

State of California
Department of Industrial Relations
Occupational Safety and Health Standards Board

Petition File No. 606

Board Staff Evaluation
Maryrose Chan, Senior Safety Engineer

December 11, 2024



State of California
Gavin Newsom, Governor

INTRODUCTION

On August 27, 2024, a petition was submitted by a private citizen via e-mail.

REQUESTED ACTION

The Petitioner requested to add a subsection to permit the use of internationally standardized pictogram as exit signs.

Proposed amendment:

Section 3216. Exit Signs.

(d) Option To Use Internationally-Standardized Pictogram. In lieu of or in addition to the word "EXIT", exit signs may contain the pictogram for an emergency exit as specified in Standard 7010 as published by the International Organization for Standardization. The pictogram shall be at least 6 inches in height.

PETITIONER'S ASSERTIONS

- Internationally standardized pictograms are easier to understand and accessible to everyone regardless of the language.
- The Petitioner states that since 2003, NFPA 101 Life Safety Code published by the National Fire Protection Association expressly allows the internationally standardized pictograms on exit signs, including in lieu of the word "Exit", if allowed by the state/local jurisdiction.
- Federal OSHA has recognized the new NFPA 101 pictograms to be compliant with their regulations.

STAFF EVALUATION

Board staff reviewed the [Federal OSHA Letter of Interpretation on Exit Signs](#) and relevant standards on Exits and consulted the California Building Standards Commission.

The Federal OSHA Letter of Interpretation does not prohibit the use of pictograms, as requested by the Petitioner. However, a deference is given to state and local jurisdictions.

The Building Standards Commission referred staff to the Department of Housing and Community Development (HCD), Division of State Architects (DSA) and Office of State Fire Marshall (SFM).

According to an e-mail from a DSA representative dated September 17, 2024, where HCD and SFM were copied:

“While I feel that the petitioners proposal for an option to the current requirement has merit, because California adopts the International Building Code (IBC) and International Fire Code (IFC) as the model code basis for the California Building Standards Code, any such change to the exit sign criteria would need to be processed through the International Code Council (ICC) for inclusion in future editions of the IBC and IFC, or the Office of the State Fire Marshal to be processed as an amendment to the California Codes.”

In a follow-up e-mail dated October 17, 2024, the Chief of Code Development of the State Fire Marshall Office confirmed that they agreed with DSA.

Relevant Standards

California Standards

Title 8, Section 3216. Exit Signs.

(a) Luminance. Exit and directional signs shall have a luminance on the face of such signs of not less than 50 lux. The words used on such signs shall be in block letters at least 6 inches in height with a stroke of not less than 3/4 inch.

Exception: Existing signs may have the word "EXIT" in lettering not less than 5 inches high with principal strokes of letters of not less than 1/2 inch. Letters shall be of such color or design as to be in strong contrast to the background of the sign. Arrows or other directional symbols shall be of equal visibility to that stipulated herein for letters.

(c) Electrically Illuminated Signs. Exit and exit directional signs which are required to be electrically illuminated shall be lighted with two electric lamps, either one of which shall be sufficient to provide the required luminance on the face of the sign.

NOTE: Radioactive isotope self powered signs with a luminance of not less than 0.02 lamberts during its useful life will be acceptable.

2022 California Building Code, Title 24, Part 2, Chapter 10. Means of Egress Section 1013 Exit Signs

1013.1 Where required

Exits and exit access doors shall be marked by an approved exit sign readily visible from and direction of egress travel. The path of egress travel to exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that any point in an exit access corridor or exit passageway is within 100 feet (30 480 mm) or listed viewing distance of the sign, whenever is less, from the nearest exit sign

1013.6 Externally illuminated exit signs.

Externally illuminated signs shall comply with Section 1013.6.1 through 1013.6.3

1013.6.1 Graphics.

Every sign and directional exit sign shall have plainly legible letters not less than 6 inches (152 mm) high with principal strokes of letters not less than $\frac{3}{4}$ inch (19.1 mm) wide. The word "EXIT" shall have letter having a width not less than 2 inches (51 mm) wide except the letter "I", and the minimum spacing between letters shall be not less than $\frac{3}{8}$ inch (9.5mm). Signs larger than the minimum established in this section shall have widths, strokes and spacing in proportion to their height.

The word "EXIT" shall be in contrast with the background and shall be clearly discernible when the means of exit sign illumination is or is not energized. If a chevron directional indication is provided as part of the exit sign, the construction shall be such that the direction of the chevron directional indicator cannot be readily changed.

1013.6.2 Exit sign illumination.

The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 footcandles (54 lux).

1013.6.3 Power source.

Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination shall be connected to an emergency power system provided from batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27. Group I-2 exit sign illumination shall not be provided by unit equipment batteries only.

Exception: Approved exit sign illumination types that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.

Federal Standards

General Industry

29 CFR 1910.35. Compliance with alternate exit-route codes

OSHA will deem an employer demonstrating compliance with the exit-route provisions of NFPA 101, Life Safety Code, 2009 edition, or the exit-route provisions of the International Fire Code, 2009 edition, to be in compliance with the corresponding requirements in §§ 1910.34, 1910.36, and 1910.37 (incorporated by reference, see section § 1910.6).

