protection standards. Of equal importance, the OSHA TRIR data indicates that liquid terminals are making continued improvements in overall safety performance. The most recent data available for falls associated with TT/RC operations demonstrates that these incidents constitute an extremely small proportion of a decreasing number of reportable injuries. ILTA believes that a new set of standards requiring upgrades for TT/RC fall protection will dilute the broader search for those safety hazards that are driving a larger proportion of the recordable injuries at terminals.

International Liquid Terminals Association  
Docket No. OSHA-2007-0072  
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ILTA recommends that OSHA not initiate a separate rulemaking related to fall protection for rolling stock and commercial vehicles because:

- 1) Terminals are already pursuing sustainable improvements in fall protection under the OSHA general duty clause;
- 2) Existing TRIR data at terminals indicate that falls from rolling stock and commercial motor vehicles represent a very small proportion of the total number of recordable incidents;
- 3) The overall incident rate at terminals is demonstrably improving over time; and
- 4) An artificial focus on one comparably minor source of injuries could result in a reduced focus of limited resources on higher risk hazards.

Should OSHA move forward with proposed regulations for fall protection for TT/RC, ILTA requests that requirements for liquid terminal facilities be limited to new construction or when a substantial retrofit is being conducted at an existing facility. ILTA opposes the introduction of new requirements for existing facilities. These facilities should be allowed to retain their flexibility to evaluate whether upgrades are warranted and to execute accordingly, as is now required under the General Duty Clause.

Thank you for your consideration of these comments.

Respectfully submitted,



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