

## STATIONARY FIRE PUMPS

BY BEN PEETZ

### Drill #1 – Stationary Fire Pump Systems:

Fire pump systems are often found in properties located in areas that are remote from an adequate municipal water supply or where an increased water supply is needed for the fire protection systems. Booster fire pumps may be used for large life-safety systems, especially those in facilities like hospitals or nursing homes, and they are typically needed for high-density sprinkler systems. This would include high-hazard occupancies or where Early-Suppression, Fast-Response (ESFR) systems may be used, such as warehouses with high-pile or rack storage. Pump systems may also provide water to a fire hydrant loop for use by responding fire departments.

Fire pumps may provide the sole source of pressurized water supply from a static source, such as a tank, well, pond, or other storage. A secondary pump may also be used to provide additional supply to the primary pump.

Booster pumps “boost” a pressurized source that has adequate volume, but inadequate pressure. In these cases, a pump failure would not necessarily result in total failure of the fire protection system, though the system would not operate at the intended design until the pressure could be boosted.

Just like apparatus pumps, a fire pump only works where a water source of adequate volume is available. Pumps cannot create volume where there is not enough water, but they can add pressure to a suitable firefighting supply.

Not all fire pump rooms are prominently marked. Pre-plan when you can, and learn to anticipate where fire pumps may be in place. Understand what pump houses look like when located on a property, and that they may be adjacent to a tank, pond, or other water source. For pumps within large buildings, the presence of a test header or “cow bag” is a sure sign of a fire pump system.

NFPA 20 is the standard that provides guidance for the installation of stationary fire pump systems.

This is drill #1 of 5 from Ben Peetz.

