

UNITED STATES OF AMERICA  
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

SECRETARY OF LABOR  
Complainant

v.

VIRGINIA INTERNATIONAL TERMINALS, INC.,  
Respondent

Docket Nr. 96-1735

Appearances

For Complainant

Marvin Krislov  
Deputy Solicitor

Deborah Pierce-Shields  
Regional Solicitor

Gayle M. Green  
Attorney

U.S. Department of Labor  
Philadelphia, PA

For Respondent

R. John Barrett  
Howard W. Roth  
Vandeventer, Black,  
Meredith & Martin, LLP  
Norfolk, VA

Before: JOHN H FRYE, III, Judge, OSHRC

## DECISION AND ORDER

### I. INTRODUCTION

The single citation in this case was issued following an OSHA investigation into a fatality that resulted from a forklift truck accident at Respondent Virginia International Terminals' Warehouse 4, Norfolk International Terminal. The accident occurred when an operator drove her forklift truck off of a loading ramp. The operator either jumped or was ejected from her truck and suffered serious injuries. Some days following this accident she died.

The Compliance Officer who investigated the fatality learned that, although Respondent's employees operate forklift trucks that are equipped with seat belts, they are not required to use these belts. Because there is no specific OSHA regulation addressing the hazard to which forklift truck operators are exposed if they exit their forklift truck during a tipover or fall from a dock or ramp, the citation was issued under the General Duty Clause, Section 5(a)(1) of the Occupational Safety and Health Act. Trial of this charge took place September 4 - 5, 1997, in Norfolk, Virginia.

The facts are not in dispute. VIT is a corporation with a business address and workplace at Norfolk International Terminal, 7737 Hampton Boulevard, Norfolk, VA 23505. (Answer). Respondent employs approximately 1,200 employees in its business activities, and utilizes tools, equipment, materials, goods and supplies which have originated in whole or in part from locations outside the State of Virginia. (Answer)

Margie Poarch, an employee of Respondent, was operating a Hyster “Challenger” forklift truck on October 9, 1996. (Tr. p. 22, GX 12). She backed off a ramp and either jumped or was thrown from her forklift, suffering serious injuries for which she was hospitalized. She died on October 20, 1996. (Tr. p. 16, 22, 177). The Operating Manual for Ms. Poarch’s Hyster forklift warns that the seat belt must be worn to reduce the risk of serious injury. (GX No. 8, Tr. p. 32-34).

Beginning on October 21, 1996, OSHA Safety and Health Compliance Officer Beverly Kupke (now Beverly Crandell) conducted a fatality investigation at Respondent's workplace. (Tr. 15). On November 26, 1996, the Secretary issued to Respondent one citation together with a Notice of Proposed Penalty. (GX 6).

Respondent’s employees operate forklift trucks that are equipped with seat belts (GX 12) that they routinely do not use. (Tr. p. 27). Respondent’s management personnel are aware of this practice. (GX 12). Both union and management recommend but do not require the use of seat belts on forklift trucks (Tr. p. 184, 201, 242; GX 12). The Hampton Roads Shipping Association (HRSA) recommends that, whenever equipment is provided with seat belts or other protective devices, the employer shall require their use<sup>1</sup> (GX 9, second to the last page), although it appeared that this policy had not been enforced and was about to be reconsidered. Mr. Harrison, the Director of Port Safety for HRSA, was involved in formulating the Hampton

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<sup>1</sup> The HRSA is an association comprised of management representatives of the companies, including Respondent, and union representatives of the unions, who operate and work in the Port of Norfolk. (Tr. p. 36, 93). This policy was adopted by the joint labor-management Safety Committee of the HRSA. Tr. 93-96.

Roads policy on seat belts in 1990. (Tr. p. 231-32). The Secretary had announced that a universal seat belt requirement was under consideration, and the local policy was adopted in an effort to be pro-active. (Tr. p. 95, 232). Mr. Harrison understands that OSHA has decided to shelve the seat belt regulation. (Tr. p. 232-233). Consequently, HRSA may consider revoking the port policy on seat belts. (Tr. p. 233).

The Secretary relies on ASME B56.1-1993, "Safety Standard for Low Lift and High Lift Trucks," a standard formulated by the American Society of Mechanical Engineers in accordance with the procedures of the American National Standards Institute, Inc. (ANSI). (GX 7, p. 1). Safety standards relating to the design, operation, and maintenance of powered industrial trucks are included in it. (GX 7, p. 1) The Standard serves as a guide to governmental authorities, manufacturers, purchasers, and users of the equipment. (GX 7, p. 1)

The ASME Standard states that counterbalanced sit-down lift trucks, the kind of truck operated at Respondent's worksite (Tr. p. 116), shall have a restraint device or system designed

... to assist the operator in reducing the risk of entrapment of the operator's head and/or torso between the truck and the ground in the event of a tipover.

