
Building Fire Alarm Control Panel (FACP) Monthly Walk Test

1.0 Objective & Intent

The objective of this Standard Operating Procedure (SOP) is to define the safe and compliant method for conducting a monthly walk test of the Building Fire Alarm Control Panel (FACP) at our cabinet and millwork manufacturing facility. This procedure is mandated by WorkSafeBC regulations (OHS Regulation Part 3, Division 4) and the National Fire Code of Canada to ensure the fire alarm system is fully operational, capable of detecting a fire event, and initiating appropriate alarm signals. The primary intent is to mitigate the risk of undetected fire system failures, which could lead to catastrophic property damage, worker injury, or loss of life in an environment with high combustible dust and wood material loads.

2.0 Operational Scope

This procedure applies to all designated maintenance personnel and safety officers responsible for the monthly inspection and testing of the FACP located in the main electrical room of the manufacturing facility. It covers the walk test of all initiating devices (smoke detectors, heat detectors, manual pull stations) and notification appliances (horns, strobes, bells) connected to the FACP. This SOP does not cover annual full-system testing or repairs, which require a certified fire alarm technician.

3.0 Hazard Identification & Mandatory PPE

- **Electrical Shock:** Contact with live electrical components inside the FACP or at device terminations. Risk of serious injury or electrocution.
- **Unexpected Alarm Activation:** Sudden loud audible alarms (horns/bells) can cause startle response, hearing damage, and panic among workers.
- **Strobe Light Exposure:** Intense flashing strobe lights can trigger seizures in photosensitive individuals and cause temporary visual disorientation.
- **Slips, Trips, and Falls:** Cables, test equipment, and ladders used to reach ceiling-mounted devices create trip hazards.
- **Ladder Fall:** Using ladders to access high-mounted detectors or notification devices without proper setup or three-point contact.
- CSA-Approved Safety Glasses with side shields
- CSA-Approved Steel Toed Boots
- Hearing Protection (earplugs or earmuffs rated for 105+ dBA) – mandatory during audible alarm testing
- Class 0 Rubber Insulating Gloves with leather protectors (for any work on live electrical panels)
- High-Visibility Safety Vest (when testing in production areas with forklift traffic)

4.0 Required Safety Equipment & Tools

- FACP manufacturer's key or access code for panel controls
- Lockout/Tagout (LOTO) kit with personal lock and hasp (if panel requires de-energization for maintenance)
- Non-contact voltage tester (CAT III rated)
- Insulated screwdriver set (1000V rated)
- Smoke detector test aerosol (canned smoke) or magnet for detector testing
- Heat detector test gun or heat source (e.g., hair dryer) for rate-of-rise testing

- Ladder (Type IA, 300 lb rating) for overhead devices
- Two-way radio or cell phone for communication with assistant at the panel
- Facility floor plan with device locations marked
- Inspection log sheet and pen

5.0 Step-by-Step Safety Procedure

1. Notify all personnel and supervisors via the facility's communication system (PA announcement, email, or shift meeting) that a fire alarm walk test will be conducted. Provide the start time, expected duration, and areas affected. Instruct all workers to ignore alarm signals during the test period and to report any actual fire emergencies immediately via a separate channel.
2. Verify that the FACP is in normal standby mode (green power LED on, no trouble or alarm indicators). If any trouble or alarm condition exists, do not proceed with the test. Document the condition, notify the facility manager, and contact a certified fire alarm technician for repair.
3. Put the FACP into "Walk Test" mode using the manufacturer's key or access code. This mode silences the notification appliances (horns/strobes) for a short period (typically 30-60 seconds) after each device activation, allowing a single person to test devices without continuous noise. Confirm the panel displays "Walk Test Active" or similar message.
4. Starting at the first device on the floor plan (e.g., a manual pull station near the main exit), activate the device according to its type. For a pull station, pull the handle. For a smoke detector, use the test aerosol directed into the detector chamber. For a heat detector, apply heat from the test gun. For a duct detector, use the test port. Ensure the device activates and sends a signal to the FACP.
5. Observe the FACP display to confirm it receives the alarm signal from the specific device. The panel should show the device address, zone, and type. If the panel does not register the alarm, note the device location and address for follow-up repair. Do not proceed to the next device until the current device is confirmed or documented as faulty.
6. After confirming the panel receives the signal, reset the device (e.g., push the pull station handle back in, clear smoke from detector chamber, allow heat detector to cool). Then, from the FACP, press the "Acknowledge" or "Silence" button, followed by "System Reset" to clear the alarm condition. Wait for the panel to return to normal standby mode before testing the next device.
7. Repeat steps 4 through 6 for every initiating device on the floor plan, including all smoke detectors, heat detectors, manual pull stations, and duct detectors. For each device, record the test result (pass/fail) and any observations on the inspection log sheet. If a device fails, tag it with a "Do Not Use" or "Out of Service" tag and report it to the facility manager immediately.
8. After all initiating devices have been tested, exit Walk Test mode on the FACP. The panel should return to normal standby mode. Then, perform a final audible and visual test by activating one manual pull station. This will sound all notification appliances (horns/strobes) for a full cycle. Verify that all horns sound at the correct volume and all strobes flash synchronously throughout the facility. Use hearing protection during this step.
9. Reset the FACP after the full alarm cycle. Confirm the panel returns to normal standby mode with no trouble or alarm indicators. If any trouble signals appear (e.g., "Ground Fault," "Open Circuit"), document them and contact a certified fire alarm technician for diagnosis and repair before the end of the shift.
10. Complete the inspection log sheet with the date, time, tester name, list of all devices tested, results, and any deficiencies noted. Submit the log to the safety officer for filing. Ensure the FACP is left in normal standby mode, the panel door is closed and locked, and all test equipment is removed from the area.

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