

California State Fire Marshal
AB 2322 (2021-2022) Workgroup
March 2024 Summary Report

BACKGROUND

Assembly Bill No. 2322

CHAPTER 284

An act to add Section 13108.5.1 to the Health and Safety Code, relating to fire safety.

[Approved by Governor -September 13, 2022. Filed with Secretary of State -September 13, 2022.]

AB 2322, Wood. California building standards: fire resistance: occupancy risk categories.

Existing law requires the State Fire Marshal to identify areas in the state as moderate, high, and very high fire hazard severity zones based on specified criteria.

Existing law, the California Building Standards Law, establishes the California Building Standards Commission within the Department of General Services. Existing law requires the commission to approve and adopt building standards and to codify those standards in the California Building Standards Code, which is required to be published once every 3 years.

This bill would require the State Fire Marshal, prior to the next triennial edition of the California Building Standards Code adopted after January 1, 2023, to research and develop, and would authorize the State Fire Marshal to propose to the California Building Standards Commission, mandatory building standards for fire resistance based on occupancy risk categories in very high, high, and moderate California fire severity zones in state responsibility areas, local responsibility areas, and in land designated as a Wildland Urban Interface Fire Area by cities and other local agencies under specified provisions of the California Building Standards Code. The bill would require those building standards to apply to nonresidential, critical infrastructure buildings and to include certain fire rating requirements for structures under specified risk categories. The bill also would require the California Building Standards Commission to consider for adoption of the building standards proposed by the State Fire Marshal pursuant to these provisions.

SUMMARY REPORT

The CA State Fire Marshal WUI Code Workgroup created a sub-group to research the implementation of AB 2322 (2021-2022) signed into law in 2023. The workgroup was Co-chaired by both Paul Armstrong who represented the wood industry and Mathew Sunup who represented the concrete industry. This bill specifies increases in fire-resistance rating for non-residential, critical infrastructure in the three California mapped wildland-urban interface (WUI) areas. The Health and Safety Code Section 13108.5.1 itself, while not specific to the exterior of all buildings and structures, intends to increase the resilience of these critical infrastructure projects from damage due to wildfires and aid in the recovery of the sheltered uses. Therefore, the sub-group determined that this is an exterior hazard, and the provisions should only apply to the exterior building elements of such buildings and structures and openings/penetrations.

The law also specifies that it applies to uses that are identified as being either essential or certainly very important to occupants, emergency personnel, and others who may be exposed to or responding to a wildfire event. The reference to Risk Categories III and IV from ASCE 7 assists in the determination of when such increased fire-resistance ratings apply as these two Risk Categories are in use for the determination of structural loading for such uses and engineers and building officials are familiar with its application. The sub-group decided that the implementation of the law should then apply to all identified uses in the California Building Code (CBC) version of the Risk Category table, Table 1604.5 and Table 1604.5A.

Note that Risk Category classifications III and IV apply to the following:

1. High occupant load facilities of various types. Examples of these are found in 2022 CBC Table 1604.5.
2. Fire, rescue, ambulance and police stations, and emergency vehicle garages.
3. Essential facilities and the utilities/communication systems that serve them.
4. Jails and other Group I-3 occupancies.
5. Primary and Secondary schools with an Occupant load of 250 or greater
6. Educational occupancies above the 12th grade with an occupant load greater than 500.
7. Hospitals and other emergency treatment facilities
8. Designated emergency shelters.
9. Power generating stations and other public utility facilities are required as emergency backup for Risk Category IV structures.
10. All public utility facilities are not included in Risk Category IV.
11. Water storage facilities and pump structures are required to maintain water pressure for fire suppression.
12. Designated emergency preparedness, communications, and operations centers for emergency response
13. Buildings and structures containing hazardous materials.

14. Aviation control towers, air traffic control centers, and emergency aircraft hangers.

The sub-group developed two draft code change proposals to Chapter 7A of the 2022 edition of the California Building Code since the wildland-urban interface (WUI) code criteria are located therein. Both draft proposals have been reviewed and discussed by a larger group of interested parties/officials with further research needed in the following areas:

1. 4-hour Fire-resistance-rated exterior walls which do not exist in the CBC currently.
2. Associated opening protectives in the noted 4-hour, 3-hour, and 2-hour Fire-resistance rated exterior walls.
3. Skylights and Smoke/Heat Vents in Roof Assemblies.

There is a significant increase in the cost of construction for the applicable uses included in AB 2322 (2021-2022). A cost study will need to be conducted for each of the identified Risk Category III and IV uses that can be in the Very High, High, and Moderate Fire Severity Zones. A few cost-increase examples have been produced but many more will be needed to cover all the uses and structures affected. It should be noted that this will also necessitate changes to the current method of protection for such buildings and structures and will increase in cost the necessary maintenance of the fire-resistance-rated protection features.

The sub-group is continuing to meet and will reach out to various affected groups for input.

The draft proposals from the subgroup are not being moved forward based on the above criteria and there was not a consensus vote from the larger working group. The cost of construction has been identified as the biggest concern. Other state agencies such as the Division of the State Architect (DSA), and the Office of Statewide Hospital Planning Department (OSHDP) will be affected by these regulations. Those agencies had representatives in the main working group, but it was determined that more research and actual cost analysis would need to be provided for all stakeholders to agree. The preliminary costs that have been provided would essentially exceed any future budgeted projects.

DRAFT PROPOSAL

701A.3 Application. ~~New Buildings and structures~~ located within any Fire Severity Zone or any Wildland-Urban Interface (WUI) area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

701A.3.1 New Buildings. ~~This shall include a~~ All new buildings with residential, commercial, educational, institutional or similar occupancy type use, which shall be referred to in this chapter as “applicable building(s)” (see definition in Section 702A), as well as new buildings and structures accessory to those applicable buildings (see Exceptions 1 and 4).

Exceptions: [to remain unchanged]

701A.3.1.1 Application date and where required. [to remain unchanged]

701A.3.2 Non-residential, critical infrastructure buildings and structures classified as Risk Category III and IV in ASCE 7. All exterior building elements, including roofs, walls, decks and other exterior elements, of non-residential, critical infrastructure classified as Risk Category III and IV in Table 1.5-1 of ASCE 7 shall be ignition-resistant and of four-hour, three-hour or two-hour fire-resistance rated construction in the very high, high or moderate fire severity zones respectively.

701A.3.2.1 Opening protectives. All doors, windows and other openings in the exterior building envelope shall be ignition-resistant and comply with Section 716. In addition, all doors shall be self-closing and all windows shall be either self-closing or fixed.

[More research on 4-hour exterior walls for openings; not found in Table 716.1(2) for opening protectives in exterior walls]

701A.3.2.2 Skylights. All skylights...[More research needed]

701A.3.2.3 Penetrations. All penetrations shall comply with Section 714.