



## 19.2 Hot Work Permit Procedure

Last Revision: Oct 2011

### 1.0 Purpose

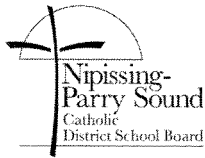
- .01 The Hot Work Permit system shall be used for any temporary operation that involves open flames or producing heat and or sparks. This system minimizes fire exposure during hot work operations by ensuring that they are conducted under fire safe conditions. It also outlines the steps that should be followed before, during and after any hot work is performed.
- .02 Any maintenance operation performed by Contractors (excluding major construction or renovation projects) that produces open flames, heat or sparks such as welding, cutting, brazing, soldering, open torch heating, grinding, torch-applied roofing must be approved by the School Principal or the Custodian and shall not be performed without a Hot Work Permit. All permits shall be retained for documentation purposes.

### 2.0 Issuing Permit

- .01 "Hot work" shall not be performed unless:
  - The area can be made safe for the hot work.
  - The Plant Department at the Board Office has been notified.
  - The work has been approved by the School Principal or Custodian.
  - A "Hot Work Permit" has been issued; and,
  - Hot work shall only be performed within the authorized time frame and only as long as conditions remain safe.
- .02 The following options shall be considered by the School Principal or Custodian prior to issuing a hot work permit:
  - Can the work be done with a hand saw, pipe cutter or other such equipment?
  - Would other fasteners (nuts and bolts) suffice instead of a weld?
  - If not, can all the combustibles be removed from the work area or can the work itself be moved?
  - Consult with the Plant Department if additional information is required.
- .03 "Hot work" shall not be performed if:
  - If the area can't comply with the Factory Mutual Insurance Company (FM Global) "Hot Works Permit System Wall Kit" (refer to section 9.0).
  - Processes involving flammable liquids and gases cannot be shut down and made safe.
  - Partitions, walls, ceilings, or roofs have combustible coverings and are made of combustible sandwich-type construction (e.g., expanded plastic insulation);
  - Pipe or other metals can conduct enough heat to ignite nearby combustibles and if large quantities of combustibles are impractical to move or cover.
- .04 No School Board employees shall perform hot work.

### 3.0 Responsibilities of the School Principal/Custodian

- .01 Only the Principal/Custodian shall consider the items in section 2.0 prior to issuing a Hot



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Work Permit (refer to section 10.0) in the school. Once the Principal/Custodian is certain the fire safety precautions are met, they can authorize the Hot Work Permit by completing the Hot Work Permit System Wall Kit provide by FM Global. The Contractor is not to fill out the Hot Work Permit.

- .02 The Plant Department at the Board Office shall be notified of the proposed work.
- .03 The information on the permit shall include:
  - The name of person (Contractor) doing the work;
  - The location and nature of the hot work;
  - The expiration date and time of the permit (not beyond one work shift); and,
  - The emergency notification procedures.
  - The Principal/Custodian signature ensuring the location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire.
- .04 Principal/Custodian shall inspect the proposed work area and ensure that the fire safety precautions are met by the Contractor performing the work.
- .05 The following is a list of precautions that shall be satisfied:

### 1) General

- Ensure hose streams and extinguishers are in service and operable.
- Ensure the Hot Work equipment is in good repair.

### 2) Requirements Within 35 feet (11 meters) of Work

- Flammable liquids, dust, lint and oily deposits shall be removed and explosive atmospheres eliminated
- Floors shall be swept clean and all wall and floor openings covered.
- Combustible floors shall be wet down, covered with damp sand or fire-resistive sheets.
- Other combustibles shall be removed where possible. Otherwise protect with approved welding pads, blankets, and curtains, fire-resistive tarpaulins or metal shields.
- Approved welding pads, blankets, and curtains shall be under and around work area.
- Protect or shut down ducts that may carry sparks to distant combustibles.

### 3) Work on Walls; Ceilings or Roofs

- Ensure constructions is noncombustible and without combustible covering or insulation.
- Ensure combustibles on other side of walls, ceilings or roofs are moved away.

### 4) Work on Enclosed Equipment

- Enclosed equipment shall be cleaned of all combustibles.
- Containers shall be purged of flammable liquids and vapors.

