

HIGH-RISE (Office) BUILDING FLSD INITIAL DECISION MATRIX

FCC MANUAL 2-WAY VOICE COMMUNICATION SYSTEM

Fire and Life Safety Directors Association of Greater New York

EAP EVACUATION MODES

2021

EAP INCIDENTS	Course of Actions (2)		Course of Actions (3)									
	INSIDE BUILDING	OUTSIDE BUILDING	Make An 'All Call' Voice Announcement	Elevator Banks Recalled (3)	Re-Entry Doors Unlocked	Power Shutdown	HVAC Shutdown	Close Exterior Louvers	Sound Fire Alarm	Lock Down Building		
Active Shooter (1)	X		Enact A-B-C Protocols	Y	Y	N	N	N	N	N	N	
Active Shooter		X	Shelter-in-Place	Y	Y	N	N	N	N	N	Y	
Biological Event (CBRE)	X		Evacuation	Y	Y	N	N	Y	N	N	N	
Biological Event		X	Shelter-in-Place	Y	Y	N	N	Y	Y	N	Y	
Chemical Event (CBRE)	X		Evacuation	Y	Y	N	N	Y	N	N	N	
Chemical Event		X	Shelter-in-Place	Y	Y	N	N	Y	Y	N	Y	
Carbon Monoxide Event (4)	X		Evacuation Thresholds	Y (4)	Y	Y	N	Y	N	N	N	
Carbon Monoxide Event		X	Shelter-in-Place	Y	N	N	N	N	Y	N	N	
Radiological Event (CBRE)	X		In-Building Relocation	Y	Y	N	N	Y	N	N	N	
Radiological Event		X	Shelter-in-Place	Y	Y	N	N	Y	Y	N	Y	
Explosion Event (CBRE)	X		Evacuation	Y	Y	N	Y	Y	N	Y	N	
Explosion Event		X	Shelter-in-Place	Y	Y	N	Y	Y	Y	N	Y	
Civil Disturbance		X	Shelter-in-Place	Y	Y	N	N	N	N	N	Y	
Power Outage		X	Shelter-in-Place	Y	Y	N	Y	Y	N	N	N	
Suspicious Package	X		Evacuation	Y	Y	N	N	Y	N	N	N	
Suspicious Package		X	Shelter-in-Place	Y	Y	N	N	Y	N	N	Y	
Transportation Incident		X	Shelter-in-Place	Y	Y	N	N	N	N	N	N	
Weather Related Event		X	Shelter-in-Place	Y	Y	N	N	N	N	N	N	

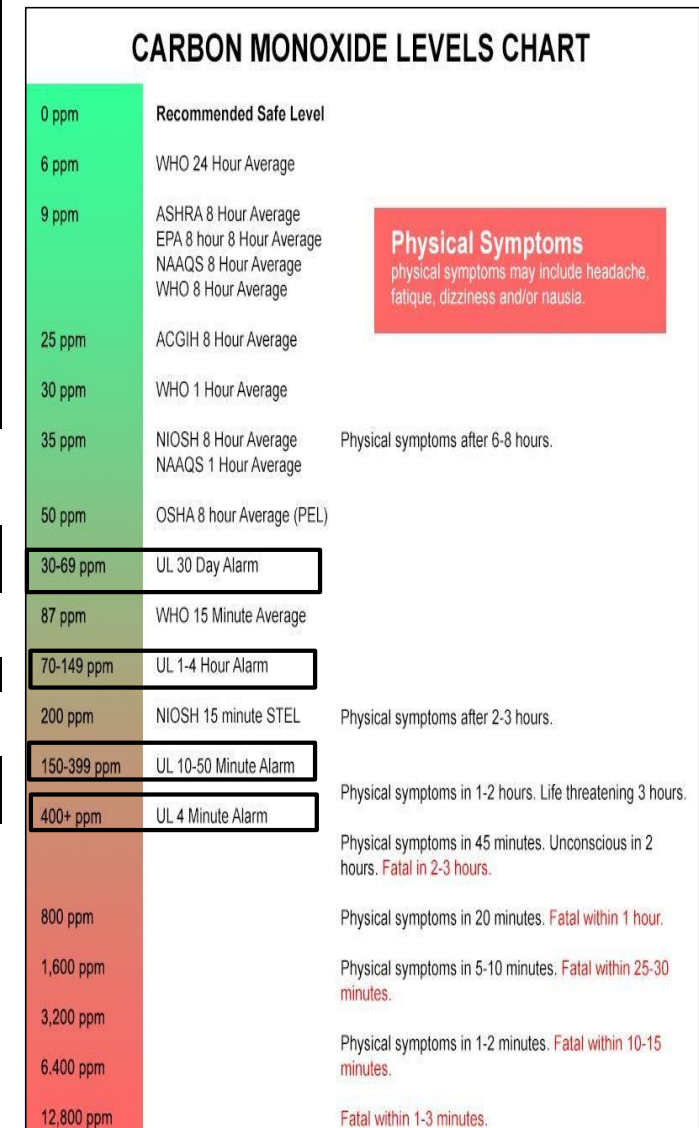


NOTES:

