

Freeze Prevention Best Management Practices

This guide has been developed to prevent costly repairs as a result of freeze ups. All facilities are unique, and this is not an exhaustive list. Custodian Engineers and their staffs are the first line of defense in freeze up prevention.

Windows

Where mechanical ventilation is provided, minimize the opening of windows.

Vestibules

Ensure all exit doors are closed and locked and all heating equipment is functional. Install or replace damaged weather stripping on all exterior doors. Test all curtain heaters for proper operation.

Heating Plant Operation

Ensure adequate heat is supplied to the building to maintain optimal temperatures and to prevent freeze up conditions.

Roof and Gutters

Regularly inspect, clean and remove debris, clear drains, scuppers and down spouts.

Water Main Shutoff Valves

Inspect and exercise prior to freezing weather conditions.

Wet Pipe Sprinkler Systems

Inspect wet pipe sprinkler system in areas exposed to freezing. Regularly test nearby heating equipment and install space heaters if needed.

Mechanical Spaces (Including RTU and Penthouses)

Inspect and test all space heaters in mechanical spaces and areas that are susceptible to freezing. Check RTUs and Penthouse mechanical spaces heaters.

Hydronic Systems

Check freeze protection in hydronic systems. Drain systems where water is the only heat transfer fluid for cooling loops. Open vents on coils and blow out coils with compressed air. Where hydronic heating loops are not protected with Glycol, operate pumps to circulate water during low temperature conditions to prevent freeze ups

Dual Temperature Systems

Check freeze protection level on cooling loops. Drain systems where water is the only heat transfer fluid for cooling loops and blow out with Compress air. Open all vents.

Heat Tracers

Regularly inspect, test, and repair all heat tracers on piping where applicable including TCUs. Replace damaged insulation and insulate any exposed piping.

Cooling Towers

Winterize cooling towers by draining tower, supply and return lines.

Steam Boiler Systems

Regularly inspect all components to ensure proper working order. Perform routine maintenance including but not limited to test temperature sensing devices for actuation of control valves and dampers; check steam traps, control valves and actuators, fresh air and bypass dampers, linkages and temperature controllers; blowing down drip legs; clean strainers.

Ventilation Systems

Test and inspect dampers, and linkages, as well as calibrate freeze stats.

Temporary Boilers

Ensure all feed water, condensate return lines and fuel lines are insulated.