



RFDS 16.00: CLEAN AGENT FIRE EXTINGUISHING SYSTEMS

16.1 GENERAL

- 16.1.1** Clean Agent Fire Extinguishing Systems (C.A.F.E.) may utilize one of many listed extinguishing agents including FM-200 and Inergen. C.A.F.E. systems may be installed as supplementary extinguishing systems. The installation of a C.A.F.E. system does not replace any fire protection system required in the room or space.
- 16.1.2** C.A.F.E. systems shall be designed, installed, tested and maintained in accordance with the requirements of NFPA 2001 "Standard on Clean Agent Fire Extinguishing Systems" and the manufacturer's design, installation, operation and maintenance manual.

16.2 PLANS AND PERMITS

- 16.2.1** No system components shall be installed until a valid permit has been obtained from the Redmond Fire Department and an approved set of plans and permit are on site.
- 16.2.2** Submit three copies of plans, specifications, supporting documentation and a completed permit application form to the Redmond Fire Department, City Hall Development Services Center 15670 NE 85th Street, 2nd floor. One set will be kept by the fire department.
- 16.2.2.1** Submittal packages shall include all information required by NFPA 2001 and this standard.

16.3 RELEASE PANELS

- 16.3.1** A C.A.F.E. system will generally utilize a dedicated releasing control panel to supervise the detection and releasing function of the system.
- 16.3.2** The release panel shall provide the following signals to the building fire alarm control panel (F.A.C.P.). The building F.A.C.P. must transmit the signals to the Central Station per the current Redmond Fire Alarm Standard.
- 16.3.2.1** General alarm (fire detectors) by room, area, floor, zone or point specific for addressable systems.
- 16.3.2.2** General release panel trouble.
- 16.3.3** The release panel shall be located inside the protected space or within ten feet of the main entry door to the space. The panel shall be visible and accessible at all times. Exception: Systems utilizing the building F.A.C.P. if listed for use as a release panel.



- 16.3.4** A suitable sign shall be located adjacent to the F.A.C.P. which identifies the location of the release panel.
- 16.3.5** If the release panel protects multiple rooms, a sign identifying the location of the release panel shall be provided within each room.
- 16.3.6** Interlock relays controlled by the release panel shall be of a “fail safe” design.
 - 16.3.6.1** Dampers shall be normally energized open-fail closed.
 - 16.3.6.2** HVAC equipment control circuits, normally energized.
 - 16.3.6.3** Door holders, normally energized.

16.4 FIRE ALARM INTEGRATION

- 16.4.1** The building F.A.C.P. will provide operational signals for the building horn/strobes. Placement shall be per NFPA 72 and current WAC.
 - 16.4.1.1** A minimum of one 75 cd strobe and horn shall be located within the protected space.
 - 16.4.1.2** The C.A.F.E. horn/strobes shall be activated by an alarm signal from the releasing panel.
- 16.4.2** A first stage alarm signal shall initiate the following actions:
 - 16.4.2.1** Release panel sends a general alarm signal to F.A.C.P.
 - 16.4.2.1.1** F.A.C.P. operates horn/strobes throughout the facility, including inside the CAFÉ protected space.
 - 16.4.2.2** C.A.F.E. release panel operates red strobe(s).
 - 16.4.2.2.1** A minimum of one device, wall mounted at 80 inches AFF located adjacent to exit door.
 - 16.4.2.2.2** Multiple exits require one strobe per exit.
 - 16.4.2.2.3** Strobes shall be appropriately labeled with red/white lettered signs; FM-200 system, Inergen system, etc.
 - 16.4.2.2.4** Strobe is not silence-able.
- 16.4.3** A signal to the release panel from a second smoke detector (second stage) shall initiate the following:
 - 16.4.3.1** Release panel operates 8-inch fire alarm bell located inside of the C.A.F.E. protected space to provide an audible alert to personnel of a pending agent release.
 - 16.4.3.1.1** An approved sign shall be mounted adjacent to the bell which reads: When bell sounds FM-200 (Inergen, etc.) will discharge in 30 seconds.
 - 16.4.3.2** Red strobe continues to flash.
 - 16.4.3.3** HVAC units shut down and dampers close.



16.5 SYSTEM DISCHARGE

- 16.5.1** Upon discharge of the system the release panel will operate a red strobe located at each entrance to the C.A.F.E. protected space.
- 16.5.1.1** Strobes shall be provided with appropriate signage identifying each as a warning device for the C.A.F.E. system.
- 16.5.2** Caution signage shall be posted at the entrance to warn personnel not to enter the space when the strobe is operating. "Caution: Room protected by FM-200 (Inergen, etc.) extinguishing system. Do not enter without authorization during or after discharge"