
Sprinkler System Quarterly Inspection By Contractor

1.0 Objective & Intent

The objective of this SOP is to establish mandatory safety protocols for the coordination, supervision, and execution of quarterly fire sprinkler system inspections performed by an external contractor. This procedure ensures compliance with WorkSafeBC regulations (OHS Regulation Part 21 – Fire Safety) and NFPA 25 standards, while mitigating risks associated with water discharge, electrical hazards, and unexpected system activation during inspection activities.

The intent is to protect all plant personnel and the contractor from injury, prevent damage to equipment and materials, and maintain the integrity of the fire suppression system. This SOP specifically addresses the hazard of inadvertent sprinkler activation, which can cause significant water damage to wood products, machinery, and electrical panels, and the risk of slips, trips, and falls from wet floors.

2.0 Operational Scope

This procedure applies to all quarterly inspections of the facility's automatic fire sprinkler system conducted by an external, licensed fire protection contractor. It covers all areas of the cabinet and millwork manufacturing plant, including production floors, finishing areas, raw material storage, and finished goods warehouses.

Personnel affected include the Plant Safety Officer, the designated Plant Contact (e.g., Maintenance Manager or Shift Supervisor), all contractor employees performing the inspection, and any plant employees working in areas adjacent to the inspection zones. This SOP does not cover annual system testing or repairs, which require separate, more detailed procedures.

3.0 Hazard Identification & Mandatory PPE

- Water Discharge Hazard: Inadvertent sprinkler activation causing water damage to electrical equipment, wood products, and finished goods, and creating slip hazards.
- Electrical Shock Hazard: Water contact with live electrical panels, motors, or wiring during inspection or testing.
- Slip, Trip, and Fall Hazard: Wet floors from test water discharge or leaks, especially near drains and test connections.
- Pinch and Crush Hazard: Manipulation of heavy valves, wrenches, and test equipment.
- Chemical Exposure: Potential contact with residual fire suppressant chemicals or corrosion inhibitors in system water.
- CSA-Approved Steel Toed Boots (with slip-resistant soles)
- Safety Glasses (with side shields) or Full Face Shield
- High-Visibility Safety Vest (for contractor and plant escort)
- Cut-Resistant Gloves (ANSI A4 or higher, for handling valves and tools)
- Hearing Protection (if inspection involves testing alarms or flow devices in noisy areas)

4.0 Required Safety Equipment & Tools

- Lockout/Tagout (LOTO) Kit with personal lock and hasp (for isolating any electrical circuits being worked on)
- Portable absorbent spill pads and socks (for containing any water discharge)
- Wet floor warning signs and barricade tape

- Non-conductive (fiberglass) ladder if access to overhead sprinkler heads is required
- Contractor's own calibrated test gauges and flow test equipment
- Two-way radios or cell phones for communication between contractor and plant contact
- Emergency shut-off valve wrench (if not permanently attached)

5.0 Step-by-Step Safety Procedure

1. **Pre-Inspection Coordination:** The Plant Safety Officer or designated Plant Contact shall review the contractor's scope of work, safety data sheets (if applicable), and proof of insurance and licensing at least 48 hours before the inspection. Confirm the contractor's site-specific safety plan aligns with this SOP.
2. **Area Notification and Isolation:** At least 24 hours prior, notify all department supervisors and affected personnel of the inspection schedule, areas to be affected, and potential water discharge. Post warning signs at all entrances to the inspection zone. Relocate or cover any water-sensitive materials (e.g., MDF panels, finished cabinets, electrical panels) with plastic sheeting.
3. **Contractor Site Entry and Safety Briefing:** Upon arrival, the Plant Contact shall escort the contractor to the designated work area. Conduct a mandatory safety briefing covering: location of emergency exits, first aid kit, eyewash station, fire alarm pull stations, and the plant's emergency evacuation procedures. Review the specific hazards identified in Section 3.0 and confirm the contractor is wearing all required PPE.
4. **System Isolation Verification:** Before any inspection or testing begins, the contractor, under the supervision of the Plant Contact, shall verify that the main water supply valve to the sprinkler system is in the fully open position (unless a specific test requires temporary closure). Confirm that all control valves are sealed and locked in the correct position per NFPA 25. Do not proceed if any valve is found in an incorrect position.
5. **Electrical Lockout/Tagout (if applicable):** If the inspection requires accessing or testing any electrical components (e.g., fire alarm panel, flow switches, tamper switches), the contractor must perform a personal LOTO on the affected circuit. The Plant Contact shall verify the LOTO is applied correctly and that zero energy state is confirmed using a non-contact voltage tester.
6. **Controlled Test Water Discharge:** For any flow tests or drain tests, the contractor shall position absorbent spill pads and a portable drain hose to direct water to a designated floor drain or outside area. Place wet floor signs and barricade tape around the test area. The Plant Contact shall monitor the area to ensure no personnel or equipment are exposed to water spray.
7. **Inspection Execution:** The contractor shall perform the quarterly inspection in accordance with NFPA 25, including visual inspection of all sprinkler heads, pipes, hangers, and control valves; testing of flow switches and tamper switches; and verification of alarm functionality. The Plant Contact shall remain within visual or voice contact at all times and document any deficiencies noted.
8. **Post-Inspection Restoration and Debrief:** Upon completion, the contractor shall close all test valves, remove all test equipment, and restore the system to its normal operating condition. The Plant Contact shall verify that all LOTO devices are removed by the contractor and that the system is fully operational. Conduct a brief debrief to review findings, deficiencies, and any required corrective actions. Remove all warning signs and barricades.
9. **Documentation and Sign-Off:** The contractor shall provide a written inspection report detailing all findings, including any deficiencies and corrective actions taken. The Plant Contact and contractor shall both sign the report. The Plant Safety Officer shall file the report in the facility's fire protection log and update the SafeDesk system with the inspection record and any follow-up tasks.
10. **Final Area Inspection:** The Plant Contact shall conduct a final walkthrough of the inspection area to ensure no water leaks, tools, or debris remain. Confirm that all absorbent materials have been disposed of properly and that the area is safe for normal production operations. If any water damage is found, initiate immediate cleanup and report to the Plant Safety Officer.

Regulatory Disclaimer: This document is a generic safety template provided for educational and informational purposes only. It does not constitute professional engineering, legal, or regulatory compliance advice. The end-user assumes all liability for validating all safety protocols against specific machinery manufacturer manuals and local occupational health and safety regulations (e.g., WorkSafeBC, CSA standards) before deployment.