

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**FINAL STATEMENT OF REASONS****CALIFORNIA CODE OF REGULATIONS**

Title 8, Division 1, Chapter 4, Subchapter 7, Article 69, Section 4530 of the  
General Industry Safety Orders

**Bakery Ovens - Inspections****MODIFICATIONS AND RESPONSES TO COMMENTS RESULTING FROM  
THE 45-DAY PUBLIC COMMENT PERIOD**

There are no modifications to the information contained in the Initial Statement of Reasons except for the following non-substantive, substantive, and sufficiently-related modifications that are the result of public comments and/or Board staff evaluation.

**Section 4530. Bakery Ovens.**  
**Subsection (a)(2).**

Modifications are proposed to delete the specific inspection and testing intervals and instead require all safety devices on ovens to be inspected in accordance with a written inspection and testing program that comports with the scope, inspection, and testing procedures contained in the National Fire Protection Association (NFPA) 86 – 2007; Ovens and Furnaces; Chapter 1; Section 1.1; Scope and Chapter 7; Section 7.5; Inspection, Testing, and Maintenance and the National Fire Protection Association (NFPA) 54 – 2006, National Fuel Gas Code, Annex B.3, Maintenance of Appliances and Equipment, which are incorporated by reference. The proposed modified language, coupled with the existing requirements in Section 3328, are consistent with the requirements in the American National Standard for Bakery Equipment – Safety Requirement (ANSI) Z50.1-2006, Section 9.7, Maintenance Program.

The proposed modifications do not change the overall effect of the language as originally proposed and would require periodic inspections to insure proper functioning of the oven's safety devices and thus the safe operation of the oven. The modifications are necessary to provide reasonable inspection and testing criteria for both the older bakery ovens and the modern bakery ovens with integrated safety device controls used in retail bakery settings. These modifications, including the requirement for a written program, are consistent with what is already required, but on a more generic basis, by General Industry Safety Orders (GISO), Sections 3203 and 3328 pertaining to hazard recognition and documentation and equipment maintenance requirements.

The scope of the referenced national consensus standards contain language that excludes coal and other solid fueled fire ovens and smaller ovens with heating systems that supply a total input of not exceeding 150,000 Btu/hour (44 kW). This is necessary to clarify to the employer that consistent with the intent of the standard, smaller ovens are not subject to the national consensus requirements developed to address hazards specific to larger ovens.

Although the modified proposal does not specify the bi-weekly and annual inspection requirements of 29 CFR 1910.263(l)(9)(ii), it is the Board's opinion that the amended proposal would provide equivalent or greater work place safety than that provided by 29 CFR 1910.263(l)(9)(ii). This opinion is based on the fact that the proposed inspection and testing standards are performance standards that will ensure the safe operation of the bakery ovens. The referenced NFPA 86 - 2007 and NFPA 54 - 2006 standards mandate annual inspection and more frequent testing for specified safety devices. Additionally, the referenced NFPA requirements for other safety devices to be "frequently" inspected and tested provide the necessary flexibility to base inspection and testing frequencies on the application of the oven, consistent with the recommendations of the manufacturer. The Board notes that the modified proposal, combined with the existing requirements of Section 3328 for equipment inspections to be consistent with manufacturer's recommendations, provides for a bakery oven inspection and testing standard consistent with the latest ANSI Z50.1 – 2006 standard.

The Board's opinion regarding equivalency to the requirements of 29 CFR 1910.263(l)(9)(ii) is strengthened by the standard interpretation letter, dated April 2, 1998, to Mr. James T. Knorpp, P.E., of Keller, Texas, regarding the applicability of outdated standards within 29 CFR 1910.263. In that letter, the Director of the Federal OSHA Compliance Programs wrote:

"Employers are encouraged by OSHA to comply with the current revision of a national consensus standard, such as ANSI Z50.1-1994, in place of an applicable OSHA standard based on a previous standard, such as ANSI Z50. 1-1947, as long as the current revision provides at least the level of safety and health otherwise provided by complying with applicable OSHA standard."

