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DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Parts 1910, 1915, 1917, 1918, and 1926

[Docket No. OSHA-2018-0008]

RIN 1218-AC99

Powered Industrial Trucks; Request for information

AGENCY: Occupational Safety and Health Administration (OSHA), Labor

ACTION: Request for Information (RFI).

SUMMARY: OSHA requests information and comment on issues related to requirements in the standards on powered industrial trucks for general, maritime, and construction industries. OSHA is seeking information regarding the types, age, and usage of powered industrial trucks, maintenance and retrofitting of powered industrial trucks, how to regulate older powered industrial trucks, the types of accidents and injuries associated with operation of powered industrial trucks, the costs and benefits of retrofitting powered industrial trucks with safety features, and the costs and benefits of all other components of a safety program, as well as various other issues. OSHA is also interested in understanding whether the differences between the standards for maritime, construction, and general industry are appropriate and effective for each specific industrial sector. OSHA will use the information received in response to this RFI to determine what action, if any, it may take to reduce regulatory burdens while maintaining worker safety.

DATES: Submit comments and additional material on or before [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. All submissions must bear a postmark or provide other evidence of the submission date.

ADDRESSES: Submit comments and additional materials, identified by Docket No. OSHA-2018-0008, by any of the following methods:

Electronically: Submit comments and attachments electronically at <http://www.regulations.gov>, which is the Federal eRulemaking Portal. Follow the instructions online for making electronic submissions.

Facsimile: OSHA allows facsimile transmission of comments and additional material that are 10 pages or fewer in length (including attachments). Send these documents to the OSHA Docket Office at (202) 693-1648. OSHA does not require hard copies of these documents. Instead of transmitting facsimile copies of attachments that supplement these documents (for example, studies, journal articles), commenters must submit these attachments to the OSHA Docket Office, Room N-3653, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210. These attachments must identify clearly the commenter's name, the date of submission, the title of this RFI (Powered Industrial Trucks), and docket no. OSHA-2018-0008 so that the Docket Office can attach them to the appropriate document.

Regular mail, express mail, hand delivery, or messenger (courier) service: Submit comments and any additional material (for example, studies, journal articles) to the OSHA Docket Office, Docket No. OSHA-2018-0008 or RIN (1218-AC99), Room N-3653, Occupational Safety and Health Administration, U.S. Department of Labor, 200

Constitution Avenue, NW, Washington, DC 20210; telephone: (202) 693-2350. (OSHA's TTY number is (877) 889-5627.) Contact the OSHA Docket Office for information about security procedures concerning delivery of materials by express mail, hand delivery, and messenger service. The hours of operation for the OSHA Docket Office are 10:00 a.m. to 3:00 p.m., ET.

Instructions: All submissions must include the agency's name, the title of this RFI (Powered Industrial Trucks), and the docket no. OSHA-2018-0008. OSHA will place comments and other material, including any personal information, in the public docket without revision, and these materials will be available online at <http://www.regulations.gov>. Therefore, OSHA cautions commenters about submitting statements they do not want made available to the public and submitting comments that contain personal information (either about themselves or others) such as Social Security numbers, birth dates, and medical data.

Docket: To read or download submissions or other material in the docket, go to <http://www.regulations.gov> or the OSHA Docket Office at the above address. The <http://www.regulations.gov> index lists all documents in the docket. However, some information (e.g., copyrighted material) is not available publicly to read or download through the website. All submissions, including copyrighted material, are available for inspection at the OSHA Docket Office. Contact the OSHA Docket Office for assistance in locating docket submissions.

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SUPPLEMENTARY INFORMATION:

Copies of this Federal Register notice: Electronic copies are available at <http://www.regulations.gov>. This *Federal Register* notice, as well as news releases and other relevant information, also are available at OSHA’s webpage at <http://www.osha.gov>.

References and Exhibits: Documents referenced by OSHA in this RFI, other than OSHA standards and *Federal Register* notices, are in Docket No. OSHA-2018-0008 (powered industrial trucks; request for information). The docket is available at <http://www.regulations.gov>, the Federal eRulemaking Portal. For additional information on submitting items to, or accessing items in, the docket, please refer to the “**ADDRESSES**” section of this RFI. While most exhibits are available at <http://www.regulations.gov>, some information (e.g., copyrighted material) is not available to download from that webpage. However, all materials in the docket are available for inspection at the OSHA Docket Office.

