

DEPARTMENT OF INDUSTRIAL RELATIONS
Occupational Safety and Health Standards Board
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PROPOSED PETITION DECISION OF THE
OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD
(PETITION FILE NO. 588)

INTRODUCTION

The Occupational Safety and Health Standards Board (Board) received a petition on January 5, 2021 from Mr. Michael M. Miller, President and Director of Original Sixteen to One Mine, Inc., (Petitioner). The Petitioner requests the Board change title 8, section 462(m) of the Unfired Pressure Vessel Safety Orders to update requirements for the use of plastic piping in compressed air conveyance.

Labor code section 142.2 permits interested persons to propose new or revised regulations concerning occupational safety and health and requires the Board to consider such proposals and render a decision no later than six months following receipt.

Further, as required by Labor code section 147, any proposed occupational safety and health standard received by the Board from a source other than the Division of Occupational Safety and Health (Division) must be referred to the Division for evaluation. The Division has 60 days after the receipt to submit an evaluation regarding the proposal.

SUMMARY

The Petitioner requests the Board consider updates to title 8, section 462(m) which allows plastic piping to be used to convey compressed air. The Petitioner included a copy of their original request to the Board seeking a permanent variance, however the Petitioner reframes their request as a petition. Within the underlying document the Petitioner states, "it may be advisable for the Board to review [article 3¹] in light of changes with the "plastics" industry since the 1970's when the standard was written."

The Petitioner also states, "The issue is the poly pipe is stamped for 200psi water not including 200psi for air." Further the Petitioner states, "I contacted poly pipe manufacturers who took no interest in re-stamping its product."

¹ Subchapter 1 Unfired Pressure Vessel Safety Orders, Article 3 Air Tanks

Central to the Petitioner's request is the Petitioner is unable to secure the relabeling of the piping from the manufacturer. The Petitioner's piping therefore cannot meet the requirements of section 462(m)(3)(E):

(E) All plastic pipe shall be permanently marked continuously, but not to exceed 5-foot intervals, with the following information:

- 1. Size;*
- 2. Manufacturer's name;*
- 3. Pressure rating at 73°F and 140°F;*
- 4. Material name, specification, ASTM cell classification, batch number, and the date of manufacture;*
- 5. The words "For Compressed Air"; and [emphasis added]*
- 6. Either Schedule, "Sch Number:, or Standard Dimension Ratio, "SDR Number".*

Additionally, as referenced in the letter attached to the petition, the Petitioner is unable to obtain testing and laboratory certification that the plastic piping used "meets or exceeds the test requirements under Appendix C" as required under subdivision (m)(3)(I):

(I) The employer shall use pipe that meets or exceeds the test requirements listed in Appendix C, and upon request, supply the Division written laboratory certification from the manufacturer that the pipe meets or exceeds all test requirements listed in Appendix C of these orders.

The Petitioner appealed citations issued by the Division through the Occupational Safety and Health Appeals Board and now turns to the Board to consider rulemaking which would resolve instances where the manufacturer is unwilling or unable to provide the requisite certification or re-label the piping.

Additionally, the Petitioner requests the Board consider general updates to the existing standard, but the petition does not suggest any specific changes to article 3.

HISTORY

The granting of Petition 184 in 1989 initiated the discussion to include plastic piping into the regulatory scheme under section 462. In 1989 and 1990, advisory committee meetings were held to propose regulations to include plastic piping into section 462. Plastic piping at the time included acrylonitrile butadiene styrene (ABS), polyethelene and reinforced nylon. Section 462(m)(3) and (m)(4) were adopted in 1992. For an employer to install and use plastic piping to convey compressed air, the employer must comply with either section 462(m)(3) or (m)(4).

DIVISION EVALUATION

Within the Division's evaluation report dated July 27, 2021, the Division asserts that there are no American standards that address thermoplastic materials for compressed air system. The Division claims that standards exist for use of thermoplastic materials for natural gas, propane and propane air mixtures. Specifically:

- ASTM Designation No. D2513-86a
- ASTM Designation No. D2444
- ASTM Designation No. D1598-86
- ASTM Designation No. D1599-86
- ASTM Designation No. F314-87a

The Division explains that it accepts the testing requirements found in the above ASTM standards as meeting or exceeding those found in title 8, section 560, Appendix C. The Division suggests the Petitioner's relief may be sought through the permanent variance process of the Board.

Further, the Division determined that no basis for amendments to title 8, section 462 have been provided.

The Division recommends the Petition be DENIED.