Although the modified proposal is not verbatim of the counterpart requirements in 29 CFR 1910.263 (l)(9)(ii), the Board opines that the amended proposal, along with the existing requirements in Section 3328, requiring equipment inspections and operations consistent with manufacturer's recommendations, would provide a requirement entirely consistent with the latest ANSI Z50. 1 – 2006 standard, and would provide equivalent or greater work place safety than that provided by 29 CFR 1910.263(l)(9)(ii).

## SUMMARY AND RESPONSES TO ORAL AND WRITTEN COMMENTS

### I. Written Comments

Patrick Singh, Director of Safety and Loss Control, Corporate Risk Management for Safeway Stores, Inc., Pleasanton, CA, by letter received on June 19, 2008.

#### Commenter No. 1:

Mr. Singh states that this proposal should not be adopted for the following reasons:

- 1) It would not increase the effectiveness on the regulations. Federal OSHA does not enforce the counterpart federal standard upon which this proposal is based because it is based on an outdated standard and is not applicable to current bakery operations. This same outdated requirement will not make Cal/OSHA regulations more effective.
- 2) It is vague in nature. The proposal would be difficult to enforce because of the vague language used. Such vagueness could create confusion and unnecessarily expose employees to electrical hazards.
- 3) It could actually endanger employees by exposing them to electrical hazards. There would be an increased likelihood for employees to be exposed to electrical hazards when inspecting the highly complex industrial ovens and where de-energizing ovens may not be an option.
- 4) It would be difficult to comply and enforce. The proposal would be difficult to enforce because of the vague language used. Such vagueness could create confusion and unnecessarily expose employees to electrical hazards.
- 5) It is not consistent with NFPA 86 which require safety devices on bakery ovens to be inspected by a qualified person at least once a year.
- 6) It would be burdensome to employers without a corresponding increase in workplace safety.
- 7) Ovens of today have many fail safe devices that provide for employee safety. Technological advances in electronics and mechanical engineering has lead to the inclusion of multiple fail safe devices in modern bakery ovens.
- 8) The Federal regulation is based on an outdated national consensus standard.
- 9) The Federal regulation lacks effectiveness as is shown by the fact that it is not enforced.

Mr. Singh stated that the proposal should be changed to be more in keeping with National Fire Protection Agency (NFPA) 86, requiring at least one annual inspection by a manufacturer's representative. He suggested the following language: "All safety devices on ovens shall be inspected not less than once a year by representative of the oven manufacturer or other qualified technicians". Mr. Singh opined that this would ensure that the devices are inspected properly by qualified individuals.

#### Response to Commenter No. 1:

The Board agrees with Mr. Singh to the extent that the proposed language is not clear as to its application and out dated as it is based on the 1947 ANSI Z50.1, a consensus standards that does not take into account current inspection and preventive maintenance requirements of modern ovens and safety devices.

The Board recognizes that the need for preventive maintenance and inspection of numerous types of bakery ovens currently available to the bakery industry can not be addressed by the limited inspection intervals mandated by the original proposal and the federal counterpart standard in 29 CFR, §1910.263(l)(9)(ii). The Board recognizes the necessity and frequency of inspections and testing for bakery oven safety devices may vary from oven to oven and should be based on numerous factors including the bakery oven type, frequency and type of use, the age of the oven components, and the specific oven's history of component failures. Based on its review of the ANSI/NFPA 86-2007 and ANSI Z223.1-2006 standards, the Board notes these standards provide performance based standards that identify what ovens are regulated and the inspection and testing frequency of the oven safety devices.

Therefore, in response to this comment, the Board modifies the proposed language by proposing a performance standard that meets the intent of the federal standard in 29 CFR, §1910.263(l)(9)(ii) by referencing the latest ANSI/NFPA 86-2007 and ANSI Z223.1-2006 standards to ensure bakery oven's safety devices are regularly inspected and tested.