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I. Background

A. Introduction

OSHA is considering whether or not to initiate rulemaking to revise the powered industrial trucks standards for general, maritime, and construction industries (29 CFR 1910.178, 1915.120, 1917.43, 1918.65, and 1926.602(c), (d)). These regulations, promulgated in 1971 and updated in 1998, are intended to protect operators of these trucks and their coworkers. In this RFI, OSHA is seeking public comments that will inform OSHA on potential updates to the powered industrial trucks standards. The term “powered industrial truck” includes what are commonly termed forklifts, but the term also includes all fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by an electric motor or an internal combustion engine. The aim of this RFI is to seek public comment on what aspects of the powered industrial trucks standards are effective as well as those that may be outdated, inefficient, unnecessary, or overly burdensome, and how those provisions might be repealed, replaced, or modified while maintaining or improving worker safety.

OSHA's powered industrial trucks standards contain requirements for machine design and construction, locations of use, maintenance, training, and operations, among other requirements. OSHA initially adopted the powered industrial trucks standard (29 CFR 1910.178) on May 29, 1971 (36 FR 10613), pursuant to section 6(a) of the Occupational Safety and Health Act of 1970 (OSH Act) (29 U.S.C. 651, 655),¹ based on the 1969 editions of the American National Standards Institute's (ANSI) Safety Standard for Powered Industrial Trucks, B56.1, and the National Fire Protection Association's (NFPA) standard for Type Designation, Areas of Use, Maintenance and Operation of Powered Industrial Trucks, NFPA 505. Since the promulgation of OSHA's powered industrial trucks standard in 1971, these national consensus standards have been updated a number of times. The most recent edition of ANSI B56.1 was issued in 2018, in conjunction with the Industrial Truck Standards Development Foundation (ITSDF) (OSHA-2018-0008-0002). The most recent edition of NFPA 505 was issued in 2018 (OSHA-2018-0008-0003). OSHA has updated the powered industrial trucks standards only once, on December 1, 1998 (63 FR 66270), to revise the requirements for operator training codified at § 1910.178(l) and to include references to § 1910.178(l) in the standards for shipyards, marine terminals, longshoring, and construction (§§ 1910.16, 1915.120, 1917.1, 1918.1, and 1926.602(d)).²

ANSI B56.1 defines the safety requirements relating to the elements of design, operation, and maintenance of powered industrial trucks. This national consensus standard has two basic parts. The first part establishes manufacturer requirements to

¹Section 6(a) directed OSHA, during the first two years after the OSH Act became effective, to promulgate as an occupational safety and health standard any national consensus standard or any established Federal standard if such promulgation would improve employee safety or health.

² See Docket OSHA-S008-2006-0639.

ensure hazards do not result from the design and construction of powered industrial trucks at the time of manufacture. This includes a variety of test methods to determine load-handling capacity, which must also be indicated through appropriate markings. When OSHA originally promulgated the powered industrial trucks standard, the agency incorporated by reference the design requirements section of ANSI B56.1-1969.

The second part of B56.1 establishes guidelines for operators of industrial trucks, including requirements for operator qualifications and training, operator safety rules, and maintenance practices. Although OSHA did not incorporate by reference the ANSI B56.1-1969 user requirements in its powered industrial trucks standard, OSHA did base some of the provisions on this part of the ANSI standard. Throughout the years, ANSI/ITSDF has added other requirements to improve the safety of industrial truck operators and other employees. Examples of additions to the user requirements in B56.1 include:

- A requirement that operator training programs cover hazards from carbon monoxide production by internal combustion engines and common initial symptoms of exposure.
- A requirement that, prior to working on engine fuel systems of liquefied petroleum (LP) gas-powered trucks with engines that will not run, users must close the LP tank and vent fuel slowly in a non-hazardous area.
- A requirement for stopping distances when descending grades. This section states that when descending a grade, required stopping distances must be greater and methods must be employed to allow for this condition. Such methods include:

reducing speed, limiting loads, and allowing for adequate clear space at the bottom of the grade.

- A requirement to consider noise exposure of personnel in the work area.
- A requirement regarding relocation of powered industrial trucks. This section states that when using lifting equipment such as elevators, cranes, ship hoisting gear, to relocate a powered industrial truck, the user shall ensure that the capacity of the hoisting equipment being used is not exceeded.

The NFPA 505 standard contains fire safety guidelines for powered industrial trucks including type designations, areas of use, conversions, maintenance, and operations. This standard is designed to mitigate potential fire and explosion hazards involving powered industrial trucks, including fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines.

