

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

Petition File No. 614

Board Staff Evaluation
Submitted by: Mike Nelmda, Senior Safety Engineer

September 29, 2026



State of California
Gavin Newsom, Governor

INTRODUCTION

Petition 614 was submitted by Daniel J. Mustico, Senior Vice President, Government & Market Affairs Outdoor Power Equipment Institute, Inc. (Petitioner). The petition seeks to amend title 8, section 3563 Power Lawn Mowers, to revise and update references to various American National Standards Institute (ANSI) B71 and the Outdoor Power Equipment Institute (OPEI) standards that specify safety specifications for powered equipment used in turf care and maintenance. The Petitioner identifies and requests additional Underwriters Laboratories (UL) consensus standards be added.

REQUESTED ACTION

- Amend section 3563(a) relocating referenced ANSI B71 standard to subsection 3563(b)(2);
- Amend section 3563(b)(2) references to ANSI B71 to include “OPEI” as part of the consensus code designation;
- Amend section 3563(b)(2) to include references to ANSI/OPEI B71.4 2012 and 2014;
- Amend section 3563(b)(2) to include the 2024 editions of ANSI/OPEI 5395-2 and 5395-3;
- Amend section 3563(b)(2) to include Underwriters Laboratories standards UL 62841-4-3-2023, UL 1447-2017 and UL 2753-2018; and
- Repeal section 3563(b)(3).

BACKGROUND/HISTORY

Section 3563 was last amended by the Board in 2009. The amendments included, in relevant part, the incorporation by reference ANSI B71 standards found in subsection (b)(2). The regulation was developed with the aid of an advisory committee chaired by the Board staff. The committee met on October 28-29, 2008, and a subcommittee was formed and met on December 16, 2008.

Notice of proposed action October 30, 2009, Register 2009 No. 44-Z

The advisory committee including manufacturer representatives agreed that a statement of compliance with the applicable ANSI B71.1 or [B71].4 standard would have the effect of assisting both the employer and the Division in determining that the mower is in compliance with the provisions of subsection (b)(2).

Federal Requirements

Occupational Safety and Health Administration (29 CFR)

Federal OSHA requirements for powered lawn mowers are codified in 29 CFR 1910.243(e). Prior to 2005, 29 CFR 1910.243 required certain powered lawnmowers to meet the requirements of ANSI B71.1-1968.

On Sept. 13, 2005, Federal OSHA¹, “[revoked] from its portable powered tools standard the provision that certain power lawnmowers designed for sale to the general public meet the American National Standard Safety Specifications for Power Lawnmowers, ANSI B71.1–X1968 (ANSI B71.1–1968).”

Instead, Federal OSHA referenced the general machine guarding standard in 29 CFR 1910.212.

Federal OSHA further explained that:

[...] virtually all of the specific provisions contained in ANSI B71.1–1968 are included in the text of 29 CFR 1910.243(e). [Federal] OSHA considered updating the 1968 ANSI reference to the 1998 version of ANSI B71.1 but determined that doing so would not clarify the standard because the scope of the 1998 version would raise additional issues for compliance that are not encountered under the existing [Federal] OSHA standard.

Since Federal OSHA no longer references B71.1, powered lawn mowers requirements are accessible directly by the employers and end users.

Consumer Products Safety Commission (16 CFR)

The Consumer Products Safety Commission has adopted regulations which cover the Consumer Products Safety Act, Title 16, Code of Federal Regulation, Part 1205 – Safety Standard for Walk-Behind Power Lawn Mowers.

This subpart A of part 1205 is a consumer product safety standard which prescribes safety requirements for certain walk-behind power lawn mowers, including labeling and performance requirements. The performance requirements of the standard apply to rotary mowers. The labeling requirements apply to both rotary and reel-type mowers. The standard is intended to reduce the risk of injury to consumers caused by contact, primarily of the foot and hand, with the rotating blade of the mower.

Consensus Standards

The ANSI/OPEI and UL standards are voluntary consensus standards. Powered lawn mowers are manufactured to meet various national and international consensus standards. IEC 62841-4-3 addresses electric and battery powered lawnmowers. Robotic lawnmowers are covered by IEC 60335-2-107 and will be covered by a future part of IEC 62841. Additional standards are forthcoming. For example, ISO/AWI 18460

¹ Federal Register, Vol 70, No. 176, page [53925](#), (Accessed May 1, 2026)

Powered lawn and garden equipment — Internal-combustion engine-powered autonomous lawnmowers are currently in development.

Powered Lawn Mowers

ANSI/OPEI consensus codes

ANSI/OPEI B71.1 (consumer) and B71.4 (commercial) for decades have served as the consensus codes regarding consumer (residential) and commercial lawn mower standards. In 2024, OPEI replaced B71.1 and B71.4 with ANSI/OPEI 5395 (-1, -2 and -3) to harmonize with international mower standards (ISO 5395). Voluntary compliance by manufacturers of powered lawn mowers with ANSI/OPEI 5395 is expected to begin 2 years after the ANSI publication date.