It is appropriate to note that the ANSI Z50.1-2006, Safety Requirements for Bakery Equipment, is a consensus standard widely accepted by the bakery industry and endorsed by the Bakery Industry Suppliers Association, the American Bakers Association, the Biscuit and Cracker Manufacturers Association, the American Society of Baking, and the American Institute of Baking. As stated by the title of Section 4530, the focus of this standard is "bakery ovens" regardless of the type of business the oven is used in. The bakery ovens may be used by commercial, retail and industrial bakeries as well as at institutions like schools, prisons, churches, etc. This modification would limit the regulated bakery ovens consistent with the scope of ANSI/NFPA 86-2007, in Sections 1.1.4 and 1.1.7.

Commenter No. 2:

Pamela B. Williams, Senior Vice President, of the California Retailers Association, Sacramento, CA, and Kristin Power, Vice President, for the California Grocers Association, Sacramento, CA, provided joint written comments, dated June 18, 2008.

Ms. Williams and Ms. Power state the following:

- 1) Neither the federal bakery oven standard nor the associated legislative history clarifies its applicability to retail settings. This casts doubt on whether the proposed standard should apply to retail grocers.
- 2) The proposed regulations should not apply to retail bakery ovens in grocery stores because the primary identifying SIC Code does not identify it as a bakery.

- 3) Based on the lack of related accidents at grocery retailers, there appears to be no need to apply the standard to grocery retailers.
- 4) Because employees would be exposed to electrical hazards and the highly technical nature of modern bakery ovens during inspections, the manufacturers recommend store employees not perform the mandated inspections.
- 5) The bi-weekly inspections would add significant financial burden because the employers would be forced to contract with the manufacturer or an outside company to conduct the inspections.
- 6) The proposal is unclear on several issues including the following:
  - “Qualified person” is not defined.
  - Proof of inspection or recording requirements are not included in the standard.
  - No alternative procedure is provided in the event the manufacturer is no longer in business.

Response to Commenter No. 2:

See the Response to Commenter No. 1. As stated in this response, the proposal is being modified to reference appropriate national consensus standards, and this modification addresses most of these commenters’ concerns. However, since the federal standard does not limit that standard’s applicability to a particular type of business, neither does this proposal. Also, the federal regulation’s application is not limited in light of the financial burden it imposes. The removal of the term “qualified person” eliminates concern about that term, and the modification of the proposal, as indicated in the Response to Commenter No. 1, addresses the concerns about recording requirements and alternative procedures.

Commenter No. 3:

Ken Nishiyama Atha, Regional Administrator, U.S. Department of Labor, Occupational Safety and Health Administration, Region 9, by letter dated May 21, 2008.

The Occupational Safety and Health Administration concurs that original proposal is at least as effective as the federal counterpart standard 29 CFR §1910.263(l)(9)(ii).

Response to Commenter No. 3:

The Board thanks Mr. Nishiyama Atha of the Occupational Safety and Health Administration for his interest and participation in this proposal.

II. Oral Comments

Patrick Singh, Director of Safety and Loss Control, Corporate Risk Management, for Safeway Stores, Inc., Pleasanton, CA.

Commenter No. 4:

Patrick Singh, Director of Safety and Loss Control, Corporate Risk Management, for Safeway Stores, Inc., supplemented his written comments by stating the following:

- The proposal is vague and confusing, in regards to the definitions of the terms “bakery”, “inspection”, and “safety device”.
- The proposal would expose employees to unnecessary risk of electrical hazards.
- The bi-weekly inspections would be unnecessarily burdensome to employers.
- The proposed standard would not increase workplace safety.
- The counterpart federal standard is based on an outdated consensus standard and was not intended to regulate bakery ovens in retail settings, but to regulate ovens in commercial bakeries.

Mr. Singh recommended changing the proposal to be more consistent with National Fire Protection Agency (NFPA) 86 which requires safety devices on bakery ovens to be inspected by a qualified person at least once a year.

Response to Commenter No. 4:

See the Board’s Response to Commenter No. 1.