When OSHA adopted the powered industrial trucks standard in 1971, there were 11 designated types of trucks.³ NFPA has since listed an additional eight truck types: CGH, CN, CNS, DX, G/CN, G/LP, GS/CNS, and GS/LPS.⁴ These are not listed in

³ These 11 designations represent the following truck types: D–Diesel-powered unit; DS–Diesel-powered unit with additional safeguards to exhaust, fuel and electrical systems; DY–Diesel-powered unit with safe guards of DS unit and do not have any electrical equipment including the ignition system and have temperature limiting features; E–Electrically powered unit; ES–Electrical powered unit with additional safeguards to electrical systems to prevent hazardous sparks and limit surface temperatures; EE–Electrical powered unit with safeguards of ES units and all electric motors and electrical equipment enclosed; EX–Electrical powered unit that differs from E, ES and EE units that allows it to be used in certain atmospheres containing flammable vapors and dust; G–Gasoline powered unit; GS–Gasoline powered unit with additional safeguards to exhaust, fuel and electrical systems; LP–Liquefied Petroleum powered unit; LPS–Liquefied Petroleum powered unit with additional safeguards to exhaust, fuel and electrical systems.

⁴ These eight designations are: CGH–Compressed hydrogen-powered unit utilizing a fuel cell that has minimum acceptable safeguards against inherent fire and electrical shock hazards; CN–Compressed natural gas-powered unit that has minimum acceptable safeguards against inherent fire hazards; CNS–Compressed natural gas-powered unit that, in addition to meeting the requirements for Type CN units, is provided with

OSHA's standard. NFPA first added type designations G/LP and GS/LPS, which are both dual-fuel type trucks that operate on gasoline and/or liquefied petroleum gas. NFPA next added new truck type designation DX, which is a diesel-powered unit that is constructed to allow it to be used in atmospheres that contain specifically named flammable vapors, dust, and fibers. NFPA added a new section on compressed natural gas (CNG) that included the addition of type designations CN, CNS, G/CN, and GS/CNS, and made changes to the fuel handling and storage chapters for these trucks, as well as for the dual fuel and converted trucks. NFPA's most recent type designation is a compressed hydrogen-powered unit (CGH).

These eight type-designated units—CGH, CN, CNS, DX, G/CN, G/LP, GS/CNS, GS/LPS—have different requirements for safe operation, maintenance, and handling due to their fuel source, but they are generally the same in design and function as the 11 truck types currently listed in OSHA's standard. For instance, the chapter in NFPA 505 for fuel handling and storage prohibits over-pressurizing fuel cylinders and requires that pressure relief devices be free of plugging and maintained in good operating condition; these requirements are not reflected in OSHA's current standard.

OSHA requests information from the public on the powered industrial trucks standards to help the agency determine how to best protect employees who use powered

additional safeguards to the exhaust, fuel, and electric systems; DX-Diesel-powered unit in which the diesel engine and the electric fittings and equipment are designed, constructed, and assembled in such a way that the unit can be used in atmospheres that contain specifically named flammable vapors, dusts, and, under certain conditions, fibers; G/CN-Gasoline or compressed natural gas unit that has minimum acceptable safeguards against inherent fire hazards; G/LP-Gasoline or liquefied petroleum gas and has minimum acceptable safeguards against inherent fire hazards; GS/CNS-Gasoline or compressed natural gas unit and, in addition to meeting all the requirements for G/CN units, is provided with additional safeguards to the exhaust, fuel, and electric systems; GS/LPS-Gasoline or liquefied petroleum gas unit and, in addition to meeting all the requirements for the G/LP units, is provided with additional safeguards to the exhaust, fuel, and electric systems.

industrial trucks and eliminate unnecessary burdens. OSHA is seeking public comments on whether and how the powered industrial trucks standards should be amended.

B. Fatality and Injury Data

Statistics show that, in some instances, powered industrial trucks cause worker fatalities and injuries. Accordingly, OSHA is considering ways to maintain or improve worker safety while modernizing its standards and reducing any overly-burdensome requirements.

