

Central Control Station Guidelines

This document provides general guidelines for Central Control Station rooms when provided or required by any code regulation.

The location and accessibility of central control station rooms shall be approved by the Fire Marshal.

Central Control Station Room

▫ Location

- Central control station rooms shall be located on the ground floor with a door opening directly into the building lobby. The room may be accessible directly from the exterior or from the lobby.
- The central control station room shall not be used for any other purpose unless specifically approved by the Fire and Building Bureaus.

▫ Size

- The room shall be a minimum of 96 square feet with a minimum dimension of 8 feet

▫ Room Identification

- Access doors to central control station rooms shall be labeled "**central control station room**" with minimum 1 inch high lettering in a contrasting color.

▫ Separation

- Central control station rooms shall be separated from the remainder of the building by not less than a one-hour fire-resistive occupancy separation.
- There shall be no penetrations into or through a central control station room except for those specifically serving the room such as sprinkler piping, ductwork and conduit with electrical wiring.
- All mechanical duct penetrations serving the room shall be provided with combination smoke and fire dampers. All other penetrations serving the room shall be fire stopped with approved material.

Central Control Station Guidelines

- The Fire Marshal may require additional separation when rooms are approved in other locations.
- **Standby Lighting and Smoke Detection**

All circuits supplying lighting for the central control station shall be connected to standby power.

Smoke detection tied to the fire alarm system shall be provided for the room.

- **Equipment**

Central control station rooms shall contain the following:

1) **The voice and public address system panels.**

All voice evacuation and public address systems shall operate from the central control station room.

Manual control of evacuation tone signals, alert tone signals, and voice evacuation shall be provided on a selective and all-call basis.

Alert tones and voice instructions shall be provided to the following terminal areas:

- Elevators.
- Elevator lobbies.
- Corridors.
- Exit Stairways.
- Rooms and tenant spaces exceeding 1,000 square feet in area.
- Dwelling units in apartment houses.
- Hotel guest rooms or suites.
- Areas of rescue assistance

2) **The fire department communications panel.**

A two-way approved fire department communication system shall be provided for fire department use.

Central Control Station Guidelines

It shall operate between the central control station and elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms and at entries into enclosed stairways.

The telephone system shall be of the selective talk type with visible and continuous indication of each selectable circuit showing telephones off-hook.

A permanently mounted handset shall be located at the central control station, emergency and standby power rooms, and fire pump rooms.

A minimum of two portable handsets shall be stored in the central control station for use by the Fire Bureau.

3) **Fire-detection and alarm system annunciator panels.**

Control panels in the central control station shall be permanently identified as to function.

Alarm, supervisory and trouble signals shall be annunciated in the central control station by means of an audible and visual indicator.

For the purpose of annunciation, zoning shall be in accordance with the following:

- When the fire-protection signaling system serves more than one building, each building shall be considered as a separate zone.
- Each floor of a building shall be considered as a separate zone.
- Each floor of a building that is separated by area separation walls or horizontal exits shall be considered as a separate zone.
- Annunciation shall be further divided into zones where deemed necessary by the Fire Marshal.
- Identification of the type of alarm, initiation devices such as manual, automatic, sprinkler water flow, sprinkler supervisory switches, etc. shall be separately indicated on electrically supervised initiating circuits to the main fire alarm control unit.

Annunciator panels shall be graphic to clearly indicate the layout of the building. Vertical and horizontal graphic arrangements may be necessary. The graphic panel shall be oriented to the building and include a compass point.

Central Control Station Guidelines

The panel shall include the following items:

- Fire alarms zoned annunciation.
- Lamp test switch
- Power on and trouble indicators
- Fire alarm power source.
- Smoke control and pressurization status and controls
- Fire pump status.
- Emergency generator status.
- Special extinguishing systems.

The fire alarm annunciator panel may be combined with the HVAC status/control panel.

