

## **Supplement to the Special Provision for Building with an Occupied Floor Level 55' Above the Lowest Level of Fire Department Vehicle Access.**

This document will service to combine both the Fire Code (IFC) and the Building Code (IBC) supplemental documents. A new section 429 has been added in the IBC to address the items. Please refer to the individual Fire and Building code adoption documents for details.

**Automatic fire sprinklers.** An *automatic sprinkler system* shall be installed throughout buildings with an occupied floor that is located 55 feet or more above the lowest level of fire department vehicular access.

*Comment: Automatic fire sprinklers are provided for in the building and fire codes without a required modification to the existing code as currently required by Section 903.2.11.3.*

### **Emergency systems**

**\*Smoke detection.** Smoke detection shall be provided in accordance with Section 907.2.12.1 of the IFC

*Comment: Early warning system for occupant that activates the voice/alarm system; these are required in elevator machine, elevator lobbies, exhaust plenums, corridors and guest rooms. This requirement was added to IBC Section 429 as the proposed amendment to our local code adoption.*

**Fire alarm systems.** A *fire alarm system* shall be provided in accordance with Section 907.2. of the IFC

*Comment: A full addressable automatic and manual system to warn occupants currently addressed in the codes in IFC Section 907.2*

**Standpipe systems.** A building shall be provided with a standpipe system in accordance with Section 905.3 of the IFC

*Comment: A Class I system required in stairways at every story; two outlets are required at the roof; these required at 4 stories or 30' above or below the level of fire department access as required by IFC Section 905.3.*

**\*Emergency voice/alarm communication.** An *emergency voice/alarm communication system* shall be provided in accordance with Section 907.5.2.2 of the IFC.

*Comment: An alarm system that will automatically sound an alert tone followed by a pre-recorded voice instruction, added to IBC Section 429 and modified in the IFC.*

**Emergency radio coverage.** Emergency responder radio coverage shall be provided in accordance with Section 510 of the IFC.

*Comment: Section 510 of the IFC requires enhanced radio coverage for first responders*

**\*Fire Command Center.** A *fire command center* complying with Section 911 shall be provided in a location *approved* by the fire code official.

*Comment: A fire command center was added to the proposed Section 429 of the IBC as a local amendment.*

**\*Standby and Emergency Power.** A standby power system complying with Section 2702 and Section 3003 shall be provided for the standby power loads specified in this section. An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in this section In the IBC.

**\*Equipment Room.** If the stand-by power or emergency power system includes a generator set inside a building, the system shall be located in a separate room enclosed with 2- hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both per the IBC. System supervision with manual start and transfer features shall be provided at the *fire command center*.

**Exception:** In Group I-2, Condition 2, manual start and transfer feature for the critical branch of the emergency power are not required to be provided at the *fire command center*.

**\*Fuel line piping protection.** Fuel lines supplying a generator set inside a building shall be separated from areas of the building other than the room the generator is located in aby an approved method or assembler that has a fire-resistance rating or not less than 2 hours. Where the building is protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2., the required fire-resistance rating shall be reduced to 1 hour per the IBC.

**\*Standby Power.** A standby power system complying with Chapter 27 and Section 3003 shall be provided per the IBC.

The following are classified as standby power loads:

1. *Ventilation* and automatic fire detection equipment for *smoke proof enclosures*.
2. Elevators.
3. Where elevators are provided for *accessible means of egress*, fire service access, or occupant self-evacuation, the standby power system shall also comply with 1007.4, 3007, or 3008, as applicable.

**\*Emergency Power.** An emergency power system complying with Chapter 27 of the IBC shall be provided for emergency power loads as follows:

1. Exit signs and *means of egress* illumination required by Chapter 10;
2. Elevator car lighting;
3. *Emergency voice/alarm communication systems*;
4. Automatic fire detection systems;
5. Fire alarm systems;
6. Electrically powered fire pumps;
7. Power and lighting for the fire command center required by Section.

*Comment: On site backup electrical systems that can may consist of an on-site generator or system of batteries, or both. Standby power activates within 60 seconds; emergency activates power activities*

*within 10 seconds for specific life safety components. These components and the additional requirement when a generator and fuel line supply are in a building have been added to the proposed Section 429 of the IBC.*

**Means of Egress.** The *means of egress* shall comply with Chapter 10 and the following:

**\*Smokeproof enclosures.** Every required exit *stairway* service more than 55' above the lowest level of fire department access shall be a *smoke proof enclosure* in accordance with 909.20 and 1022.10 of the IBC.

*Comment: An exit stairway designed and constructed design and constructed so that the movement of smoke occurring in any part of the building into the enclosure is limited. This added feature was provided in Section 429 as proposed in the local amendment.*

**Exit stairway fire-resistance rating.** *Exit access stairway* enclosures shall have a *fire-resistance rating* of not less than 2 hours in buildings more than 4 stories.

*Comment: When building exceeds four stories, the interior exit stairway requires the enclosure to be 2 hours, already required by the code. This requirement is from 1009.3.1.2 of the IBC already in place in the model code.*

### **Construction Safety**

**Stairway required.** Where building construction exceeds 40' in height above the lowest level of above the of fire department access, a temporary or permanent stairway shall be provided. As construction progresses, such stairway shall be extended to within one floor of the highest point of construction have secured decking or flooring.

**Standpipes.** In buildings required to have standpipes by Section 905.2.1, not fewer than one standpipe shall be provided for use during construction. Such standpipe shall be shall be installed prior to construction prior to construction exceeding 40 feet in height above the lowest level of fire department vehicular access. Such standpipes shall be provided with fire department hose connection at locations adjacent to *stairways* complying with Section 3310.1. As construction progresses, such standpipes shall be extend to within one floor of the highest point of construction have secured decking or flooring per the IFC.

**Fire watch during combustible construction.** Where required by the *fire code official*, a fire watch shall be provided during nonworking hours for construction that exceeds 40 feet in height above the lowest adjacent grade per the IFC.

*Commentary: The code provides fire protection, ingress, egress, and fire prevention for buildings under construction when these structures are most vulnerable and the entirety of the protection is not provided. The features are required by the Building Code in Sections 3310.1, 3311.1, and 3314.1, respectively.*

\*- Added feature