Commenter No. 5:

Mr. Willie Washington, Occupational Safety and Health Standards Board Member.

Mr. Washington expressed concern that small retail facilities, such as fast food restaurants and grocery stores, would be defined as bakeries under the proposal and asked whether there had been stakeholder input in the development of the proposal. Mr. Washington also asked whether the American Retail Bakers’ Association represented both commercial bakeries and bakery ovens in small retail facilities, such as fast food restaurants and grocery stores.

Response to Commenter No. 5:

The Board recognizes that a representative from the American Retail Bakers’ Association (ARBA) was contacted by staff during the formation of the language, and no objections or concerns were expressed about the proposal at that time. While the federal standard does not define “bakery,” that term is defined in the Standard Industrial Classification Codes. The Board also notes that the federal and state standard is specific to bakery ovens regardless of the industry they are used in. It is the Board’s understanding that the ARBA represents employers who operate bakery ovens in small retail facilities. Because the modified proposal adopts the scope of the NFPA 86 including a minimum input of 150,000 Btu/hr (44 kW) by reference, smaller ovens operated in retail facilities would be exempt from these requirements. Smaller ovens and related equipment/machinery are covered by the requirements of GISO, Section 3203, Injury and

Illness Prevention Program and Section 3328 which addresses the use and maintenance of equipment/machinery.

Commenter No. 6:

Mr. Bill Jackson, Occupational Safety and Health Standards Board Member.

Mr. Jackson expressed concern about properly defining the terms in the standard and the oven manufacturers' required inspections. He also expressed concern that the standard addresses ovens that may have been manufactured by a company no longer in business and ovens made by foreign manufacturers.

Response to Commenter No. 6:

The Board agrees with Mr. Jackson and has modified the proposal to provide the necessary guidance for those employers that have such ovens by referencing the performance standards in the NFPA 86-2007 and NFPA 54-2006 standards which clearly identify what ovens are regulated and what safety devices and oven components require an inspection and testing and at what frequency.

Comment No. 7:

Mr. John MacLeod, Chairman, Occupational Safety and Health Standards Board Member.

Chairman MacLeod asked whether the Division request that prompted the development of the proposal was based on a citable incident or whether it was simply a matter of making the regulation at least as effective as the counterpart federal regulation.

Response to Commenter No. 7:

The Board notes testimony by Mr. Larry McCune, representing the Division of Occupational Safety and Health, who responded that the proposal originated from field inspections in which the Division was performing "sweeps" of bakeries and similar establishments. The Division inspectors determined that there was not an inspection requirement in California, as there is in the federal standard.

**MODIFICATIONS RESULTING FROM  
THE 15-DAY NOTICE OF PROPOSED MODIFICATIONS**

No further modifications to the information contained in the Initial Statement of Reasons are proposed as a result of the 15-Day Notice of Proposed Modifications mailed on October 21, 2008.

## SUMMARY AND RESPONSE TO WRITTEN COMMENTS

Patrick Singh, Director of Safety and Loss Control, Corporate Risk Management for Safeway Stores, Inc., Pleasanton, California, by letter received on October 21, 2008.

### Comment No. 1:

Mr. Singh stated that the language in Section 4530(a)(1) should clarify how retail bakeries can comply with the requirement for bakery ovens to be so located that possible fire and explosion will not expose groups of persons to possible injury. Mr. Singh noted that the ovens in retail bakeries are generally located in close proximity to sales areas.

### Response to Comment No. 1:

The Board notes that Mr. Singh's comment regarding the placement requirements of bakery ovens in Section 4530(a)(1) is outside the scope of the 15-Day Notice of Proposed Modifications. Therefore, no response to this comment is warranted, and therefore, no modification to the proposal is necessary.

### Comment No. 2:

Mr. Singh stated that the requirement in Section 4530(a)(2) for a written inspection and testing program plan is unnecessary and could be burdensome to employers with multiple locations. Mr. Singh stated that there is no similar requirement in the Federal regulations and having it in writing will not increase safety or eliminate any hazards.