(GX 7, & 7.39(a).) The Standard also states that, when an operator protection system is provided, it shall be used:

An active operator protection device or system, when provided, shall be used. Operator protection in the event of tipover is intended to reduce the risk of entrapment of the head and torso between the truck and the ground but may not protect the

operator against all possible injury (see para. 7.2.2). However, steps indicated in paras.5.3.18(d) and (e) should still be adhered to.<sup>2</sup>

The Standard offers the following guidance in the event of a tipover:

(d) The operator should stay with the truck if lateral or longitudinal tipover occurs. The operator should hold on firmly and lean away from the point of impact.

(e) The operator should stay with the truck if it falls off a loading dock or ramp. The operator should hold on firmly and lean away from the point of impact.

GX 7, & 5.3.18.

Following the dictates of the Standard, the manufacturer of the Hyster Challenger forklift truck provides the following warning both in the Operating Manual and on the truck.

**PROTECT YOURSELF, FASTEN YOUR SEATBELT!**

\* \* \*

**DO NOT JUMP** off if the truck tips! **HOLD** the steering wheel firmly. **BRACE** your feet. **LEAN FORWARD** and **AWAY** from point of impact.

GX 8, p.5. The Operating Manual contains numerous similar warnings.

The Operating Manual also states (p.8):

The seat belt and hip restraint bracket provide additional means to help the operator keep the head and torso substantially within the confines of the lift truck frame and overhead guard if a tipover occurs. This restraint system is intended to reduce the risk of the head and torso being trapped between the lift truck and the ground, but it can not protect the operator against all possible injury in a tipover. The hip restraint bracket will help the operator resist side movement if the seat belt is not fastened. It is not a substitute for the seat belt. Always fasten the seat belt.

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<sup>2</sup> Paragraph 5.3.19.

The Secretary's expert witness, Mr. Richard Sauger,<sup>3</sup> voiced an opinion that differs from the Standard in that he does not advocate staying with the truck in the event of a longitudinal tipover. In that situation, Mr. Sauger advocates jumping clear. (Tr. 138-40.)

VIT relies on a study done by the Institute for Advanced Safety Studies for Allis-Chalmers, Industrial Truck Division, in 1985-86. The purpose of the study was to determine if a winged seat and/or a seat belt would affect the severity of injuries to an operator's head in a tipover. The study measured acceleration in the head of an anthropometric dummy in tipovers:

Effects of Seat/Belt Combination on Head Injury

	Averaged Peak Resultant Acceleration (g's)	Averaged Head Injury Criterion (HIC) <sup>4</sup>	Averaged Severity Index (SI)
Conventional Seat w/o Belt	362	1200	1427
Conventional Seat with Belt	426	1164	1556
Winged Seat w/o Belt	377	1240	1447
Winged Seat with Belt	528	2331	2691

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<sup>3</sup> Richard Sauger is an OSHA employee working as a Safety Specialist in the office of Electrical, Electronic & Mechanical Engineering Safety Standards, and acting as the Director of the Safety Standards Program for OSHA. (Tr. p. 100-101). He is a member of the ASME B56.1 Committee that wrote the standard the Secretary relies on. (Tr. p. 102).

<sup>4</sup> Values of HIC in excess of 1000 are considered to produce irreversible brain damage. RX 4, p.ii.

The study showed that the use of a belt contributed to the severity of head injuries. The study noted that the seat belt is a passive restraint system which, to be effective, may not rely on operator response or strength, and consequently took no credit for any effort by the operator to "...hold on firmly and lean away from the point of impact." (RX 4, p.iv; GX 7, &5.3.18(d)). Respondent's experts, Mr. Ponek<sup>5</sup> and Mr. Signorino,<sup>6</sup> testified that it is not the custom and practice of the marine terminal industry to require the wearing of seat belts on forklifts (Tr. pp. 218, 257), and they are not aware of any port in the United States where such a requirement exists (Tr. p. 218, 275-276). Both are of the opinion is that there is more inherent danger in wearing a seat belt because a seat belt hinders the operator's ability to get off the machine promptly in an emergency<sup>7</sup> (Tr. pp. 228, 258), although Mr. Signorino believes that at higher

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<sup>5</sup> Mr. Ed Ponek has worked closely with the National Marine Safety Association. (Tr. p. 211-212). He worked for Maher Terminals, a breakbulk stevedoring company, from 1965 to 1994 (Tr. p. 212), beginning as the Manager of Safety and advancing to Director of Safety for that company. (Tr. p. 212-213). He created training programs for longshoremen. (Tr. p. 213). He has observed forklift operations on a daily basis at Maher and also has visited all ports on the East and West Coast. (Tr. p. 214). He left Maher in 1994 and worked for the New York Shipping Association as an instructor.