Data from the Bureau of Labor Statistics (BLS) (OSHA-2018-0008-0004) for the years 2011 through 2016 indicate a total of 1,357 fatalities resulting from the use of powered material hauling and transport industrial vehicles and tractors. As shown in Table 1, the annual number of fatalities ranged from 218 to 241, with an annual average of 226 fatalities. The data show that the majority of these fatalities, 1,169 (89 percent), occurred in five industry sectors: agriculture, forestry, fishing, and hunting (788); manufacturing (126); construction (94); wholesale trade (83); and transportation and warehousing (78). Nearly all the fatalities, 1,316 (97 percent), occurred during the use of powered forklifts, order pickers, platform trucks, tractors, and power take-offs.

With respect to injury data, BLS reports that, for the three most recent years with complete results from the BLS surveillance system (2014–2016), lost-workday injuries resulting from incidents associated with powered industrial forklifts, trucks, and tractors ranged from 11,790 cases (2016) to 11,940 cases (2015) and averaged 11,857 cases.⁵ Over 90 percent of cases during this three-year period involved powered industrial

⁵ US Dept. of Labor, Bureau of Labor Statistics, Nonfatal cases involving days away from work: selected characteristics (2011 forward), 2011-2016, <https://www.bls.gov/iif/> (accessed January 23, 2018).

material hauling and transport vehicles. The remainder involved tractors and power take-offs.

OSHA's data from the Severe Injury Reports (SIRs) mirror that of BLS. The SIRs recorded 1,238 incidents from January 1, 2015, through February 28, 2017, resulting in 1,123 hospitalizations and 193 amputations. Approximately 97 percent of the 1,238 incidents involved powered forklifts, order pickers, platform trucks, pallet jacks, airport utility vehicles, and other powered industrial material hauling and transport vehicles, not elsewhere classified, while the remainder involved tractors and power take-offs.⁶

⁶ US Dept. of Labor, Occupational Safety and Health Administration, Severe Injury Reports, <https://www.osha.gov/severeinjury/index.html> (accessed January 18, 2018).

**Table 1: Fatalities -- Industrial Vehicles, Powered Material Hauling and Transport Vehicles, and Tractors (Primary Source of Accident),
2011-2016¹**

NAICS	Industry Title	All Powered Industrial Vehicles and Tractors ²							Powered Forklifts, Order Pickers, & Platform Trucks							Tractors and Power Take-Offs							
		2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016	Total	
	Total -- Private Industry	225	218	221	224	228	241	1,357	66	67	69	65	71	72	410	152	144	144	152	149	165	906	
11	Agriculture, Forestry, Fishing and Hunting	133	121	130	135	129	140	788	3		3	3	3		12	130	121	127	132	126	140	776	
21	Mining, Quarrying, and Oil and Gas Extraction	8	8	10	9	8	5	48	5	6	2	3	1		17				2	2	2	2	8
23	Construction	15	14	13	14	14	24	94	11	9	9	9	9	16	63	4	5	3	5	5	7	29	
31-33	Manufacturing	18	22	18	20	28	20	126	16	18	17	18	23	19	111		3		2	3	1	9	
42	Wholesale Trade	12	18	14	16	9	14	83	11	15	14	12	9	11	72		3		3		3	9	
44-45	Retail Trade	4	5	5	3	4		21	4	5	5	3	4		21								
48-49	Transportation and Warehousing	12	9	13	13	17	14	78	9	8	8	9	14	13	61			3	1			4	

Table 1 Continued: Fatalities -- Industrial Vehicles, Powered Material Hauling and Transport Vehicles and Tractors (Primary Source of Accident), 2011-2016¹

NAICS	Industry Title	All Powered Industrial Vehicles and Tractors ²							Powered Forklifts, Order Picker, & Platform Trucks							Tractors and Power Take-Offs							
		2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016	Total	
54	Professional, Scientific, and Technical Services	13	10	6	1	8	7	45	6		5	3	4	6	24	7	7				5	3	22
55	Management of Companies and Enterprises																						
56	Administrative and Support and Waste Management and Remediation Services																						
71	Arts, Entertainment, and Recreation	4	1	2		3		10			1		2		3	4		1		1		6	
72	Accommodation and Food Services		1		1			2				1			1				1				1
81	Other Services (except Public Administration)		4	5		3	4	16		3	5		1		9		1			3	4	8	

*Data in columns may not sum to the totals on the top row due to adherence to statistical protocols such as ensuring an adequate sample size at the 2-digit NAICS level.

¹Data for 2016 are preliminary for industry sectors below the super sector (multiple 2-digit) NAICS level.

²Includes powered industrial vehicles not shown elsewhere in this table.

