

Investigating Fires in Sprinklered Buildings

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Greg Jakubowski, P.E., CSP

Captain, Lingohocken Fire Co. – Bucks Co, PA & Penna. State Fire Instructor

Investigate Equipment

- Obtain information on the design and type of system (flow requirements)
- Make/model/year/detailed information on the sprinkler heads involved
- Make/model/year/detailed information on the valves involved
- Make/model/year/detailed information on the fire pump (if provided)
- Check piping for potential obstructions where necessary
- Take photos!!!

Investigate Sprinkler Water Supply

- Obtain piping drawings for the fire area(s)
- Determine the valves that supply the fire area(s)
- Check the position of these valve(s) at the time of the fire
 - open/closed?
 - locked/unlocked?
- Confirm sprinkler lines not frozen.

Investigate Sprinkler Water Supply

- If fire pump provided
 - Check for proper operation
 - Check battery (diesel)
 - Check heat in pump room
- If provided, confirm fire water tank had water when fire occurred, and was not frozen.

Investigate Sprinkler Water Supply

- Confirm water supply flow/pressure at the time of the fire
 - Flow - Pressure -
 - If possible, do flow test at site
- Conduct flow test (2" drain) downstream of sprinkler valve(s) to verify no impairments

Investigate Fire Dept. Operations w/System

- Did the fire department connect to the siamese?
- Was it the sprinkler or standpipe (or combined) siamese?
- If so, did they pump the siamese and at what pressure?

Investigate Types of Systems

- Obtain copies of all alarm printouts
- Dry Systems
 - Confirm air supply operating properly
 - Confirm valve setup/arrangement
- Deluge/Preaction Systems
 - Confirm air supply operating properly
 - Confirm alarm/activation system operations
 - Confirm valve setup/arrangement
 - Sprinklers properly aligned & clear?

Investigate System Maintenance

- Obtain copies of maintenance/testing records
 - Sprinklers
 - Detectors for Preaction/Deluge Systems
 - Fire pumps
- Verify valves tested
- Obtain information on trip tests

Interaction of Sprinkler System with Occupancy

- Determine fuel in the area where the system operated
 - Fuel type
 - Fuel load
 - Fuel configuration
 - Unusual Hazards
- Confirm system was designed for fuel type, loading and configuration
- Determine how many "systems" operated?