<sup>6</sup> Mr. Signorino is a consultant with Environmental Hygiene Incorporated and also the Director of Health, Safety & Regulatory Affairs for Universal Maritime Service Corporation. (Tr. p. 248-249). Universal operates marine terminals in Newark, New Jersey, Baltimore, Maryland, Norfolk, Virginia, Charleston, South Carolina, and Miami, Florida. (Tr. p.249). Starting in 1980, Mr. Signorino became working in the office of Maritime Standards at OSHA's National Office, where he was the Project Officer for shoreside aspects of marine cargo handling which was codified as 29 C.F.R. Part 1917. (Tr. p. 252). Mr. Signorino is a Fellow of the OSHA Institute and taught OSHA compliance to staff officers. He also teaches at Webb Institute of Naval Architecture on regulatory affairs. (Tr. p. 255).

<sup>7</sup> Contrary to Mr. Sauger (Tr. 150), Mr. Signorino believes it possible to exit the high side of a forklift in a tipover. (Tr. p. 258).

operating speeds, in excess of 15 mph, seat belts may be effective in reducing injuries. (Tr. p. 268). The evidence here indicates forklifts attain maximum speeds of about four to eight miles per hour. (Tr. 174, 264.) Mr. Signorino is aware of the criticisms of the Allis-Chalmers Study, but believes that it is valid and subscribes to its conclusion of increased risk of injury in a forklift tipover when seat belts are worn. (Tr. p. 274-275).

Mr. Ponak has reviewed and also agrees with the conclusions of the Allis-Chalmers Study. (Tr. p. 222). He believes that the restraint system installed in the Hyster Ms. Poarch was operating offered no protection to her upper body, torso, and head. (Tr. p. 223-224). Mr. Ponak has never seen seat belts used on forklifts in marine terminal operations, and points out that there is no OSHA regulation that requires the wearing of seat belts in maritime forklift operations.

Maher Terminals, where he served as Safety Director, did not require forklift operators to wear seat belts and did not purchase forklifts with seat belts. (Tr. p. 218). He believes there is a danger to forklift operators from falling cargo tumbling in unprotected sides, as well as a danger from side impacts by other vehicles, and that avoiding these hazards may require jumping from the forklift. (Tr. p. 220-22).

These experts' testimony reflects the stated preference of the Longshoremen who testified. Joe Riddick has been the Business Agent of Local 1458, ILA, for the past 19 years. (Tr. p. 168-169). His job is to make sure the orders for labor are filled and to represent the union in joint investigations of problems at the Terminal. (Tr. p. 169). He operated a forklift for 12 years and has been on the waterfront, either as a longshoreman or business agent, for 38 years. (Tr. p. 169-170). Mr. Riddick never wore a seat belt when he operated a forklift and, on



occasions, had to jump free from the forklift when its brakes failed and he believed it was safer to jump than to stay in the forklift. (Tr. p. 170). He has seen many occasions when forklifts were damaged, but individuals were not hurt because they jumped off. (Tr. p. 171). Mr. Riddick knows of four people who were injured by staying with the forklift. (Tr. p. 172). After Ms. Poarch's accident, there was a meeting of the Local and the majority of the rank and file members indicated that they would not wear seat belts. (Tr. p. 178-179). Part of Mr. Riddick's job is ensuring the safety and welfare of the men and women in his Local. (Tr. p. 179). It is his opinion that it should be left up to the individual whether to wear a seat belt. (Tr. p. 179-180).

E.M. Dean has been with VIT for 20 years and is currently the Senior Cargo Foreman. (Tr. p. 186-187). He is responsible for the cargo once it hits the pier after leaving the ships (Tr. p. 187), and for getting the cargo to the ship. (Tr. p. 188). The men and women who work under his supervision include forklift operators. (Tr. p. 189). Mr. Dean is aware of many incidents where injuries were avoided by individuals being able to jump from a forklift before there was a side impact, or before being struck by falling cargo, which often comes in the side of a forklift where there is nothing to protect the operator. (Tr. p. 195-96, 199-200). Mr. Dean himself operated forklifts for 25 or 30 years. He is more comfortable both as an operator and as a supervisor when operators are not hindered in their ability to jump free to avoid accidents. (Tr. p. 200-201).