Source: US Department of Labor, OSHA, Directorate of Standards and Guidance, based on Bureau of Labor Statistics, Census of Fatal Occupational Injuries, January, 2018 (accessed January 23, 2018).

C. Regulatory History

1. General Industry.

As previously noted, in June 1971, OSHA adopted the powered industrial trucks standard, 29 CFR 1910.178, implementing several measures to encourage worker safety. As part of that rulemaking, and under section 6(a) of the Act, OSHA codified ANSI B56.1-1969, Safety Standard for Powered Industrial Trucks, including the provisions covering operator training.

On December 1, 1998 (63 FR 66270), after notice and comment rulemaking, OSHA published a final rule updating the provisions covering powered industrial truck operator training, which was codified at 29 CFR 1910.178(l). These provisions mandate a training program that bases the amount and type of training required on the operator's prior knowledge and skill; the types of powered industrial trucks the operator will operate in the workplace; the hazards present in the workplace; and the operator's demonstrated ability to operate a powered industrial truck safely. Refresher training is required if the operator is involved in an accident or a near-miss incident; the operator has been observed operating the vehicle in an unsafe manner; the operator has been determined during an evaluation to need additional training; there are changes in the workplace that could affect safe operation of the truck; or the operator is assigned to operate a different type of truck. Evaluations of each operator's performance are required as part of the initial and refresher training and each operator's performance must be evaluated at least once every three years. These training requirements apply to all industries (general industry, construction, shipyards, marine terminals, and longshoring operations) that use powered industrial trucks, except agricultural operations.

Since the 1998 final rule on powered industrial truck operator training, OSHA has not revised the general industry powered industrial truck requirements or updated references to the national industry consensus standard (B56.1) to include newer versions of that standard.

2. *Shipyards, Longshoring, and Marine Cargo Handling.*

In 1974, pursuant to Section 41 of the Longshore and Harbor Workers' Compensation Act, the Secretary issued the existing shipyards and longshoring regulations (39 FR 22074, June 19, 1974). These regulations appear at 29 CFR part 1915 for shipyards and 29 CFR part 1918 for longshoring. Because the OSH Act comprehensively covers most private employers, the longshoring standards also were applied to shoreside cargo handling operations (i.e. marine terminal operations) at 29 CFR part 1917. In addition, in accordance with 29 CFR 1910.5(c)(2), OSHA applied the general industry standards to shoreside activities not covered by the older longshoring rules. Under section 1910.5(c)(2), a general industry standard covering a hazardous condition applies to shoreside activities not covered by a specific standard addressing that hazard. Shipyards are covered by the general industry standard.

On July 5, 1983 (48 FR 30886), OSHA published the final standard for marine terminals (29 CFR part 1917). This rule was intended to further address the shoreside segment of marine cargo handling (29 CFR 1917.27). The marine terminals standard includes requirements for powered industrial trucks at 29 CFR 1917.43.

On July 25, 1997, OSHA published a final rule revising the marine terminals standard (29 CFR part 1917) and the longshoring standard (29 CFR part 1918), and improving the training requirements for powered industrial truck operators in the marine

cargo handling industries (62 FR 40142). Then, on December 1, 1998 (63 FR 66238), OSHA adopted a final rule for shipyard employment (29 CFR 1915.120), Powered Industrial Truck Operator Training, which set forth training requirements applicable to shipyard employment identical to the requirements in the general industry powered industrial truck training standard at 29 CFR 1910.178(l).

3. Construction.

In 1971, under section 6(a) of the OSH Act, the Secretary of Labor adopted the existing Federal standards that had been issued under the Contract Work Hours and Safety Standards Act as OSHA construction standards (36 FR 7340, April 17, 1971). The provisions pertaining to powered industrial trucks used in construction are contained at 29 CFR 1926.602(c). Paragraph 1926.602(c)(1)(vi) states:

All industrial trucks in use shall meet the applicable requirements of design, construction, stability, inspection, testing, maintenance, and operation, as defined in American National Standards Institute B56.1-1969, Safety Standards for Powered Industrial Trucks.

Thus, by incorporating by reference the same 1969 ANSI standard that was the source document for the general industry standard at 29 CFR 1910.178, the powered industrial truck construction standard imposes the identical powered industrial truck requirements on the construction industry as applied to general industry.

On December 1, 1998, 29 CFR part 1926 was amended by adding a new paragraph (d), which provides the same powered industrial truck operator training requirements for construction work as adopted at 29 CFR 1910.178(l) for general industry.