BOARD STAFF EVALUATION

Board staff prepared an evaluation dated October 7, 2021. Within the evaluation, Board staff explains that the existing regulation under section 462(m)(3) may impose undue restrictions upon the regulated public.

"[W]ritten laboratory certification from the manufacturer" as the sole means for demonstrating that the plastic pipe is suitable for use with compressed air could pose an unnecessary burden to employers. If a manufacturer goes out of business or refuses to provide the required certification, the employer may be subject to enforcement liability without evidence that a hazard exists. A discussion on allowing the employer or a third party to perform the required testing should take place to ensure equivalent safety, while possibly posing less of a burden on employers.

Board staff clarifies the Petitioner's request related to the re-labeling of piping as pertaining to the certification requirements under section 462(m)(3)(I).

Additionally, Board staff identified provisions under section 462(m)(1) which may benefit from further clarifying the year/edition of the referenced consensus standards (ANSI B31.1 and B31.3) and which elements from the consensus standard that the piping (plastic or otherwise)

must conform. Board staff explains that section 462(m)(1), which reads: “Air piping shall be in accordance with ANSI B31.1 or B31.3,”

lacks the details of “what” shall be in accordance with the consensus standards (e.g. the installation, use, labelling, manufacture, etc.). The consensus standard edition year is also missing within the current regulation, which can lead to confusion over which version applies to an employer. As the consensus standards are lengthy, expensive, and only partially relevant to plastic piping, Board staff believes a discussion should take place to determine if specific requirements could be used to replace the references to the consensus standards.

Board staff recommend the Petition be GRANTED.

DISCUSSION

The Board agrees with the Division that the Petitioner may seek relief through the Board’s permanent variance process. It is important to note that the filing of Petition 588 or subsequent rulemaking does not resolve enforcement action taken by the Division.

However, the Division does not address the Petitioner’s central issues that article 3 should be updated and section 462(m)(3)(l) places undue restrictions related to certifications of plastic piping.

1. Should article 3 be updated?
2. Does section 462(m)(3)(l) place undue restrictions on certifications of plastic piping?

Should Article 3 be Updated?

As stated by the Division, the Petitioner has not made any specific recommendations for changes to title 8, section 462(m). The Board recognizes that no changes were suggested for the broader article 3 as well. The Board staff appropriately highlights that the consensus standard editions referenced in the regulation (ANSI B31.1 and ANSI B31.3) are missing from the current regulation (section 462(m)(1)), which can lead to confusion over which version of each consensus standard applies to the employer.

The Board sees merit in identifying a specific edition for the regulated public to adhere.

Moreover, Board staff’s discussions with manufacturers yielded that updated tests based on American Society for Testing and Materials (ASTM) may exist for testing such plastic materials.

The Board finds that where such tests exist and may enhance the safety of the regulated public, amendments based on those updates should be considered.

Does Section 462(m)(3)(I) Place Undue Restrictions on Certifications of Plastic Piping?

The Division appropriately states that:

Title 8 462(m)(3)(I) allows for the use of pipe that meets or exceeds the requirements in Appendix C. The Division accepts the testing requirements found in the above ASTM standards as meeting or exceeding those found in title 8 section 560, Appendix C.

What is not addressed is the Petitioner's argument included within the attached letter to the petition. The Petitioner argues to comply with the regulation, a "written laboratory certification" from the manufacturer must be submitted to the Division and that is not within the Petitioner's "power to create."

Board staff brings to light areas where the existing regulation under section 462(m)(3) may impose undue restrictions upon the regulated public. The Board finds the limitation under subdivision (m)(3)(I) should be re-examined to determine whether third party certification should be included for acceptance by the Division. Certification of laboratory testing which can only be supplied by the manufacturer does not allow for similar certification prepared based on competently performed tests by third party (e.g. a Nationally Recognized Testing Laboratory (NRTL)). An employer supplying such testing performed by a third party would still not satisfy the requirements of the existing regulation.

CONCLUSION AND ORDER

Having considered Petition 588, and evaluations by the Division and Board staff, the Board hereby **GRANTS** Petition 588 to the extent that the Board request the Division and its pressure vessel safety unit convene an advisory committee to:

- Review relevant testing and consensus standards.
- Discuss any necessary updates to section 462(m), regarding the use of plastic piping for compressed air service.
- Discuss the need to reference the ANSI B31.1 and ANSI B31.3 standards, or if specific requirements can be taken from the standards to aid employers in focusing on the most relevant information.
- Identify and incorporate into the regulation a specific edition year, should the committee decide that references to the standards are necessary.

The Division should extend an invitation to the Petitioner to participate in the advisory committee deliberations.