Major building features and functions shall be indicated on the graphic panel. If the panel has colored graphics, they shall be as follows:

- WHITE – General building layout, black lines on white background.
- YELLOW – Exhaust air systems.
- ORANGE – Supply air systems.
- GREEN – pressurization air systems.

Indicator lights for fire alarms shall be as follows:

- GREEN – power on.
- AMBER – trouble or supervisory signal.
- RED – alarm condition.

4) **Annunciator visually indicating the location of the elevators and whether they are operational.**

- Indicate elevators on emergency power.
- Indicate position of elevator car.

Central Control Station Guidelines

- Identify each elevator cab numerically. Post cab number in elevator at the permanent handset.

5) Status indicators and controls for air-handling systems.

A firefighter's control panel shall be provided for manual control or override of automatic control for mechanical smoke-control systems. The control panel shall graphically depict the building arrangement and smoke-control zones served by the system.

Lamps and appropriate legends shall indicate the status of each smoke-control zone.

Fans, major ducts and dampers within the building that are portions of the smoke-control system shall be shown on the control panel with a clear indication of the direction of airflow.

Status indicators shall be provided for all smoke-control equipment by pilot-type indicators as follows:

- GREEN – fans, dampers, and other operating equipment in their normal status.
- RED – fans, dampers, and other operating equipment in their off or closed status.
- YELLOW – fans, dampers, and other operating equipment in a fault status.

Provisions for testing the pilot lamp on the firefighters control panel by means of one or more lamp test momentary push buttons or other self-restoring means shall be included.

The control panel shall provide control capability over the complete smoke-control system within the building as follows:

- ON-AUTO-OFF control over each individual piece of operating smoke-control equipment that can also be controlled from other sources within the building. This includes stairway pressurization fans, smoke exhaust fans, elevator pressurization fans.
- OPEN-AUTO-CLOSE control over all individual dampers relating to smoke control and that are also controlled from other sources within the building.

Central Control Station Guidelines

- ON-OFF or OPEN-CLOSE control over all smoke-control and other critical equipment associated with a fire or smoke emergency and that can only be controlled from the firefighters control panel.
- ON-OFF, OPEN-CLOSE control actions shall have the highest priority of any control point within the building.

6) **Controls for unlocking all stairway doors simultaneously.**

All stairway doors that are locked from the stairway side shall have the capability of being unlocked simultaneously without unlatching upon a signal from the central control station.

7) **Sprinkler valve and water-flow detector display panels.**

Status indicators.

8) **Emergency and standby power status indicators.**

Operating status indicator ON-OFF.

9) **A telephone for fire department use with controlled access to the public telephone system.**

10) **Fire pump status indicators.**

Operating status indicator ON-OFF.

11) **Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire-protection systems, firefighting equipment and fire department access.**

Building floor plans shall be permanently mounted on an interior wall within the central control station. One drawing may be used for all typical floor levels.

Plans shall include the following:

- Stairways.
- Areas of rescue assistance.
- Shafts.
- Corridors.

Central Control Station Guidelines

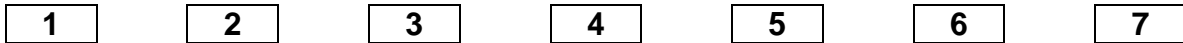
- Elevators.
- Emergency generator and fuel locations.
- Fire pump.
- Smoke control supply and exhaust ducts.
- Mechanical rooms, gas, water, electrical, fire sprinklers.
- Detectors.

12) Work table.

A worktable or shelf shall be provided with a minimum dimension of 5ft. in length and 16 inches in width. The worktable or shelf shall be located 3ft. from floor level.

▫ Equipment Layout

Equipment installed at the monitoring position in the central control station room shall be located left to right according to the following diagram:



1 = Environmental HVAC

2 = Graphic HVAC

3 = Fire Alarm Control Panel / Sprinkler Valve Water-Flow Panel

4 = Public Address System / Firefighter 2-Way Communication System

5 = Fire Pump Panel

6 = Generator Panel / Other Emergency Power

7 = Elevator Status Panel