### Response to Comment No. 2:

The Board disagrees with Mr. Singh's comment that the requirement in Section 4530(a)(2) for a written inspection and testing program is unnecessary and could be burdensome to employers with multiple locations. The Board notes that the requirement in Section 4530(a)(2) for a written inspection and testing program is merely a clarification of what is already required by General Industry Safety Orders, Sections 3203 pertaining to inspection and hazard recognition requirements. The Board notes that employers utilizing bakery ovens in their places of employment are currently required to have a written injury and illness prevention program that addresses the inspection and testing of the bakery ovens. Employers using bakery ovens in their places of employment who are in compliance with the requirements and intent of the Injury and Illness Prevention Program pursuant to Section 3203 should be in compliance with the requirement in Section 4530(a)(2). By underscoring and providing clarification regarding this requirement, the proposal facilitates employer compliance and enhances employee safety. The Board finds that the proposal is consistent with the safe operation and maintenance of bakery ovens and industry practice. Such ovens, when not properly inspected, tested and maintained

can result in catastrophic failures and in serious injury or death to employees. The Board, therefore, finds that a modification to the proposal in Section 4530(a)(2) regarding the written inspection and testing program is not warranted, and therefore, no modifications are necessary.

Comment No. 3:

Mr. Singh stated that the requirement in Section 4530(a)(2) for the inspection and testing program to be in accordance with the scope, inspection and testing provisions of the NFPA 86-2007, Standard for Ovens and Furnaces, Chapter 7, Section 7.5 and NFPA 54- 2006/ ANSI Z223.1-2006, National Fuel Gas Code, Annex B.3 could be burdensome to some employees as these documents are very technical and require expertise to interpret and does not define what types of oven are subject to the inspection and testing requirement of the standard. Mr. Singh recommends the proposed requirement in Section 4530(a)(2) be modified to read as follows:

“Inspection and testing of all safety devices on ovens shall be done by a qualified individual and or manufactures representative as per industry standard at least once a year.”

Response to Comment No. 3:

The Board disagrees with Mr. Singh’s comment. The language of the referenced national consensus standards is industry consensus language and is written in terms that are understood by bakery employers. The oven manufacturer or the manufacturer’s representative installing the oven would be in a position to provide the new owner/operator of the oven with the well written and clear inspection and testing requirements consistent with these standards. Additionally, these NFPA and ANSI standards are written in easy to understand language and are readily accessible at public libraries or through bakery associations to provide the employer with the necessary information to develop a compliant inspection and testing program. Additionally, the ovens subject to the proposed standard are clearly defined in the scope of the referenced NFPA 86, Chapter 1, Section 1.1, hence the inclusion of this chapter and section in the reference incorporated in the proposed regulatory text. Additionally, the Board notes that the proposed standard applies to ovens used in retail settings as well as the very large industrial bakery ovens. The referenced NFPA and ANSI standards address effectively the inspection and testing needs of the wide range of bakery ovens and clearly exclude bakery ovens not intended to be regulated by the proposed standard. For example, the referenced NFPA 86, Chapter 1, Section 1.1, states that baking ovens with a total input not exceeding 150,000 Btu/hr (44 kW) are excluded. These smaller excluded baking ovens are commonly found in sandwich shops and restaurants that bake bread on the premises. Bakery ovens that are solid fuel-fired are similarly excluded.

The referenced standards are similarly clear as to what is required of operators of ovens regulated by this standard in terms of inspection and safe maintenance of the ovens. The following are some examples of the stated NFPA 86 and NFPA 54 inspection, testing and maintenance requirements:

- Safety devices must be maintained in accordance with the manufacturer’s instructions.