II. Request for Information, Data, and Comments

OSHA is seeking information, data, and comments (information), including information on anticipated costs, cost savings, and benefits related to the questions

below, that will inform the agency's analysis of technological and economic feasibility and will help determine what action, if any, should be taken to repeal, replace or modify outdated, unnecessary or overly burdensome aspects of the powered industrial trucks standard while maintaining or improving worker safety. OSHA is providing the following questions to facilitate responses to this RFI, but commenters may supply other information pertaining to the RFI not explicitly solicited by the questions. When responding, please reference the specific question number that you are responding to, provide a detailed response, explain the reasons behind your views, and, if possible, identify, and provide relevant information on which you rely, including, but not limited to, data, studies, and articles. Throughout this RFI, OSHA requests economic data on issues such as current practices and compliance resource expenditures. In your response, please provide details on your establishment including number of employees and categories of employee occupations; industry identification (by North American Industrial Classification System 6-digit code if available); and the primary types of goods or services produced by your company. This information will help OSHA develop a more accurate analysis of the impacts of any potential rule. OSHA will carefully review and evaluate the information, data, and comments received in response to this *Federal Register* notice to decide on an appropriate course of action.

A. General Issues

1. Types of Powered Industrial Trucks.

OSHA's current powered industrial trucks standards list 11 different types of powered industrial trucks, while NFPA 505-2018 lists 19 different types of powered industrial trucks (the ANSI B56.1 standard does not list types of powered industrial

trucks). OSHA is considering adding these eight new truck types to modernize its standard and improve worker safety. The eight new truck types not currently listed in OSHA's powered industrial trucks standards are:

- CGH: compressed hydrogen-powered unit utilizing a fuel cell that has minimum acceptable safeguards against inherent fire and electrical shock hazards.
- CN: Compressed natural gas-powered unit that has minimum acceptable safeguards against inherent fire hazards.
- CNS: Compressed natural gas-powered unit that, in addition to meeting the requirements for Type CN units, is provided with additional safeguards to the exhaust, fuel, and electric systems;
- DX: Diesel-powered unit in which the diesel engine and the electric fittings and equipment are designed, constructed, and assembled in such a way that the unit can be used in atmospheres that contain specifically named flammable vapors, dusts, and, under certain conditions, fibers.
- G/CN: Gasoline or compressed natural gas unit that has minimum acceptable safeguards against inherent fire hazards.
- G/LP: Gasoline or liquefied petroleum gas unit that has minimum acceptable safeguards against inherent fire hazards;
- GS/CNS: Gasoline or compressed natural gas unit and, in addition to meeting all the requirements for G/CN units, is provided with additional safeguards to the exhaust, fuel, and electric systems.

- GS/LPS: Gasoline or liquefied petroleum gas unit and, in addition to meeting all the requirements for the G/LP units, is provided with additional safeguards to the exhaust, fuel, and electric systems.
- a) Please provide OSHA with data on characteristics such as usage, specifications, capacity, function, ages, and lifespans of trucks in your fleet for the 19 truck types listed in the NFPA standard. Please include information on the number of each type of truck you use, the number of employees assigned to operate these trucks, and for what activities each type of truck is used.
 - b) In addition to these 19 truck types, should OSHA consider including any other types of powered industrial trucks in a future OSHA standard? What would be the basis for inclusions, given that those types are not currently in NFPA 505-2018?
 - c) How commonly used are the eight powered industrial truck types identified in NFPA 505-2018 but not in OSHA's current standard?
 - d) In the Supporting Statement for the 2017 Information Collection Request of the standard on powered industrial trucks (29 CFR 1910.178) (Office of Management and Budget (OMB) Control No. 1218-0242 (September 2017)), OSHA estimated that 1.8 million workers operate 1.2 million trucks within all affected establishments in construction, general industry, longshoring, marine terminals, and shipyards.⁷ Do these estimates accurately reflect the current number of workers and trucks affected

⁷ Docket Exhibit OSHA-2011-0062-0009, Document ID 0009, p. 5, <https://www.regulations.gov/document?D=OSHA-2011-0062-0009>. As reported in that document (2017 ICR supporting statement), "In 1998, OSHA published a final rule in which it revised the operator training requirements specified by paragraph (l) of the Standard (see 63 FR 66238). As part of this rulemaking, the agency performed a Final Economic Analysis (FEA) (see 63 FR 66262). Using data from the FEA for the burden hour and cost estimates described below, OSHA finds that the Standard applies to employers using an estimated 1,210,679 powered industrial trucks operated by about 1,816,018 workers."

by the standard on powered industrial trucks in general industry (29 CFR 1910.178)?

