

PART **2**

Building Planning

Chapters 3 through 6

- **Chapter 3** Occupancy Classification and Use
- **Chapter 4** Special Detailed Requirements Based on Occupancy and Use
- **Chapter 5** General Building Heights and Areas
- **Chapter 6** Types of Construction

The application of the *California Building Code* (CBC) to a structure is typically initiated through the provisions of Chapters 3, 5, and 6. Chapter 3 establishes one or more occupancy classifications based upon the anticipated uses of a building. The appropriate classifications are necessary to properly apply many of the code's non-structural provisions. The requirements of Chapter 6 deal with classification as to construction type, based on a building's materials of construction and the level of fire resistance provided by such materials. Limitations on a building's height and area, set forth in Chapter 5, are directly related to the occupancies it houses and its type of construction. Chapter 5 also provides the various methods available to address conditions in which multiple uses or occupancies occur within the same building. Chapter 4 contains special detailed requirements based on unique conditions or uses that are found in some buildings. ■

305.2

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Combustible Materials in Types I and II

CHANGE TYPE: Modification

CHANGE SUMMARY: Section 305.2 was amended to reflect the new definition of child-care and to state that Group E Child-Care is now for more than six children of 36 months, not 2 years as previously written.

2022 CODE TEXT: **305.2 Group E, day *child-care* facilities.** This group includes buildings and structures, or portions thereof occupied by more than *six* children ~~2 years~~ *36 months* of age *and older* who receive educational, supervision or personal care services for *fewer* than 24 hours per day.

Exception: [SFM] *A Day-care child-care facility not otherwise classified as ~~an~~ a Group R-3 occupancy, where occupants are not capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group I-4. A maximum of five infants and toddlers are allowed in a Group E child care.*

305.2.1 Within places of religious worship. Rooms and spaces within places of worship providing such day-care during religious functions shall be classified as part of the primary occupancy *where not licensed for ~~day~~ child-care purposes by the Department of Social Services.*

CHANGE SIGNIFICANCE: The changes in the addition of definitions for Child-Care, Day-Care and Toddler as well as this amendment are made because the Department of Social Services (DSS) has been transitioning from the term “Day-Care” to “Child-Care” for approximately 10 years. The profession of child-care has evolved into a more inclusive type of care that can include early learning and child development. The caring aspect of the facilities are more emphasized. The State Fire Marshal work group is including the definition to be more consistent between regulations.



An example of a Group E, child-care facility.

305.2

Group E, Child-Care Facilities

CCR 22 Section 101152 c (7) “Child-Care Center” or “Day-Care Center” (or “center”) means any child-care facility of any capacity, other than a family child-care home as defined in Section 102352f (1), in which less than 24-hour per day non-medical care and supervision are provided to children in a group setting. The term “Child-Care Center” supersedes the term “Day-Care Center” as used in previous regulations.

CHANGE TYPE: Modification

CHANGE SUMMARY: Energy storage systems and water/sewer treatment activities have been added to the listing of Group F-1 occupancies.

2022 CODE TEXT: 306.2 Moderate-hazard factory industrial, Group F-1. Factory industrial uses that are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

Energy storage systems (ESS) in dedicated use buildings

Water/sewer treatment facilities

(no changes to other listed uses)

CHANGE SIGNIFICANCE: Although the potential hazard and fire severity of the multiple uses in the Group F occupancy classification is quite varied, these uses share common elements. The occupants are adults who are awake and generally have enough familiarity with the premises to be able to exit the building with reasonable efficiency. Public occupancy is usually quite limited, and most occupants are aware of the potential hazards the use creates. The Group F-1 classification is applied for those factory and industrial uses that pose a moderate degree of hazard, essentially any such use that would not be considered as a low-hazard Group F-2 occupancy. The Group F-1 designation typically recognizes the presence of materials that pose a risk due to their combustibility or flammability potential. Due to these anticipated hazards, two additional types of uses addressing energy storage systems and water/sewer treatment activities have been added to the listing of Group F-1 occupancies.

306.2

Group F-1 Occupancy Classification



Photo courtesy of TerryJ

Group F-1 water treatment facility.