Darnell Johnson is a Header and Shop Steward. His duties are to control a gang of men of up to 15 people and to control all of the labor in the 1458 Local. (Tr. p. 236-237). He has driven

forklifts for 27 of his 29 years on the waterfront. (Tr. p. 237). He does not himself use, nor does he require his workers to use, seat belts because he regards their use as dangerous. Mr.

Johnson recently witnessed an incident where a hustler was about to impact the side of a forklift. The driver avoided serious injury by jumping off. (Tr. p. 238-239). He has also seen operators avoid being struck by falling cargo by jumping out of their forklifts. (Tr. p. 239).

## II. DISCUSSION

To establish a violation of Section 5(a)(1), the Secretary must prove that: (1) a condition or activity in the employer's workplace presented a hazard to employees; (2) the cited employer or the employer's industry recognized the hazard; (3) the hazard was causing or likely to cause death or serious physical harm; and (4) feasible means existed to eliminate or materially reduce the hazard. *Waldon Healthcare Center*, 16 BNA OSHC 1052 (Nos. 89-2804 and 89-3097, 1993); *Tampa Shipyards Inc.*, 15 BNA OSHC 1533 (Nos. 86-360 and 86-469, 1992); *Pelron Corp.*, 12 BNA OSHC 1833, 1835 (No. 82-388, 1986).

In her brief, the Secretary tends to define the hazard in terms of the remedy, stating that the hazard is the failure to use seat belts when they are provided. She does not address the question of whether a hazard exists, concentrating instead on the proposition that a hazard was recognized. The hazard as stated in the complaint and citation is the following:

The employer did not furnish employment and a place of employment which was free from recognized hazards that were causing or likely to cause death or serious physical harm to employees; in that employees operating power industrial trucks (cargo handling equipment) equipped with seat belts, were not required to wear seat belts

during operation, exposing employees to serious injury and recognized hazards should the equipment tip over.

The citation goes on to describe Ms. Poarch's accident and to refer to ASME/ANSI Standard B56.1d-1992.

There are two problems with this statement. First, it tends to confuse the hazard with the Secretary's proposed means of abating the hazard. There is no evidence in this record that failure to wear a seat belt is itself a hazard. Indeed, it is hard to imagine that there could be such evidence. There is no risk of injury that stems solely from such a failure. Moreover, it makes no sense to say that the hazard of failure to wear a seat belt only exists when forklifts are equipped with seat belts. If a hazard exists at all, it exists without regard to the presence of a seat belt. The evidence adduced by the Secretary identifies the hazard as a tipover accident. In the event of such an accident, the Secretary argues that the seat belt provides some protection to the operator.

A better statement of the Secretary's position is that seat belts in forklift trucks are a component part of an operator restraint system that is designed to reduce the incidence and severity of injuries to the operator in the event of a tipover accident, a hazard to which forklift trucks are particularly susceptible, and that the failure to wear the seat belt that is provided in the forklift truck increases the risk of injury to the operator in the event of such an accident.

Similarly, VIT blinks at reality in saying that there is no hazard. Ms. Poarch died as a result of injuries received in a tipover accident. There is no showing that Ms. Poarch's accident was freak or even unusual. Rather, the evidence indicates that it is an accident which reasonably

may be expected to occur. I find that the hazard of a tipover accident exists, and that that hazard is significant.

The evidence also indicates that the hazard is recognized. HRSAs have adopted, although not enforced, a recommendation that seat belts be used when present, and the ASME/ANSI Standard and manufacturer's operating manual contain similar advice. While there is the uncontradicted testimony of VIT's experts that no major port follows such a practice, the reason is the belief that use of seat belts presents a greater hazard than nonuse, rather than a refusal to recognize an obvious hazard.

This leaves the question whether the Secretary has demonstrated that the use of seat belts, when present, is a feasible means of abating the hazard. I begin this inquiry by focusing on the recommendations of the ASME/ANSI Standard. That recommendation is that "an *active operator protection device or system*, when provided, shall be used." (Emphasis added.) The "active operator protection device or system" is defined in § 7.39(a) as

a restraint device, system, or enclosure that is intended to assist the operator in reducing the risk of entrapment of the operator's head and/or torso between the truck and the ground in the event of a tipover.

This definition pointedly does not include a reference to seat belts, and that omission was intentional. Interpretation 1-38 issued January 18, 1994, addressed that omission.

Question (1): Section 7-39 suggests a major change to operator restraints. Please clarify what is meant by this section, with examples of suitable devices.