29 CFR 1910.37. Maintenance, safeguards, and operational features for exit routes

(b) Lighting and marking must be adequate and appropriate

(2) Each exit must be clearly visible and marked by a sign reading "Exit."

(6) Each exit sign must be illuminated to a surface value of at least five foot-candles (54 lux) by a reliable light source and be distinctive in color. Self-luminous or electroluminescent signs that have a minimum luminance surface value of at least .06 footlamberts (0.21 cd/m²) are permitted.

(7) Each exit sign must have the word "Exit" in plainly legible letters not less than six inches (15.2 cm) high, with the principal strokes of the letters in the word "Exit" not less than three-fourths of an inch (1.9 cm) wide.

Consensus Standards

NFPA 101, Life Safety Code

Chapter 7. Means of Egress

7.10.3 Sign Legend






7.10.3.1 Signs required by 7.10.1 and 7.10.2 shall read as follows in plain legible letter or other appropriate wording shall be used.

EXIT

7.10.3.2 Where approved by the authority having jurisdiction, pictogram in compliance with NFAP 170 shall be permitted.

NFPA 170 2024 Standard for Fire Safety and Emergency Symbols

Table 4.2 Symbols for General Use

Symbol	Characteristics	Application	Example
Emergency Exit 	Square field Background green Door opening white Image green	The identification and location of an emergency exit	The location of an exit for use in a fire emergency
Emergency Exit Use of Arrows — Rectangular Field 	Painted version: Background color white Arrows red or black Backlit version: Doorway, arrows, and lettering in green or red	The identification and location of a route to an emergency exit	Progress to the right
	Painted version: Background color white Arrows red or black Backlit version: Doorway, arrows, and lettering in green or red	The identification and location of a route to an emergency exit	Progress up and to the right
	Painted version: Background color white Arrows red or black Backlit version: Doorway, arrows, and lettering in green or red	The identification and location of a route to an emergency exit	Progress down and to the right
	Painted version: Background color white Arrows red or black Backlit version:	The identification and location of a route to an emergency exit	Progress forward

**Incomplete*

ISO 7010:2019, Graphical symbols – Safety – colours and safety signs – Registered safety signs

Abstract:

This document prescribes safety signs for the purposes of accident prevention, fire protection, health hazard information and emergency evacuation.

The shape and colour of each safety sign are according to ISO 3864-1 and the design of the graphical symbols is according to ISO 3864-3.

This document is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signaling used for guiding rail, road, river, maritime and air traffic and, in general, to those sectors subject to a regulation which may differ with regard to certain points of this document and of the ISO 3864 series.

Staff Analysis

Exit signs affect all commercial and public buildings, thus the need for consistency in displaying the message of emergency exits to all occupants of various buildings (retail, schools, theatres, hospitals, etc.) throughout the state of California. Amendments to Exit signs should be first undertaken by the Building Standards Commission under title 24 before amendments to title 8 section 3216 are initiated.

Historically, title 8 section 3216 was consistent with sections of title 24 California Building Code pertaining to exit signs because the Board was part of the Coordinating Council. However, after the passage of Assembly Bill 3000 in 2002, OSHSB no longer formally coordinates with the Building Code. The Bill amended section 18909 to state:

Section 18909 of the Health and Safety Code

(j) "Building standard" does not include any regulation adopted by the California Integrated Waste Management Board, the Department of Toxic Substances Control, the Occupational Safety and Health Standards Board, or the State Water Resources Control Board concerning the discharge of waste to land or the treatment, transfer, storage, resource recovery, disposal, or recycling of the waste.

Title 24 is updated and published triennially and over the years, title 8 section 3216 has not kept up with changes in title 24. There are discrepancies such as the exception to the size of the letters, illuminance level and power requirements. Despite this, the principle of consistency should remain. All exit sign requirements should be the same throughout California.

It should be noted that the Petitioner filed a similar petition with the Building Standards Commission. As stated by DSA, California adopts the International Building Code (IBC) and International Fire Code (IFC) as the model code basis for the California Building Standards Code. However, the State Fire Marshall can process a State amendment. Thus, Board staff recommends the petitioner work with agencies that have local jurisdiction and continue to work with the Building Standards Commission.

OSHSB is ready to engage in the rulemaking process to update our existing regulation after the outcome of the Petitioner's petition to the Building Standards Commission is decided by the State Fire Marshall and the title 24 regulations are amended. If the Building Standards Commission chooses to update their regulations to add the use of symbols as proposed by the Petitioner, it would not contradict Federal OSHA.

STAFF RECOMMENDATION

Board staff recommends Petition File No. 606 be DENIED to assure consistency throughout California. Local jurisdictions, such as cities and counties adopt ordinances based on title 24 regulations. Regulatory changes relating to Exit signs should first undergo the rulemaking process by the Building Standards Commission prior to amending title 8.