Electric and Battery Powered Lawn Mowers

UL 2753-1 and UL 1447.4

Unlike B71.1 and B71.4, ANSI/OPEI 5395 requirements do not extend to electric or battery powered lawn mowers. Voluntary consensus standards for electric or battery powered lawn mowers, UL 2753-1 and UL 1447.4 both require conformance with ANSI B71.1. Board staff is not aware of any efforts to update the requirements of UL 2753-1 and UL 1447.4 to reference the newer ANSI/OPEI 5395 instead of B71.1.

UL 62841-4-3: Particular requirements for pedestrian controlled walk-behind lawnmowers

UL 62841-4-3 applies to the design of pedestrian controlled walk-behind cylindrical lawnmowers and rotary lawnmowers equipped with metallic cutting means; rigid non-metallic cutting means; or non-metallic cutting means with one or more elements pivotally mounted on a generally circular drive unit, where these cutting elements rely on centrifugal force to achieve cutting and have a kinetic energy for each single cutting element of greater than 10 J [kg-m²/s²]. UL 62841-4-3 does include a number of references to ISO 5395 and B71.1.

Staff Analysis

Background

The California Air Resources Board in 2022 estimated:

	Lawn Mowers	Riding Mowers
Landscapers	136,242	15,462
Non-landscapers	135,402	7,617

According to federal OSHA data there have been 30 non-fatal incidents and 2 fatal incidents from 2014 – 2023² involving lawn mowers in California.

Board staff inquired from Cal/OSHA whether title 8, section 3563(b)(2) and 3563(b)(3) have been cited during the period beginning in 2014 through 2024. Cal/OSHA reported that there are no citations for section 3563(b)(2) or (3) were issued by Cal/OSHA in that period.

Analysis of Petitioner’s specific requests

Section 3563(a)

Section 3563(a) states in the part relevant to Petitioner’s request:

[...] These regulations do not apply to [...] tractors as defined in Article 25 of these Orders³ unless the tractor is designed primarily for mowing lawns and manufactured in conformance with the ANSI B71.1 or B71.4 national consensus standards for power lawn mowers.[...]

The Petitioner’s request would amend the scope read as follows:

[...] These regulations do not apply to [...] tractors as defined in Article 25 of these Orders unless the tractor is designed primarily for mowing lawns and manufactured in conformance with the applicable standards in clause (b) below.

The Petitioner requests amendments to expand the scope of section 3563, in subsection (a) to include tractors manufactured in conformance with the OPEI 5395-3, UL 1447, 2753. The scope of OPEI 5395-2 and UL 62841-4-3 do not include tractors. The effect of the Petitioner’s proposal would extend coverage to newer models of powered lawn mowers. These additional units would not be covered under the regulation without the proposed amendment. Retaining coverage for electric/battery powered units would be accomplished through the adoption of the UL codes.

² Amputation (18), Avulsion (1), Burns (1), Crushed by (1), Fall (1), Fracture (2), Laceration (3), Pinch point (1), Pulled-in (1), Roll Over (2) and Struck by (1)

³ Section 3649 defines “Industrial Tractor” as “A wheel or track-type vehicle of more than 20 engine horsepower used in operations such as landscaping, construction services, loading, digging, grounds keeping, and highway maintenance.” Additionally, “Agricultural Tractor” is defined as “A wheel type vehicle, or track vehicle, of more than 20 engine horsepower, designed to furnish the power to pull, carry, propel, or drive implements that are designed for agriculture. All self-propelled implements are excluded.”

The Petitioner's also proposes repealing the last sentence in subsection 3563(a):

[...]Requirements for tractors and attachments used in mowing operation that are manufactured in conformance with the ANSI B71.1 and B71.4 standards are provided in this Section.

Board staff is not aware of any expansion or contraction of the scope of section 3563(a) introduced by this amendment.

Section 3563(b)(2)

Section 3563(b)(2) states in part:

Power lawn mowers manufactured after April 15, 1999, shall meet the requirements of one of the following ANSI B71.1 or B71.4 standards, as applicable, based on the mower design and date of manufacture.[...]

The Petitioner's proposal in part:

(2) Power lawn mowers manufactured after April 15, 1999, shall meet the requirements of one of the following ANSI/OPEI B71.1 or B71.4 standards, or ANSI/OPEI 5395-2, 5395-3, or UL 62841-4-3, 1447, 2753, as applicable, based on the mower design and date of manufacture.

The Petitioner seeks to expand coverage includes powered lawn mowers manufactured to conform to newer ANSI/OPEI codes and retain coverage of battery/electric powered lawn mowers that are manufactured to conform to recent edition of the B71.1 and B71.4 and relevant UL codes. Specifically, the Petitioner's requested changes to section 3563(b)(2) to include updates editions of the B71.1 and B71.4. The proposed change seeks to incorporate by reference the 2012 and 2017 editions of B71.1 and B71.4. Further, the Petitioner seeks to include the 2024 editions of ANSI/OPEI 5393-2 and 3. Finally, the Petitioner proposes to also incorporate by reference UL 62841, UL 1447 and UL 2753 to address electric and battery powered lawn mowers.