Electrical energy storage systems are regulated by Section 1207 of the *California Fire Code* (CFC). The purpose of these systems is to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing and similar capabilities. The CFC extensively regulates such facilities, including the obtaining of permits, submitting of construction documents and providing for a hazard mitigation analysis. A substantial number of safeguards have been established in the CFC to allow for recognition as a moderate-hazard condition in the determination of occupancy classification.

Where a single-occupancy building is used only for energy storage systems (ESSs), electrical energy generation and other electrical grid operations, the building is now to be considered as a Group F-1 occupancy. Although no other occupancies are permitted in the building, administrative and support areas that do not contain ESSs are allowed provided they do not exceed 10 percent of the building area on the story they are located. In the evaluation of the anticipated fuel load hazard, a moderate-hazard Group F-1 classification was deemed appropriate. For comparison purposes, electric generation plants have been historically classified as Group F-1 occupancies.

If an ESS is installed in a building having an occupancy other than Group F-1, the ESS is to be considered as part of that other occupancy. However, the provisions of CFC Section 1207 addressing an ESS will apply for the space the ESS occupies. The impact of the new Group F-1 classification may be significant for larger ESS installations in dedicated-use indoor locations, as classification as a Group H-2 occupancy will no longer be required.

Although nearly every community has a water/sewer treatment facility, there has been a lack of consistency in how such facilities should be viewed for occupancy classification purposes. Typically considered as a Group F industrial use, it has been unclear as to whether a moderate-hazard Group F-1 or a low-hazard Group F-2 classification is most appropriate. Such facilities are now specifically listed as one of the many Group F-1 occupancies due to the potential hazards that are typically present. There is a concern that some of the materials in use, especially in water treatment activities, are of a hazardous nature that would warrant a Group H classification should the maximum allowable quantities permitted in Section 307 be exceeded. Where the allowable quantities of hazardous materials do not rise to the level of a Group H classification, it was determined that a moderate hazard exists, resulting in an occupancy classification of Group F-1.

CHANGE TYPE: Modification

CHANGE SUMMARY: The distilling or brewing of alcohol beverages, as well as the storage of beer, distilled spirits and wine, are now considered as conditions where the quantities of the beverages are not limited in a non-Group H occupancy provided compliance with the CFC is achieved.

2022 CODE TEXT: 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

18. Distilling or brewing of beverages conforming to the requirements of the *California Fire Code*.

19. The storage of beer, distilled spirits and wines in barrels and casks conforming to the requirements of the *California Fire Code*.

(no changes to other listed uses)

CHANGE SIGNIFICANCE: High-hazard Group H occupancies are characterized by an unusually high degree of explosion, fire or health hazard as compared to typical commercial and industrial uses. There is a single common feature about all Group H occupancies: They are designated as Group H based on excessive quantities of hazardous materials in use and/or in storage. A variety of conditions have historically been established under which a Group H classification is not required despite that the quantities of materials exceed the amounts set forth in Table 307.1(1) or 307.1(2). The distilling or brewing of alcohol beverages, as well as the storage of beer, distilled spirits and wine, are now considered as conditions where the quantities of the beverages are not limited in a non-Group H occupancy provided compliance with the CFC is achieved.

307.1.1

Uses Not Classified as Group H



Photo courtesy of FocusEye

Whiskey distillery.

The addition of the two new uses regarding the manufacture and storage of alcoholic beverages is significant due to the elimination of any classification as a Group H occupancy. Distilling, brewing and the storage of alcohol beverages, regardless of alcohol content and the quantity of liquid, are not considered as Group H occupancies where in compliance with the CFC. This allowance in part takes into consideration the new automatic sprinkler requirements for the manufacture of distilled spirits, or the bulk storage of distilled spirits or wine. Where the alcoholic beverages being manufactured or stored exceed 16-percent alcohol content, regardless of the liquid quantity, a sprinkler system shall be provided throughout the fire area containing the Group F-1 or S-1 occupancy. See the discussion of new Sections 903.2.4.2 and 903.2.9.3. Due to the fire protection afforded by an automatic sprinkler system, along with other safeguards established in the CFC, the manufacture and storage of alcoholic beverages in any quantity is not ever to be considered as a Group H occupancy. Manufacturing activities will be classified as Group F-1 or Group F-2 based on the alcohol content, while the newly revised storage occupancy provisions will address the concerns associated with classification as Group S-1 or Group S-2.