If not, should the number of workers and trucks be adjusted up or down and by how much?

2. *Truck Operations, Maintenance, and Training.*

- a) Do you perform training in-house or contract out to specialists?
- b) If you provide training in-house, do you purchase training modules or develop your own?
- c) Who actually provides the training (e.g., supervisor, safety and health specialist)?
- d) Is your current training limited to truck operations and maintenance or do you manage a broad occupational safety and health training program that includes training on trucks? For all of your workplace safety and health training programs, please provide details on length, frequency, scope, and types of technical resources deployed (e.g., DVDs, online courses, hands-on training, computer simulation or robotics).
- e) Are OSHA's current training requirements adequate or excessive? If not adequate, what modifications or additional requirements should OSHA consider? If excessive, what requirements are unnecessary or overly burdensome?
- f) Does your workplace have a training program that you think is more effective than that required by the OSHA standard?
- g) Please share the aspects of the program in your workplace that you recommend OSHA consider and provide any data to support its effectiveness.
- h) Are you using any powered industrial truck aftermarket equipment, such as a back-up camera or perimeter sensor alarm? Is such equipment effective in reducing accidents?

- i) What number or percentage of powered industrial trucks in use have rollover protection or enclosures?
- j) Can powered industrial trucks without rollover protection be retrofitted? If so, how, and what is your estimate of that cost?
- k) How often do you inspect your powered industrial trucks? Please describe your inspection procedures and provide any checklists that are used.

3. Incidents and Injuries.

- a) What are the most common types of workplace incidents and injuries involving powered industrial trucks that have occurred in your facility or industry (e.g., rollovers, struck by, falling off docks)?
- b) What are the most common causes of hazardous incidents involving powered industrial trucks (please specify those factors)? Please provide case reports, redacted data, or aggregated data, and information quantifying and describing such incidents.
- c) Which activities involving powered industrial trucks result in the most incidents (e.g., loading, unloading, traveling, backing up)?
- d) Do more incidents occur with older equipment? If so, please provide detailed information on why the older equipment is more hazardous.
- e) Do incidents vary by type of industrial truck, and if so, how?

4. Consistency among OSHA Standards.

- a) If OSHA determines that it is necessary to revise the general industry standard, how should the agency consider revising the maritime and construction powered industrial trucks standards?

- b) Should OSHA's maritime and construction standards be identical or, at least, substantially similar to the general industry standard?
- c) Are there differences specific to the maritime and construction industries that should be addressed through different requirements?

B. Consensus Standards

1. American National Standards Institute.

As previously stated, OSHA's standards addressing powered industrial trucks reference ANSI B56.1, developed in 1969. However, this consensus standard has been updated several times since then with the latest version published in 2018 (ANSI/ITSDF B56.1a).

- a) Do the requirements in the 2018 edition of ANSI/ITSDF B56.1a adequately protect workers operating powered industrial trucks?
- b) What requirements, if any, are missing from this ANSI standard that would ensure safety for employees during powered industrial truck operations?
- c) Does compliance with ANSI/ITSDF B56.1a-2018 address most hazards commonly encountered with powered industrial trucks and is it better or preferable than the existing OSHA regulation? Please explain.
- d) Are there any hazards not addressed by ANSI/ITSDF B56.1a-2018?
- e) Are there any requirements in ANSI/ITSDF B56.1a-2018 that reduce worker safety?

2. National Fire Protection Association.

The National Fire Protection Association standard (NFPA 505-2018) is the fire safety standard for powered industrial trucks and covers truck types, designations, areas of use, maintenance, and operation of powered industrial trucks.

- a) Does compliance with the NFPA standard ensure that workers are protected from hazards associated with the operation of powered industrial trucks, or are there additional procedures OSHA should consider?
- b) Are employers currently in compliance with this consensus standard? If not, what provisions are employers not following? Why?

3. Other Standards.

Are there other standards OSHA should consider or use if the agency determines it is necessary to revise its powered industrial trucks standards?

