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U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Fire Pump Room Features

Learning objective: *The student shall be able to identify features required in a fire pump room.*

NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*, requires that the fire pump, driver, controller, water supply, and power supply shall be protected against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism, and other adverse conditions.

Some of the pump room or pump house features necessary to protect the pump assembly and satisfy NFPA 20:

- Fire pump buildings or rooms enclosing diesel engine pump drivers and day tanks must be protected with an automatic sprinkler system. The sprinkler system must meet the design and installation requirements of NFPA 13, *Standard for the Installation of Fire Sprinkler Systems*.
- An approved or listed source of heat must be provided for maintaining the temperature of a pump room or pump house, where required, above 40 °F (5 °C).
- Artificial and emergency lighting shall be provided in a pump room or pump house. (A long-standing provision to use flashlights for emergency lighting has been removed from NFPA 20.)
- Emergency lights may not be connected to any battery used for starting diesel engines that drive fire pumps.
- The pump room or pump house must be ventilated adequately.
- Floors must be pitched or sloped for adequate drainage of escaping water away from critical equipment such as the pump, driver, controller, or automatic transfer switch.
- The pump room or pump house must a floor drain that will discharge to a frost-free location.

An important part of the standard is that "*Location and access to the fire pump room shall be pre-planned with the fire department.*" Fire officers and Incident Commanders (ICs) should know at the very least where stationary fire pumps are located, how they operate, how to start and stop them, what to do in case the pump fails, and whom to call for help in an emergency.

For additional information, refer to NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*.