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# Hot Work Permit Issuance And 60 Minute Fire Watch Protocol

## 1.0 Objective & Intent

The objective of this SOP is to establish a standardized, controlled process for the issuance of hot work permits and the execution of a mandatory 60-minute fire watch following any hot work activity. This procedure is designed to mitigate the risk of fire and explosion in areas where welding, cutting, grinding, or other spark-producing operations are performed within the cabinet and millwork facility. Compliance with WorkSafeBC regulations (OHS Regulation Part 21) is mandatory to protect personnel, property, and production continuity.

## 2.0 Operational Scope

This procedure applies to all hot work activities conducted by maintenance personnel, contractors, or any authorized employees within the facility, including production floors, finishing areas, maintenance shops, and storage zones. It covers the issuance, execution, and post-work monitoring phases. All personnel involved in hot work or fire watch duties must be trained and authorized per this SOP.

## 3.0 Hazard Identification & Mandatory PPE

- Fire and Explosion: Sparks, slag, and molten metal can ignite combustible dust, wood shavings, sawdust, finishes, and solvents present in the millwork environment.
- Burns and Eye Injury: Direct exposure to flames, hot surfaces, and ultraviolet/infrared radiation from welding arcs.
- Inhalation of Toxic Fumes: Welding and cutting produce metal fumes and gases that can cause respiratory irritation or long-term health effects.
- Electrical Shock: Contact with live electrical components during hot work setup or execution.
- Mandatory PPE: CSA-approved welding helmet with appropriate shade lens, flame-resistant welding jacket or apron, welding gloves, safety glasses with side shields under helmet, hearing protection (earplugs or earmuffs), and CSA-approved steel-toed boots. Respiratory protection (N95 or half-face respirator with appropriate cartridges) must be worn if ventilation is inadequate.

## 4.0 Required Safety Equipment & Tools

- Hot Work Permit form (paper or digital via SafeDesk)
- Fire extinguisher (minimum 10 lb ABC-rated, with current inspection tag)
- Fire watch kit containing a charged fire hose or additional extinguisher, a fire blanket, and a portable fire monitor if available
- Spark-resistant barriers or welding curtains (to contain sparks and slag)
- Combustible gas detector (for confined spaces or areas with solvent vapors)
- Portable ventilation fans (to control fumes and maintain air quality)
- Lockout/Tagout (LOTO) kit if hot work involves electrical disconnection
- Personal lock and hasp for LOTO

## 5.0 Step-by-Step Safety Procedure

1. Verify that the hot work area is clear of all combustible materials within a 35-foot radius. Remove or cover wood dust, sawdust, finishes, solvents, and any flammable liquids with fire-resistant blankets or metal shields. Post warning signs at all access points to the work zone.
2. Complete the Hot Work Permit form, including the exact location, type of hot work, start and end times, and the names of the authorized worker and designated fire watch. Obtain written authorization from the Plant Safety Officer or designated supervisor before any hot work begins.
3. Inspect all hot work equipment (welder, grinder, cutting torch, leads, hoses) for damage, proper grounding, and secure connections. Ensure the fire extinguisher is accessible, fully charged, and inspected within the last month. Position the fire watch kit nearby.
4. Conduct a pre-work safety briefing with the hot work operator and the fire watch. Review the specific hazards, emergency procedures, and communication signals. Confirm that the fire watch understands their sole responsibility is to monitor for fire, not to assist with the hot work.
5. Don all required PPE as listed in Section 3.0. The fire watch must wear safety glasses, hearing protection, and flame-resistant clothing. The hot work operator must wear the full welding ensemble.
6. Begin hot work only after the fire watch is in position with a clear view of the work area and a charged extinguisher in hand. The fire watch must continuously scan for sparks, smoldering materials, or ignition sources. No hot work is permitted if the fire watch leaves the area for any reason.
7. Upon completion of hot work, the operator must shut down all equipment and allow the work piece to cool. The fire watch must immediately begin a 60-minute continuous fire watch, inspecting the work area and all adjacent surfaces (including behind walls, under floors, and above ceilings if accessible) for signs of heat, smoke, or fire.
8. During the 60-minute fire watch, the fire watch must document every 15 minutes on the permit or a log sheet: time, area inspected, and any findings (e.g., 'no signs of fire'). If any smoldering or fire is detected, the fire watch must immediately activate the fire alarm, use the extinguisher if safe, and notify the Plant Safety Officer.
9. After the 60-minute fire watch is complete and no fire hazards remain, the fire watch must sign off the permit, noting the end time and a final 'all clear' statement. The permit must be submitted to the Plant Safety Officer for record-keeping and retained for at least one year.
10. Restore the work area to its normal condition: remove barriers, fire blankets, and warning signs. Return all safety equipment to its designated storage. Conduct a final walkthrough with the Plant Safety Officer if required by facility policy.

**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.