- (1)** Make an 'All Call' (Entire Building) Voice Announcement if safe to do so, CALL 911 to report the incident
- (2)** Elevator Banks Recall / Manually recall elevator banks when programmed for an Alternate Floor selection with hoistway doors kept in a closed position
- (3)** If the incident progresses beyond the Initial Evacuation Action other EAP evacuation modes may be put into action as needed for a Total (Full), Partial, In-Building Relocation evacuation or a Shelter-in-Place mode.
- (4) CARBON MONOXIDE [CO] Activation Initial Steps**
 - 4A. Make the initial announcement on the CO activation floor at the source (affected area) and shutdown the source (except generator) with the local sounder activation.
 - 4B. Make **"All Call"** to rest of building informing them the condition of an evacuation affecting other floor areas (activation floor, floors above & below) and have them Shelter-in-Place
 - 4C. **CALL 911** to report the incident.
 - 4D. Inform the building engineers of the need to either shutdown HVAC system, purge or supply fresh air to the affected floor area
 - 4E. Follow-up with the Building Engineer (HVAC) to see if the building BMS system has CO monitoring capabilities as a potential pre-alarm notification and to monitor other floors during the event.
 - 4F. Have Brigade Personnel respond within the stairwells to assess occupant conditions from the relocation floors

UL/CO LEVELS (Refer to CO Levels Chart)

30-69ppm	UL 30 Day Alarm	
70-149ppm	UL 1-4 hour Alarm	
150-399ppm	UL 10-50 Minute Alarm	Physical symptoms 1-2 hours Life Threatening 3 Hours
400 + ppm	UL 4 Minute Alarm	Physical symptoms in 45 minutes. Unconscious in 2 hours Fatal in 2 to 3 Hours



Source Floor and the
Floor Above/Below

5/25/2021

As Brookfield buildings begin to bring their new CO Detectors online – the building's response will vary depending on how the sequence of operations are defined in the fire alarm matrix. We've basically broken it down into two categories:

one amber strobe activation and the associated sounder base for each CO Detector activated (an audible & visual alarm for that area only).

Call 911

Brigade Investigation

Engineers to shut down source to any malfunctioning equipment from alternative shut off valve location, if applicable. (Kitchen/Parking garages are exempt) by Code, must shut down automatically

Engineers to purge the CO activation room and introduce fresh air when directed by FDNY

Note: With only the source room activated and equipment automatically shut down, I don't intend to evacuate more than the affected area (the room) since nobody but the FLSD and Engineers will be aware of an activation.

2. Source Floor Only - one amber strobe activation and the associated sounder base for each CO Detector activated (*an audible & visual alarm for that area only*). Source Room and at least one CO detector outside the source room

Call 911

Lower floor CO Activation - Announcement to floor in alarm to evacuate to their outside assembly area

Upper floor CO Activation -Announcement to floor in alarm to relocate to a floor that is at least three (3) floors below their floor

Brigade Investigation – For a lower floor CO activation (occupants evacuate to street) brigade to meet with FDNY at the FCC

Brigade Investigation – For an upper floor CO activation brigade to meet the occupants on the relocation floor to assess occupants' medical condition (call for EMS if necessary)

Engineers to shut down source to any malfunctioning equipment from alternative shut off valve location, if applicable. (Kitchen/Parking garages are exempt)

Engineers to purge the CO activation floor and introduce fresh air when directed by FDNY

FLSD to release the Fail-Safe system for re-entry floors

FLSD to manually recall elevator bank serving the CO activation floor

"All Call" announcement informing other tenants to remain on their floor while FD investigates the CO alarm

Source Floor + Floor Above/Below – included in the above scenario is the activation of just the amber strobe lights (visual alarm only) on the floor above and below the source floor

Call 911

Lower floor CO Activation - Announcements to all three (3) floors in alarm to evacuate to their outside assembly area

Upper floor CO Activation -Announcement to all three (3) floors in alarm to relocate to a floor that is at least three (3) floors below their floor

Brigade Investigation – For a lower floor CO activation (occupants evacuate to street) brigade to meet with FDNY at the FCC

Brigade Investigation – For an upper floor CO activation brigade to meet the occupants on the three (3) relocation floors to assess occupants' medical condition (call for EMS if necessary)

Engineers to shut down source to malfunctioning equipment, if applicable (Kitchen/Parking garages are exempt)

Engineers to purge the CO activation floor and introduce fresh air when directed by FDNY

FLSD to release the Fail Safe system for re-entry floors

FLSD to manually recall elevator bank serving the CO activation floors

"All Call" announcement informing other tenants to remain on their floor while FD investigates the CO alarm

NOTES: FDNY/F:SD Conf Call 5/04/2021

LL 191 (BC 908.7.3) requires CO detectors in buildings with fire alarm systems (Group B occ)

Compliance July 1, 2021

Activation of a detector at the source equipment

Shuts down the equipment

Sounds an alarm in the equipment room

Activates an amber strobe in the equipment room

Sends a Supervisory alarm to the Fire Command Station

FCS transmits a CO Alarm to Central Station (relayed to FDNY)

Only detector sensing CO activates. They DO NOT all sound an alarm if one activates.

Locations requiring detectors

At the source of any equipment generating CO (except generators and commercial kitchens)

Corridors outside the room where the source equipment is located

Floor above and floor below the source equipment

1 detector per 10,000 sq. ft.

Additional detectors is over 10,000 sq. ft. but not more than 100 feet apart

Activation Levels (UL approved)

30-60 ppm activates when 30 days of sustained concentration of CO

70-140 ppm

150-399 ppm

400 > ppm

FDNY Response (as per DC Kevin Murphy)

Normal Class E alarm assignment (can be full first alarm or modified single unit)

FLSD to communicate with FDNY unit that there was an activation of a CO detector

Jack Murphy recommended that detectors should indicate ppm level and that the Central Station should call the FLSD

Code 10-38 will be used for CO Alarms

Code 1- defective detector

Code 2- CO Incident 1-9 ppm

Code 3- CO Emergency 10> ppm

Code 4- No CO detector activation

Evacuate the “affected area” for an emergency (NG comment- does this mean the room where the detector is and only that room? If corridor hasn’t activated, is it affected?)