- All safety interlocks shall be tested for function at least annually.
- The set point of temperature, pressure, or flow devices used as safety interlocks shall be verified at least annually.
- Safety device testing shall be documented at least annually.
- Calibration of continuous vapor concentration high limit controllers shall be performed in accordance with the manufacturer's instructions and shall be performed at least once per month.
- Pressure and explosion relief devices shall be visually inspected at least annually to ensure that they are unobstructed and properly labeled.
- Valve seat leakage testing of safety shutoff valves and valve proving systems shall be performed in accordance with the manufacturer's instructions. Testing frequency shall be at least annually.
- All safety interlocks shall be tested for function at least annually.
- The set point of temperature, pressure, or flow devices used as safety interlocks shall be verified at least annually.
- Burners and pilots should be kept clean and in proper operating condition. Burner refractory parts should be examined at frequent regular intervals to ensure good condition.
- Where automatic flame safeguards are used, a complete shutdown and restart should be made at frequent intervals to check the components for proper operation.

The latter requirement found in Section B.3.3. of the NFPA 86, addresses the safety devices common in modern bakery ovens used by the retail bakeries where the safety devices are automatically tested and checked for proper functioning. As identified in the NFPA 86 standard, Board staff recognizes the value of such integrated safety checks ensuring the safe operation of the bakery ovens and opines that such automated check may well meet a requirement in the standard for periodic testing if the manufacturer recognizes such automated checks as adequate measures to ensure the safe operation of the oven. The Board, therefore, finds that a modification to the proposal in Section 4530(a)(2) to delete the reference to the said NFPA and ANSI standard and replacing it with Mr. Singh's suggested wording is not warranted, and therefore, no modification to the proposed standard is neither necessary nor advisable.

Comment No. 4:

Mr. Singh stated that the requirements regarding the main shutoff valves in Section 4530(a)(3) are vague, burdensome, and not practical. These requirements may be difficult to execute during production as the configuration of some ovens may require an employee to enter the oven to pull out or place a baking rack. Additionally, Mr. Singh stated that shutting off the gas valve may not be feasible because of the location of the valve and that such shut off of gas may require a technician to be called to cycle the electronics back on. Mr. Singh stated that when ovens are being serviced they should be locked out but not during production for occasional and momentary entries. Mr. Singh recommends the proposed requirement in Section 4530(a)(3) be modified to read as follows:

“Main shutoff valves shall be locked in the closed position when a person must enter to service the oven.”

Response to Comment No. 4:

The Board notes that Mr. Singh’s comment regarding the requirements for the main shutoff valves in Section 4530(a)(3) is outside the scope of this 15-Day Notice of Proposed Modifications. Therefore, no response to the comment is warranted, and therefore, no modification to the proposal is necessary.

The Board thanks Mr. Singh for his comments and participation in the Board’s rulemaking process.

ADDITIONAL DOCUMENTS RELIED UPON

1. American National Standard for Bakery Equipment – Safety Requirements (ANSI) Z50.1-2006, Bakery Equipment – Safety Requirements, Chapter 9, Ovens and Product Dryers, Section 9.7, Maintenance Program.
2. Standard Interpretations, the United States Department of Labor, Occupational Safety and Health Administration, 04/02/1998 – Brake design requirements for bakery equipment.
3. Standard Interpretations, the United States Department of Labor, Occupational Safety and Health Administration, 04/24/1998 – Annual inspection of bakery ovens by qualified person.

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.

ADDITIONAL DOCUMENTS INCORPORATED BY REFERENCE

1. National Fire Protection Association (NFPA) 86-2007; Ovens and Furnaces; Chapter 1; Section 1.1; Scope and Chapter 7; Section 7.5; Inspection, Testing, and Maintenance.
2. NFPA 54-2006/American National Standards Institute (ANSI Z223.1-2006), National Fuel Gas Code, Annex B.3, Maintenance of Appliances and Equipment.

These documents are too cumbersome or impractical to publish in Title 8. Therefore, it is proposed to incorporate the documents by reference. Copies of 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.

### DETERMINATION OF MANDATE

These standards do not impose a mandate on local agencies or school districts as indicated in the Initial Statement of Reasons.

### ALTERNATIVES CONSIDERED

The Board invited interested persons to present statements or arguments with respect to alternatives to the proposed standard. No alternative considered by the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons than the adopted action.