Reply (1): The inclusion of Section 7.39 does not suggest so much a change to operator restraints as it does a positive statement of the need for some device or system with the purpose of assisting the operator in reducing the risk of injury in an overturn accident. The means to accomplish this is purposely left nondescript. The Standard

does not intend to provide design requirements for acceptable means to accomplish the intent. The Standard leaves it open to the ingenuity of the designer to accomplish that task in whatever way is felt by the manufacturer to best answer the need.

Question (2): The Section would tend to rule out the use of standard lap type seatbelts. Is this clause meant to include wings of the operator's seat or other such devices?

Reply (2): Standard lap type seatbelts, winged seats, and many other such devices would all be included in the definition of restraint device, system, or enclosure.

*See GX 7, p.13, see also Interpretation 1-41 issued January 6, 1995, at p.15; Tr. 114-15.*

The ASME/ANSI Standard does not specify the particulars of an operator restraint system, but rather challenges the manufacturers of forklifts to find "some device or system with the purpose of assisting the operator in reducing the risk of injury in an overturn accident." The ASME/ANSI Standard concluded only that a problem exists and called on manufacturers to solve it; clearly it did not conclude that the use of seat belts (or any other specific device) was an acceptable solution.

Mr. Sauger indicated that the ASME/ANSI recommendation that a restraint system be incorporated into new forklifts results from accumulating evidence that operators who tried to jump clear of tipping forklifts were being trapped between the truck and the ground (Tr. 116-17). However, he was vague with regard to any studies and/or testing programs that may have shed light on this problem.<sup>8</sup> Moreover, he was unaware of any studies or documentary

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<sup>8</sup> The Secretary identified GX 11, a copy of a trade magazine article which briefly discussed this problem and alluded to an apparently extensive study of it at Hyster Co. GX 11 was not offered because it had not been furnished to Respondent's counsel in advance. Even if it had been received in evidence, it would have done no more than serve as evidence that such studies exist and could not have been taken as evidence of their content or conclusions.

evidence regarding the efficacy of the use of seat belts (Tr. 156); he had not reviewed the Allis-Chalmers study until he prepared for trial (Tr. 165). This he regarded as having been discredited by the subsequent action of Allis-Chalmers and other manufacturers to install seat belts (Tr. 123-24), although he gave no basis for questioning the accuracy or reliability of the data reported by Allis-Chalmers.

The test results reported by Allis-Chalmers cast sufficient doubt on the ASME/ANSI Standard to require considerably more than the cursory response given them. For example, is the advice in the ASME/ANSI Standard that the operator should grasp the steering wheel and lean away from the impact consistent with the accelerations (g values) reported in the Allis-Chalmers study? In other words, would it be possible for an operator to effectively overcome those accelerations by holding on and leaning? This record provides no answer.

Moreover, the problem appears to be far more complex than a simple tipover accident. There is abundant evidence in this record that other accident scenarios need to be considered. The longshoremen and union officials who had operated forklifts spoke of collisions with other vehicles, failed brakes, loss of traction on slick surfaces, and tumbling cargo, and indicated that the restraint provided by seat belts sometimes can be hazard in itself. All testified that they prefer to forego the restraint of a seat belt because that restraint can delay them in jumping from the truck in an emergency.<sup>9</sup> Even the Secretary's expert, Mr. Sauger, indicated that it is

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<sup>9</sup> While all these witnesses gave convincing statements, Darnell Johnson's testimony was particularly persuasive. Mr. Johnson's demeanor and the straightforward manner in which he answered questions left no room to doubt that his views were sincerely and honestly held. I credit the statements of these witnesses over that of Mr. Sauger (Tr. 159) with respect to the question whether unfastening the seat belt poses a significant delay in an

best to jump from a forklift in a longitudinal tipover (Tr. 139-40) and in a situation where the blade of another forklift was about to enter the side (Tr. 156).

The use of seat belts as part of an operator restraint system may or may not be a feasible means of abating the hazard posed by tipover accidents. If such use is a feasible means of abatement, it would constitute a hazard in other accident scenarios which may or may not be a greater hazard. Unfortunately, this record does not answer these questions. I conclude that the Secretary has not met her burden of persuasion. *See Secretary v. Kokosing Construction Co., Inc.*, 17 OSHC 1869, 1875 (Rev. Com. 1996).

### III. CONCLUSIONS OF LAW

Respondent Virginia International Terminals, Inc., is engaged in a business affecting commerce and is subject to the requirements of the Occupational Safety and Health Act of 1970, as amended, 29 U.S.C. §651 *et seq.*

Respondent did not violate Section 5(a)(1) of the Occupational Safety and Health Act of 1970 as charged in the Complaint.

### IV. ORDER

The Complaint and Citation are dismissed.

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emergency .

JOHN H FRYE, III  
Judge, OSHRC

Dated:  
Washington, D.C.