



Technical Guidance Document

Dry Systems/Low Point Drainage

Proper drainage is crucial for dry sprinkler systems to prevent freeze-ups and water damage during winter, especially in unheated areas where these systems are commonly installed. These systems depend on low point drains to prevent water accumulation and subsequent freezing. Unmarked or poorly identified drains may not be adequately drained during system testing or activation. The remaining water in the pipes can freeze and burst, leading to significant water damage. Properly labeling and maintaining low point drains is essential to reduce this risk.

1. Professional Inspections and Service

For facilities that do not have the information and capacity to inspect their own drainage systems, it is important to seek professional help.

- Have a qualified sprinkler installation or service company inspect your system and label all drains.
- Schedule annual inspections of your dry sprinkler system with a licensed professional to ensure that all drainage points are functional and up to code.
- Ensure the sprinkler service company tests and maintains all components, including low point drains and heat tracing, to proactively address any weak spots in the system.

2. Inspect and Label Drains

For facilities that have the information and capacity to inspect their own drainage systems, it is imperative that it is done thoroughly.

- Review blueprints or system diagrams to locate all drains in unheated areas, and mark them on a floorplan for maintenance and emergencies.
- Mark all low point and auxiliary drains with weatherproof metal or rigid plastic signs, as required by NFPA 13 and NFPA 25.
- Use signs to indicate the location of drains, antifreeze systems, and heat traces, where applicable.
- Ensure labels and signs are visible and easily readable, especially in areas that may be difficult to access during an emergency.

3. Drainage Maintenance

- After any system testing or activation, ensure all low point drains are properly drained to prevent water from freezing.
- Perform a final drainage inspection before the facility closes for long weekends or holidays, ensuring systems are fully drained ahead of extended downtime.

Disclaimer: The material contained herein is intended for general informational purposes only. It is not intended as legal advice and should not be construed as such. Any inquiries concerning Massachusetts law should be directed to a city solicitor, town counsel or other licensed attorney.