South Adams County Fire Department

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Clean Agent Systems

Submittal Process: The following items are required for a Clean Agent System Plan Review submittal. Failure to provide the following may require a Review Denial or Resubmittal. All submittals shall have a South Adams County Fire Department Plan Review Application attached.

Drawings Requirements:

- Electronic files in .pdf format. Submitted in an unlocked and secured state for plan review.
- NICET IV or PE stamped.
- Name of owner and occupant
- Indicate the approximate scale, northern direction and date the drawing was completed.
- Location, including street address and suite number (if applicable).
- Location and construction of protected enclosure walls and partitions.
- Enclosure Cross-section including location and construction of building floor/ceiling assemblies above and below any raised access floors and/or suspended ceilings.
- Name of Extinguishing Agent to be used.
- Design of fire extinguishing or inerting concertation.
- Description of occupancies and hazards being protected, designating whether or not the enclosure is normally occupied.
- Description of exposures surrounding the enclosure.
- Description of agent storage containers used including internal volume and storage pressure.
- Description of nozzle(s) used including size orifice port configuration, and equivalent orifice area.
- Description of pipe and fittings used including material specifications, grade and pressure rating.
- Description of wire or cable used including the required method of making wire terminations.
- Description of the method of detector mounting.
- Manufacturers' data sheets indicating model numbers and listing information for equipment, devices and materials.
- Plan view of protected area showing the following:
    - Enclosure partitions

    - Agent distribution system including agent storage containers, piping and nozzles.
    - Type of pipe hangars and rigid pipe supports.
    - Detection, alarm, and control system including all devices and schematic of wiring interconnection between them.
    - End of line device locations.
    - Location of controlled devices such as dampers and shutters
    - Location of instructional signage.
- Isometric view of agent distribution system showing the following:
    - Length and diameter of each pipe segment
    - Node reference numbers relating to the flow calculations
    - Fittings and orientation of tees and nozzles
        - Including size
        - Orifice port configuration
        - Flow rate
        - Equivalent orifice area
- Scale drawing showing the layout of the annunciator panel graphics
- Details of each unique rigid pipe support configuration showing method of securement to the pipe and to the building structure.
- Details of the method of container securement showing method of the container to the building structure.
- System sequence of operation and complete, detailed description of events, including functions of abort and maintenance switches, delay timers and emergency power shutdown.
- Point to point wiring schematic diagrams showing all circuit connections to external or add-on relays.
- Complete calculations to determine enclosure volume, quantity of clean agent, and size of backup batteries and method used to determine number and location of audible and visual indication devices, and number and location of detectors.