TABLE 10.—SUMMARY OF GENERAL DUTY CLAUSE (5(A)(1)) CITATIONS—Continued

Violation	No. instances
Order picker without fall protection	1

Source: Office of Electrical, Electronic and Mechanical Engineering Safety Standards, Directorate of Safety Standards Programs, OSHA.

V. Basis for Agency Action

OSHA believes that, as the above discussion indicates, that there is a sufficient body of data and information on which to base a revision of the existing standard for powered industrial truck operator training and the promulgation of the same requirement for powered industrial truck operator training in the construction, maritime and agriculture industries. These requirements would reduce the number of fatalities and injuries resulting from accidents involving powered industrial trucks operated by untrained or insufficiently trained employees.

According to OSHA's data and information, powered industrial truck accidents account for approximately 4.8 percent of the fatalities, 3.5 percent of the serious injuries and 2.4 percent of the non-serious injuries that occur in general industry each year. These accidents resulted in an average of 107 fatalities, 33,800 serious injuries, and 61,800 non-serious injuries per year from 1981 through 1990.

In analyzing its accident data, OSHA has derived two separate estimates of the number of fatalities and serious injuries that occur to employees due to powered industrial truck accidents. Because the two set of numbers are in the same range, the Agency has presented both. It should be noted that the number of fatalities is virtually identical using either method of derivation. However, slightly different definitions are used for estimating injuries. The other set of estimates are presented in the Preliminary Regulatory Impact Analysis, below.

There are approximately 68,400 accidents involving powered industrial trucks in general industry per year. This figure was arrived at by totaling the fatalities, serious, and non-serious injuries and dividing this result by 1.4 (the number of injuries per accident determined from the OSHA Fatality/Catastrophe Reports). According to the Industrial Truck Association (ITA), there are currently approximately 855,900 powered industrial trucks in the United States, therefore approximately 8 percent of the powered industrial trucks will be involved in an accident this year (this assumes a truck is involved in only one accident this year). Since the ITA has stated that the useful life of a powered industrial truck is 8 years, that means that at some point during its useful life, almost two-thirds of the powered industrial trucks will be involved in some type accident (again, assuming there is only one accident per truck).

OSHA also looked at the type accidents that were described in the section of this preamble entitled ''Accident, injury and other data.'' The three reports that contained that information were the ''Industrial Forklift Truck Fatalities—A Summary'' (ODA Study); ''The OSHA Fatality/Catastrophe Reports'' (Fat/Cat Study); and the ''OSHA Emergency Communications System Reports, First Reports.'' The number of different types of accidents are given in Table 12, below. Since the Industrial Forklift Truck Fatalities report was the only one that used a single causation methodology for categorizing the accidents, this is the only study for which percentages of the accidents were calculated. These percentages appear in parentheses following the numbers.

TABLE 11.—CAUSES OF POWERED INDUSTRIAL TRUCK ACCIDENTS

Cause	Study		
	ODA study	Fat/cats	First reports
Tipovers	22 (42%)	53	58
Struck by vehicle	24 (46%)	.....	43
Struck by falling material	4 (8%)	90	[1] 43
Elevated employees	2 (4%)	26	28
Control activation	1 (2%)	[2] 6	.....
Improper equipment or usage	.....	10	[3] 13
Vehicle overloaded	.....	15	.....
Obstructed view	.....	10	.....
Maintenance acc	.....	14	14
Speeding	.....	5	.....
Fell from platform	.....	.....	[4] 23
Lost control	.....	.....	10
Overcome by CO	.....	.....	10
Employee fell from vehicle	.....	.....	7
Electrocution	.....	.....	2

[1] This number represents the accidents due to material that was in the powered industrial truck (a portion of the load) falling on an employee-33 cases, and stacked material falling on an employee when struck by a powered industrial truck-10 cases.

[2] This number represents the accidents due to the operator leaving the vehicle in gear, dismounting the vehicle and being struck when the vehicle moved.

[3] This number represents the number of accidents when either the vehicle was used improperly (6 instances) or the vehicle was defective (7 instances).

[4] This number represents the number of accidents when the operator drove the vehicle off an elevated dock (16 instances) or fell against the face of the dock when an unchocked trailer rolled away from the dock when being loaded or unloaded.

Sources: ''The Forklift Truck Fatalities—A Summary Report'' (ODA Study); ''The OSHA Fatality/Catastrophe Reports'' (Fat/Cats); and ''The OSHA Emergency Communications System Reports (First Reports)''.

In 9 percent of the accident investigations in which an OSHA 170 was prepared (19 of 208), lack of training was identified as a causal factor. In more than half of these accident investigations (11 of 19), lack of training was not cited by OSHA compliance officers. However, OSHA's standard specifies that only trained and authorized operators are allowed to operate powered industrial trucks. Absence of a citation when lack of training was identified as a causal factor in the accident can only be attributed to the fact that many compliance officers believe that the powered industrial truck training requirement (29 CFR 1910.178(l)) is vague and unenforceable in its present form.

In addition, most of the accidents where lack of training was not mentioned, clearly could have been avoided through better training. When OSHA completes this rulemaking, in light of the large number of industrial truck accidents, based on priorities and resources, it will consider whether to revise the entire powered industrial truck standard. Persons also may wish to comment on whether OSHA should revise the entire standard in the future.