C. Compliance Issues

- a) If OSHA decides to revise the standards based on the most recent ANSI and NFPA standards, what requirements, if any, in ANSI/ITSDF B56.1a-2018 and NFPA 505-2018 would make it difficult or impossible for older equipment to be in compliance?
- b) If OSHA revises the standards on powered industrial trucks, should OSHA consider grandfathering in powered industrial trucks manufactured before a certain date and, if so, what date would that be? Please provide your reasoning for that date.
- c) Would it be appropriate for grandfathering dates to vary for different types of truck?
- d) If OSHA decides to consider grandfathering older equipment, is there a future date OSHA should set beyond which the “grandfathered” clause (or safe harbor) should not apply?
- e) How many older powered industrial trucks are you using? What type of trucks are these and what do you use them for?
- f) How many powered industrial trucks do you use that do not have seat belts?

g) Can any of these trucks be retrofitted with seat belts? If so, how, and what is your estimate of that cost?

h) What is the average life span of a powered industrial truck?

D. Economic Issues

a) Please describe in detail any provision of the current standard that you believe is outdated, unnecessary, or ineffective; or imposes costs that exceed benefits. Please provide information supporting your view, including data, studies, and articles.

b) To what extent do employers already comply with the current ANSI consensus standard (ANSI/ITSDF B56.1a-2018)? Are there situations where equipment could be easily retrofitted to meet the requirements contained in the revised consensus standard ANSI/ITSDF B56.1a-2018? Please include information on the type of vehicle and modifications necessary, including how much time is required to perform the retrofitting, the type of worker who could do the retrofitting, and the cost of equipment needed for the vehicle modification or the cost to contract out the work.

c) What are the baseline practices in your industry with respect to complying with the provisions of consensus standards relating to training, operation, maintenance, or work practices?

d) Is there older equipment that cannot be updated without significant cost, and what factors would contribute to the costs of retrofitting or augmenting older equipment to achieve compliance with ANSI/ITSDF B56.1a-2018? Please specify the types of costs (i.e., labor, materials, equipment, and consultant fees) that affected employers would incur to comply with ANSI/ITSDF B56.1a-2018 and the costs per unit (e.g., worker, machinery, energy). If a new OSHA standard required changes that applied

- to older powered industrial trucks, at what cost of compliance expense would it be more cost effective simply to replace older trucks with newer ones?
- e) If OSHA incorporated the requirements of NFPA 505-2018 into its standards and applied it to older powered industrial trucks, would employers retrofit or augment their older trucks, or replace them with already-compliant trucks?
 - f) Are there particular impacts on small entities from a revision to the powered industrial trucks standards that references current consensus standards, including ANSI/ITSDF B56.1a-2018?
 - g) Would small entities face economic or technological feasibility challenges to comply with revised standards that reference current consensus standards?
 - h) Do you identify as a small entity in your industry? If so, what is the basis for that identification (for example, reliance on Small Business Administration size standards)? If you are uncertain as to your qualifications as a small entity, please provide details on your establishment size in terms of number of employees and categories of employee occupations; industry identification (by North American Industrial Classification System 6-digit code, if available); and the primary types of goods or services produced by your company.
 - i) Please describe in detail the technical or financial concerns that employers encounter when implementing or planning the implementation of safety programs for powered industrial trucks.
 - l) OSHA requests comments, particularly from small entities, on current practices with respect to safe handling and operation of powered industrial trucks. Please identify the practices that are critical to safe handling and operation of powered industrial

trucks (i.e., those practices whose absence would significantly compromise the safety of employees). Please discuss the role of employee training in your safety programs involving powered industrial trucks and the perceived benefits of employee training. Where possible, please estimate the cost per employee for any component of your safety programs involving powered industrial trucks.

E. Other Comments/Suggestions/Concerns

OSHA invites interested persons—including employers, trade associations, workers, worker organizations, and public health and safety organizations—to submit information, comments, data, studies, and other materials on the issues and questions in this RFI. In particular, OSHA invites comment on specific issues and requests information and data about practices at affected establishments in general industry, construction, shipyard employment, and marine cargo handling. When submitting comments in response to questions or issues raised or revisions that OSHA is considering, OSHA requests that you explain your rationale and, if possible, provide data and information to support your comments and recommendations.

Authority and Signature:

Loren Sweatt, Acting Assistant Secretary of Labor for Occupational Safety and Health, authorized the preparation of this notice pursuant to 29 U.S.C. 653,655, and 657, Secretary’s Order 1-2012 (77 FR 3912; Jan. 25, 2012), and 29 CFR part 1911.

Signed at Washington, DC, on March 5, 2019.

Loren Sweatt,
Acting Assistant Secretary of Labor for Occupational Safety and Health.
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