

## Inspection, Testing, and Maintenance Schedule for Fire Protection Equipment

Fire protection equipment plays a significant role in mitigating fire risk from life safety and property preservation perspectives. To ensure fire protection equipment will operate when needed, it is essential that this equipment be inspected, tested, and maintained at regular intervals in accordance with requirements published by the National Fire Protection Association (NFPA). The following table outlines inspection, testing, and maintenance (ITM) requirements for commonly installed fire protection equipment.

Please note the purpose of this guide is to provide a high-level overview of ITM requirements. The referenced NFPA standards should be consulted for specific ITM requirements. The frequencies outlined below are considered the minimum and may be increased if deemed necessary.

System	ITM Type	Equipment / Routine	Frequency	Reference
Private Fire Service Mains	Inspection	Hose houses	Quarterly	NFPA 25
	Inspection	Hydrants	Annually	
	Testing	Hydrant flow	Annually	
	Testing	Piping flow	Every 5 years	
	Maintenance	Hose houses, hydrants, and monitor nozzles	Annually	
Water Storage Tanks	Inspection	Water level	Monthly or quarterly <sup>1</sup>	NFPA 25
	Inspection	Water temperature	Weekly or monthly <sup>2</sup>	
	Testing	Water level alarms	Semi-annually	
	Testing	Level indicators	Every 5 years	
	Maintenance	Control valves	Annually	
Fire Pumps	Inspection	Pump system	Weekly	NFPA 25
	Testing	Diesel engine-driven fire pump (no-flow)	Weekly	
	Testing	Electric motor-driven fire pump (no-flow)	Weekly or monthly <sup>3</sup>	
	Testing	Pump performance (flow)	Annually	
	Maintenance	All components	Varies per manufacturer requirements	
Sprinkler Systems	Inspection	Control valves	Weekly or monthly <sup>4</sup>	NFPA 25
	Inspection	Fire department connections	Quarterly	
	Inspection	Sprinkler heads	Annually	
	Testing	Waterflow alarm devices	Quarterly or semi-annually <sup>5</sup>	
	Testing	Main drain	Quarterly or annually <sup>6</sup>	
	Testing	Control valves	Annually	
	Maintenance	All valves	Annually	

<sup>1</sup> Monthly if not equipped with supervised water level alarms; quarterly if provided with supervised water level alarms.

<sup>2</sup> Weekly if low temperature alarms are not connected to constantly attended location; monthly if low temperature alarms are connected to constantly attended location.

<sup>3</sup> Weekly for fire pumps in high-rise structures that are beyond pumping capacity of fire department, fire pumps with limited-service controllers, vertical turbine fire pumps, and fire pumps taking suction from ground level tanks. For all other installations, monthly testing is acceptable.

<sup>4</sup> Monthly inspection acceptable provided if valves are secured with locks or supervised in accordance with NFPA requirements.

<sup>5</sup> Quarterly testing required for mechanical waterflow alarm devices; semi-annual testing required for vane-type and pressure-switch type waterflow alarm devices.

<sup>6</sup> Quarterly testing required where the sole water supply is through a backflow prevent and/or pressure-reducing valves.

<b>Standpipe and Hose Systems</b>	Inspection	Hose connections, hoses, and nozzles	Annually	NFPA 25
	Inspection	Fire department connections	Quarterly	
	Testing	Main drain	Annually	
	Testing	Hydrostatic test	Every 5 years	
	Maintenance	All valves	Annually	

<b>Portable Fire Extinguishers</b>	Inspection	Condition, pressure, and accessibility	Monthly	NFPA 10
	Testing	Hydrostatic testing	Every 5 or 12 years <sup>7</sup>	
	Maintenance	Full service	Annually	

<sup>7</sup> Hydrostatic test interval is dependent on the extinguisher type. Refer to Table 8.3.1. in NFPA 10 for further details.

<b>Wet Chemical Suppression Systems</b>	Inspection	Physical condition	Monthly	NFPA 17A
	Testing	Hydrostatic test	Every 12 years	
	Maintenance	Complete system service	Semi-annually	

<b>Dry Chemical Suppression Systems</b>	Inspection	Physical condition	Monthly	NFPA 17
	Testing	Hydrostatic test	Every 12 years	
	Maintenance	Complete system service	Semi-annually	

<b>Carbon Dioxide Suppression Systems</b>	Inspection	Physical condition	Monthly	NFPA 12
	Testing	Hydrostatic test	Every 12 years <sup>8</sup>	
	Maintenance	Complete system service	Annually	

<sup>8</sup> Carbon dioxide systems should undergo a hydrostatic test after every discharge if it's been more than 5 years since the last hydrostatic test.

<b>Clean Agent Suppression Systems</b>	Inspection	Physical condition	Monthly	NFPA 2001
	Testing	Hydrostatic test	Every 5 years	
	Maintenance	Complete system service	Annually	

<b>Emergency Generators</b>	Inspect	System components	Weekly	NFPA 110
	Testing	Operational test under load	Monthly	
	Maintenance	Complete system service	Annually	

<b>Emergency Lighting</b>	Inspection	General condition	Monthly	NFPA 101
	Testing	Functional test (30 seconds)	Monthly	
	Testing	Functional test (90 minutes)	Annually	

<b>Fire Doors</b>	Inspection	General condition	Weekly	NFPA 80
	Testing	Performance or "drop" test	Annually	
	Maintenance	Cleaning and lubrication	Monthly to annually <sup>9</sup>	

<sup>9</sup> Frequency is dependent on the environment in which doors are installed.

<b>Fire Detection and Alarm Systems</b>	Inspection	Operating condition	Weekly or annually <sup>10</sup>	NFPA 72
	Testing	Overall system functionality	Annually	
	Maintenance	System components	Variable <sup>11</sup>	

<sup>10</sup> Weekly inspections required for unsupervised systems; annual inspections required for supervised systems.

<sup>11</sup> Maintenance frequency is dependent on manufacturer requirements, as well as the environment in which systems are installed.