

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Attachment No. 2

INITIAL STATEMENT OF REASONS**CALIFORNIA CODE OF REGULATIONS**

TITLE 8: Division 1, Chapter 4, Subchapter 7, Article 109, Section 5168
of the General Industry Safety Orders and Chapter 4, Subchapter 15, Article 5, Section 6775 of
the Petroleum Safety Orders-Refining Transportation and Handling.

Static Electricity**SUMMARY**

This rulemaking proposal is based upon an Occupational Safety and Health Appeals Board (OSHAB) Decision After Reconsideration (DAR), Docket 00-R4D2-1108 and 1109 in the Matter of Pacific Resource Recovery, dated April 28, 2004, and tank cleaning standards contained in Chapter 8.12 of the National Fire Protection Association (NFPA) 77, Recommended Practice on Static Electricity, 2007 edition.

The DAR describes an incident in which an employee was using a high pressure water washing sprayer to clean flammable sludge from the interior of a tanker truck with a squeegee when an explosion occurred from within the tank blowing the employee off the top of the truck and killing him. The Division of Occupational Safety and Health determined that both the squeegee and the power spray nozzle of the water washer were potential sources of ignition.

General Industry Safety Orders (GISO) Section 5420 requires tanks and vessels that last contained flammable materials be purged of vapors and assessed for residual flammability. No work involving potential sources of ignition in or in contact with the vessel may be performed until flammability testing indicates it is safe to work. Section 5168 addresses the components of air, steam and inert gas cleaning systems used to clean and purge flammable residues from tanks or vessels and requires that they be bonded to the tank. The DAR establishes the employer did not comply with this requirement because it was believed that the water-based washing system used at the time of the accident was not subject to the requirements of Section 5168 which lists steam but not water. The OSHAB reasoned that water cleaning systems are subject to the requirements of Section 5168 which addresses steam since water is the vaporized state of steam. Water is not specifically mentioned in the standard. Board staff believes that Section 5168 should be amended to include water consistent with the OSHAB DAR.

Board staff notes that the NFPA 77-2007 standard addresses static electricity control in relation to various tank cleaning methods in Chapter 8.12. Section 5168 addresses air, inert gas and

steam but does not address water, nor does it address grit used in grit blasting as potential sources of static electricity. Board staff proposes to include water and grit in Section 5168(b) and Section 6775(c) of the Petroleum Safety Orders (PSO) which are currently identical. In addition, Board staff proposes to amend Section 5168 to add a new subsection based on NFPA 77 language that would address static electricity control for steam cleaning and reference Section 5168, in Section 6775(c).

Board staff believes these proposed amendments will clarify to the employer consistent with the NFPA 77-2007, that 1) Section 5168 applies to water cleaning operations and grit blasting, 2) the components of various cleaning systems as specified are to be grounded as well as bonded and, 3) that prior to beginning cleaning operations on tanks and vessels, the requirements of Section 5420 are to be complied with. The proposal would also update Section 5168 with respect to static electricity control for steam cleaning which can create very large charge densities according to the NFPA 77 standard and increase the potential for static electricity.

This proposed rulemaking action contains nonsubstantive, editorial revisions. These nonsubstantive revisions are not discussed in this Informative Digest. However, these proposed revisions are clearly indicated in the regulatory text in underline and strikeout format. In addition to these nonsubstantive revisions, the following actions are proposed:

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 5168. Static Electricity

This Section addresses operations that have the potential to create static electrical charges (such operations as: use of oxidizers, cleaning operations, and purging). This section also addresses bonding and grounding methods and devices used to control static discharge.

Amendments are proposed to add the terms “water” and “grit” in subsection (b) as cleaning media and specify that the components of the systems that use air, water, grit and steam are to be grounded as well as bonded as currently required. Subsection (b) is amended further by proposed language that reminds the reader that Section 5420 requirements for purging and testing tanks or vessels for residual levels of solvent that could ignite in the presence of an ignition source are to be complied with prior to commencing work.

The proposed amendments are necessary to clarify to the employer that water and grit cleaning systems are static electricity risks to the extent that the components of each system must be grounded and bonded and that the employer must remove residual solvent vapors in tanks and vessels to effectively guard against a fire and/or explosion triggered by static electricity discharge which could result in serious employee injury or death.

A new subsection (e) based on the NFPA 77-2007 standard is proposed to address static electricity control methods for steam cleaning. The proposal is necessary to ensure that static charges generated by the components of a steam cleaning systems are safely dissipated through

grounding and bonding to prevent the propagation of a static charge and ignition contact with flammable vapors resulting in combustion and explosion.

Section 6775. Static Electricity.

This section specifies requirements designed to reduce and control the propagation of static electrical discharge and addresses grounding and bonding methods, strength requirements for ground and bonding conductors, use of flexible conductors, attachment of grounding and bonding clamps and clips and the design of static bonding installations.

Subsection (c) contains language that is identical to that contained in GISO Section 5168(b) addressing the control of static discharge for equipment and various cleaning systems involving the use of steam, air, and inert gas.

Amendments are proposed to add the terms “water” and “grit” in subsection (c) as cleaning media and to specify that the components of the systems that use air, water, grit and steam are to be grounded as well as bonded. Subsection (c) is amended further by proposed language that reminds the reader that the requirements for purging and testing tanks or vessels contained in Sections 5420 and 5168 are to be complied with prior to the start of work.

The proposed amendments are necessary to clarify to the employer that water and grit cleaning systems are static electricity risks to the extent that the components of each system must be grounded and bonded and that the employer must remove residual solvent vapors in tanks and vessels to effectively guard against a fire and/or explosion triggered by static electricity discharge which could result in serious employee injury or death.

DOCUMENTS RELIED UPON

1. Occupational Safety and Health Appeals Board, Decision After Reconsideration in the Matter of Pacific Resource Recovery, Docket 00-R4D2-1108 and 1109, Dated April 28, 2004.
2. National Fire Protection Association (NFPA) 77, Chapter 8.12, Recommended Practice on Static Electricity-2007 Edition.
3. U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.106, Flammable and Combustible Liquids, <http://www.osha.gov>
4. U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1926.151, Fire Prevention, <http://www.osha.gov>

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC
IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any significant cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these standards do not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, the standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed standards do not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendments to these standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.