

Roseburg Fire Department
Fire Prevention Bureau
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Clean Agent System Plan Review Submittal Checklist

Revised – (10/18/07)

Working plans and calculations shall be submitted for approval to the authority having jurisdiction before system installation or remodeling begins. These documents shall be prepared only by persons fully experienced and qualified in the design of total flooding clean agent fire extinguishing systems. Deviation from these documents shall require permission of the authority having jurisdiction.

Working plans shall be drawn to an indicated scale and shall show the following items that pertain to the design of the system:

- Name of owner and occupant.
- Location, including street address.
- Point of compass and symbol legend.
- Location and construction of protected enclosure walls and partitions.
- Location of fire walls.
- Enclosure cross section, full height or schematic diagram, including location and construction of building floor/ceiling assemblies above and below, raised access floor and suspended ceiling.
- Agent being used.
- Design extinguishing or inerting concentration.
- Description of occupancies and hazards being protected, designating whether or not the enclosure is normally occupied.
- Description of exposures surrounding the enclosure.
- Description of the agent storage containers used including internal volume, storage pressure, and nominal capacity expressed in units of agent mass or volume at standard conditions of temperature and 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 classification, gauge [American Wire Gauge (AWG)], shielding, number of strands in conductor, conductor material, and color coding schedule. Segregation requirements of various system conductors shall be clearly indicated. The required method of making wire terminations shall be detailed.
- Description of the method of detector mounting.
- Equipment schedule or bill of materials for each piece of equipment or device showing device name, manufacturer, model or part number, quantity, and description.
- Plan view of protected area showing enclosure partitions (full and partial height); agent distribution system including agent storage containers, piping, and nozzles; type of pipe hangers 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; and location of instructional signage.
- Isometric view of agent distribution system showing the length and diameter of each pipe segment; node reference numbers relating to the flow calculations; fittings including reducers and strainers; and orientation of tees, nozzles including size, orifice port configuration, flow rate, and equivalent orifice area.
- Scale drawing showing the layout of the annunciator panel graphics if required by the authority having jurisdiction.
- 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 securement to the container and to the building structure.
- Complete step-by-step description of the system sequence of operations, including functioning of abort and maintenance switches, delay timers, and emergency power shutdown.
- Point-to-point wiring schematic diagrams showing all circuit connections to the system control panel and graphic annunciator panel.

- 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 indicating devices, and number and location of detectors.

- Details of any special features.

Approved: YES / NO