April 8, 2022

Douglas L. Parker
Assistant Secretary for Occupational Safety and Health
Occupational Safety and Health Administration
United States Department of Labor

AIHA Comments on OSHA’s Proposed Powered Industrial Trucks Design Standard Update
Agency/Docket Number: OSHA-2020-0008
RIN: 1218-AD26

Dear Assistant Secretary Parker:

AIHA, the association for scientists and professionals committed to preserving and ensuring occupational and environmental health and safety (OEHS), appreciates the opportunity to provide feedback on OSHA’s notice of proposed rulemaking on updating the design and construction requirements of the powered industrial trucks standards for general industry and construction. Below are our comments, which we hope you find useful.

Use of speed governor and defining maximum speed
There is a need to define the maximum speed in common environments. There is also a question of whether the use of a speed governor on PITs can be mandatory.

Backup alarms and proximity/directional lighting (what should be required)
Visibility and pedestrian/PIT interactions are some of the most critical aspects of PIT safety. There should be unambiguous language on what’s required for proximity and directional alarm warning systems. Issues that should be addressed include:

- Backup alarms that include audio and visual components
- Proximity lighting

Seatbelt interlocked to start function (on sit-down PITs)
OSHA does not have a specific rule requiring sit-down PITs to have seat belts; however, OSHA does require that operators use seatbelts when they are furnished. Employers are responsible for ensuring that PIT operators are wearing their seatbelts.
It has been proven that the safest place for an operator is strapped into the seat of the sit-down PIT with the seatbelt fastened. During a tip over, the purpose of the forklift seatbelt is to rob the operator of their most instinctual reaction; to jump away from the tipping forklift.

Over the years, companies have been fined hundreds of thousands of dollars by OSHA for lack of seatbelt use and enforcement. The recommendation would be to specify the rule for seatbelts, including that interlocking forklift ignition use seatbelts to reduce non-compliance.

**Hearing protection awareness**

While hearing protection aspects are outside the scope of this proposed change, it is something that should at least be an awareness item as noise levels may exceed the Threshold Limit Values (TLVs).

As far as construction aspects, an allowance is needed for revisions to the warning systems on lift trucks. Audible alarms technically cannot be altered except through approved manufacturers’ revisions. Alarms need to be adequately heard by others to serve as a warning and need to be louder than ambient noise levels. On the other hand, in a quiet warehouse, they do not need to be 105 dBA. A warehouse full of lift trucks always beeping horns decreases safety as it becomes just a lot of continual loud noise. Warning devices oftentimes are louder at the operator position than for people six feet away who should be getting the warning. Design issues, such as tighter fork attachments to reduce rattle also should be stressed as noise can exceed 100 dBA going over a small floor unevenness when forks are not loaded.

Due to the higher noise levels generated by these PITs and their associated alarms, in accordance with OSHA 1910.95 – Occupational Noise Exposure, noise dosimetry can be performed on the PIT operators to identify their noise dose levels and if they need to be enrolled in their company’s hearing conservation program. Area noise levels can also be measured to identify if it is feasible to place a temporary restricted barrier around the PIT working area to reduce employee noise exposure.

**Ergonomic assessments**

Ergonomic factors should always be taken into consideration for the design and operation of PITs. An evaluation of equipment should be performed to identify risk factors that could cause or aggravate musculoskeletal disorders. Factors for consideration should include:

**Design considerations**
- Design of the PIT (location of automatic hand controls); the benefit of avoiding manual foot controls
- Vibration levels of the unit and controls for solutions
- Height and location of PIT step platform (a low step-in height makes repeatedly going on and off easier and less tiring)
• Visibility to allow operators to easily see the load in forward or reverse without having to extend their necks in uncomfortable positions

Operator recommendations
• Avoid prolonged sitting (insert frequent stretch breaks; seated less than one hour at one stretch)
• Avoid awkward postures (extended arm reaches in placement of controls)
• Maintain a neutral posture
• Insert padding on the seat to eliminate/minimize vibration
• Reduce Whole Body Vibration to less than 0.60 m/sec²

Questions from OSHA
Should OSHA only require compliance with the design and construction requirements of the incorporated by reference of the applicable ANSI standard in table 1 and only allow for compliance with future consensus standards by incorporating by reference those new consensus standards through notice and comment rulemaking on an ongoing basis as they become available?

The B56 standards for industrial lifting trucks have been revised and upgraded many times over the years. In 1978, ANSI reorganized its B56 standards by narrowing the scope of B56.1 and adding new volumes to cover other truck types. The standard for ANSI B56.5/ITSDF, Safety Standard for Driverless Automatic Guided Industrial and Automated Functions of Manned Industrial Vehicles has been revised over ten times from 1978 to 2019.


Requiring allowance for compliance with future consensus standards by incorporating by reference those new consensus standards through notice and comment rulemaking on an ongoing basis as they become available is not recommended. The reason is because of the length of time for the OSHA notice and rulemaking to work its way through the formal rulemaking process with possible legal challenges. These requirements would make updating requirements cumbersome and impractical. By the time the rulemaking was completed, for example, a new standard would have been published, making the new rule outdated on the final rule publication date. Also, as innovative technology is incorporated into industrial trucks as related to B56.1, B56.5, and B56.6, new hazards such as
electrocution with electric power, or new hazards associated with driverless trucks and artificial intelligence, the new rule must be flexible enough to address these new challenges in a timely manner.

What, if any, additional conditions should be required for an employer to make an equivalency showing for purposes of meeting the proposed alternative method of compliance. What should an employer be required to do to demonstrate that a truck is at least as protective as the design and construction requirements of the applicable ANSI standard in table 1?

The manufacturer should certify that the equipment meets “the most recent” applicable standard for the design and construction of the powered industrial equipment. Additional or current requirements for any existing or alternative method of compliance should be coordinated according to a globally recognized standard set by a recognized international organization, for example, International Organization for Standardization’s ISO/TC 110, Industrial Trucks. Design and construction of specific equipment will follow recognized best practices and will not be an issue among current major manufacturers. The question becomes the safety and sale of older equipment that does not need to meet the most recent, stringent safety design requirements.

In the case where OSHA allows employers to use powered industrial trucks not constructed in accordance with the most recent national consensus standards as incorporated by reference in the OSHA standards, OSHA should add a non-mandatory appendix to clarify how the employer can demonstrate that the truck they use was designed and constructed in a manner that provides employee protection that is at least “as effective as” the national consensus standards.

Conclusion and next steps
AIHA thanks you for the opportunity to provide feedback on OSHA’s notice of proposed rulemaking on updating the design and construction requirements of the powered industrial trucks standards for general industry and construction. We look forward to our continued work together, helping protect the health and safety of all workers. If you have any questions on these comments or other matters, please contact Mark Ames at mames@aiha.org or (703) 846-0730.

Sincerely,

Mark Ames
Director, Government Relations
AIHA
About AIHA

AIHA is the association for scientists and professionals committed to preserving and ensuring occupational and environmental health and safety in the workplace and community. Founded in 1939, we support our members with our expertise, networks, comprehensive education programs, and other products and services that help them maintain the highest professional and competency standards. More than half of AIHA’s nearly 8,500 members are Certified Industrial Hygienists and many hold other professional designations. AIHA serves as a resource for those employed across the public and private sectors as well as to the communities in which they work. For more information, please visit www.aiha.org.