The following are the specific consensus code which the Petitioner requests for inclusion into title 8:

- ANSI/OPEI B71.1-2012 standard for Consumer Turf Care Equipment Walk-Behind Mowers and Ride-On Machines with Mowers-Safety Specifications;
- ANSI/OPEI B71.1-2017 standard for Consumer Turf Care Equipment Walk-Behind Mowers and Ride-On Machines with Mowers-Safety Specifications;
- ANSI/OPEI B71.4-2012 standard for Commercial Turf Care Equipment Safety Specifications;
- ANSI/OPEI B71.4-2017 standard for Commercial Turf Care Equipment-Safety Specifications;

- ANSI/OPEI 5395-2-2024 standard for Combustion-Engine-Powered Lawnmowers – Part 2: Pedestrian-Controlled Lawnmowers;
- ANSI/OPEI 5395-3-2024 standard for Combustion-Engine-Powered Lawnmowers – Part 3: Ride-On Lawnmowers;
- UL 62841-4-3-2023 standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 4-3: Particular Requirements for Pedestrian Controlled Walk-Behind Lawnmowers;
- UL 1447-2017 standard for Electric Lawn Mowers; and
- UL 2753-2018 Outline of Investigation for Battery Operated Ride-On Lawn Mowers.

In subsequent discussions with the Petitioner, the Petitioner explained that the new ANSI/OPEI 5395-2 and 5395-3 were based upon the International Organization for Standardization (ISO) code for “Garden Equipment.” Additionally, battery and electric powered lawn mowers were not covered under the ANSI/OPEI standards. Consensus standards for battery and electric powered lawn mowers are published by UL.

Board staff infers that the Petitioner’s concern is that voluntary compliance with the ANSI/OPEI 5395-2 and -3 would shift newly manufactured powered lawn mowers away from the criteria required under ANSI/OPEI B71.1 and B71.4 and thus no longer consistent with title 8, section 3563(b)(2) and (3). Board staff shares the concern that newer and electric powered lawn mowers require updated references under section 3563.

Incorporation by reference of each edition of the OPEI and UL codes, however, creates a burden upon the regulated public and the rulemaking process. Employers and end users’ access to these consensus codes comes at a financial cost in addition to the cost of the powered lawn mower; with only marginal benefit. Employers and end users do not design, test or certify powered lawn mowers. Instead, employers and end users look for guidance in the information provided by the manufacturer of powered lawn mower (e.g. operator’s manuals⁴). Employers and end users derive a benefit from the manufacturers’ adherence to the voluntary codes rather than employers and end users applying the code directly.

Board staff also recognized that California’s regulatory framework relies directly upon the consensus codes for safety requirements. Unlike Federal OSHA’s requirements, the consensus codes interweave the guarding requirements throughout their texts. The ANSI codes, for example, contain blade enclosure requirements and limit the openings to the spinning blades. The criteria for low voltage components, controls, brakes and signage are also described in the consensus codes. The consensus codes offer

⁴ Some of the consensus codes such as B71.1 and B71.4 contain “Safe Practices” must be provided with the equipment.

specificity in what components need to be guarded and the configurations of those guards rather than applying general guarding requirements (e.g. Federal OSHA's reliance upon 29 CFR 1910.212).

California's reliance upon incorporating by reference limits title 8 regulations to the scopes of consensus codes adopted. Federal requirements are written broadly. Federal requirements are not limited to electric powered lawn mowers governed by the UL codes and internal combustion engine powered lawn mowers governed under the OPEI codes. However, for California to expand coverage under the current scheme, the Petitioner's identified consensus codes must be brought into title 8, either through incorporation by reference or through the development of parallel regulations (e.g. Federal OSHA's schema).

Section 3563(b)(3)

The Petitioner's requested change repeals requirements for powered lawnmowers manufactured after Sept. 2, 2010, to be affixed with a durable label stating the powered lawnmower is manufactured in accordance with the acceptable ANSI B71.1 or B71.4. The Petitioner argues that the requirement is not included in any editions of cited standards, has no safety benefit and imposes an undue burden unique to California.

Board staff disagrees with the proposed repeal. In the absence of such a label, the employer must seek other means of assurance that the lawnmower meets a particular consensus standard – especially if such adherence to a consensus standard is required.

STAFF RECOMMENDATION

Section 3563(a) and (b)(2)

Board staff recommends the Petitioner's request for updates to subsections 3563(a) and 3563(b)(2) be GRANTED to the extent that an advisory committee be convened to consider those updates.

Section 3563(b)(3)

Board staff recommends the Petitioner's request for repeal of subsection 3563(b)(3) be DENIED.