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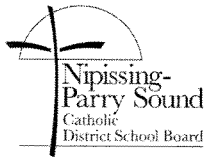
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- Pressurized vessels, piping and equipment removed from service, isolated and vented.

### 5) Fire Watch/Hot Work are Monitoring

- Fire watch shall be, provided during and for 60 minutes after work, including any coffee or lunch breaks.
  - Fire watch shall be supplied with suitable extinguishers.
  - Fire watch shall be trained in use of extinguishers and made aware of the location of the nearest pull station.
  - Fire watch may be required in adjoining areas, above and below.
  - The Hot Work area shall be monitored for 4 hours after job is completed.
- .06 If all conditions on the Hot Work Permit are satisfied sign and issue the permit.
- .07 Hang the permit in the "Hot Work Permit System Wall Kit" and display the portable sign in the area the hot work is being performed.
- .07 Assign a person on fire watch as required.
- .08 Upon completion of the hot work, the work area and all adjacent areas to which sparks may have spread were inspected and were found safe, the Fire Watch shall sign the hot work permit.
- .09 When the monitoring period of 3 hours is over, perform a final inspection of the work area and sign the permit;

### 4.0 Fire Watcher - School Principal/Custodian

- .01 The objective of the fire watch is to prevent a fire from starting. The school Principal/Custodian shall act as fire watch.
- .02 The number of fire watches required during hot work is as follows:
- In multi-story buildings: A fire watcher is needed on the floor where the hot work is being conducted, the floor below, and the floor above.
  - Walls: A fire watcher is needed on both sides of the wall.
  - Roof: A fire watcher is needed on the roof and inside the building.
- .03 Ensure the sprinkle valves are open in the sprinkler buildings.
- .04 Ensure the hot work area remains in its same fire safe condition as when the hot work was authorized.
- .05 Observe the Contractor performing the hot work; for stray sparks, ignition, or other fire hazards.
- .06 Have an appropriate fire extinguisher on hand and be made aware of the location of the nearest pull station.



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- .08 When the hot work is complete, remain in the area to check for smoldering fires.
  - .09 Monitor the hot work area during, 1 hour after operation and 3 hours after the hot work is completed.
  - .10 Perform inspections extending to the floors above and below the work area and in adjacent rooms.
  - .11 Once the 4 hour monitoring period is expired, remove the permit, retain a permanent record of the work, issue a copy to the Contractor and send a copy to the Plant Department at the Board Office.

### 6.0 Duties of the Contractor Performing the Hot Work

The Contractor/person(s) performing the hot work shall perform the following fire safety precautions prior to starting the "hot work":

- .01 Ensure the hot work equipment in good working condition. Damaged equipment such as hoses and hose attachments should not be used.
- .02 Flammable liquids, dust, lint and oily deposits shall be removed and explosive atmospheres eliminated within 35 feet of the Hot Work.
- .03 Floors shall be swept clean and all wall and floor openings covered.
- .04 Combustible floors shall be wet down, covered with damp sand or fire-resistive sheets.
- .05 Other combustibles shall be removed where possible. Otherwise protect with approved welding pads, blankets, and curtains, fire-resistive tarpaulins or metal shields.
- .06 Approved welding pads, blankets, and curtains shall be under and around work area.
- .07 Enclosed equipment shall be cleaned of all combustibles.
- .08 Containers shall be purged of flammable liquids and vapors.
- .09 Pressurized vessels, piping and equipment removed from service, isolated and vented.
- .10 If hot work is conducted near the ceiling, suspend fire-resistive tarpaulins below the work and place noncombustible screens around the work area at the floor level.
- .11 When a wall, ceiling or roof construction is combustible, take special precautions if there is no alternative to hot work. Completely shield the work area from the combustible construction with fire-resistive tarpaulins, metal screens, or continually wetting the area while the hot work is being performed;
- .13 Make aware to the Fire Watcher that the work will commence.

### 7.0 Open Flames



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- .01 Open flames such as candles are prohibited in schools.
  - .02 Pyrotechnics used for dramatic arts or concerts are not permitted in schools.

### 8.0 Health and Safety Inspections

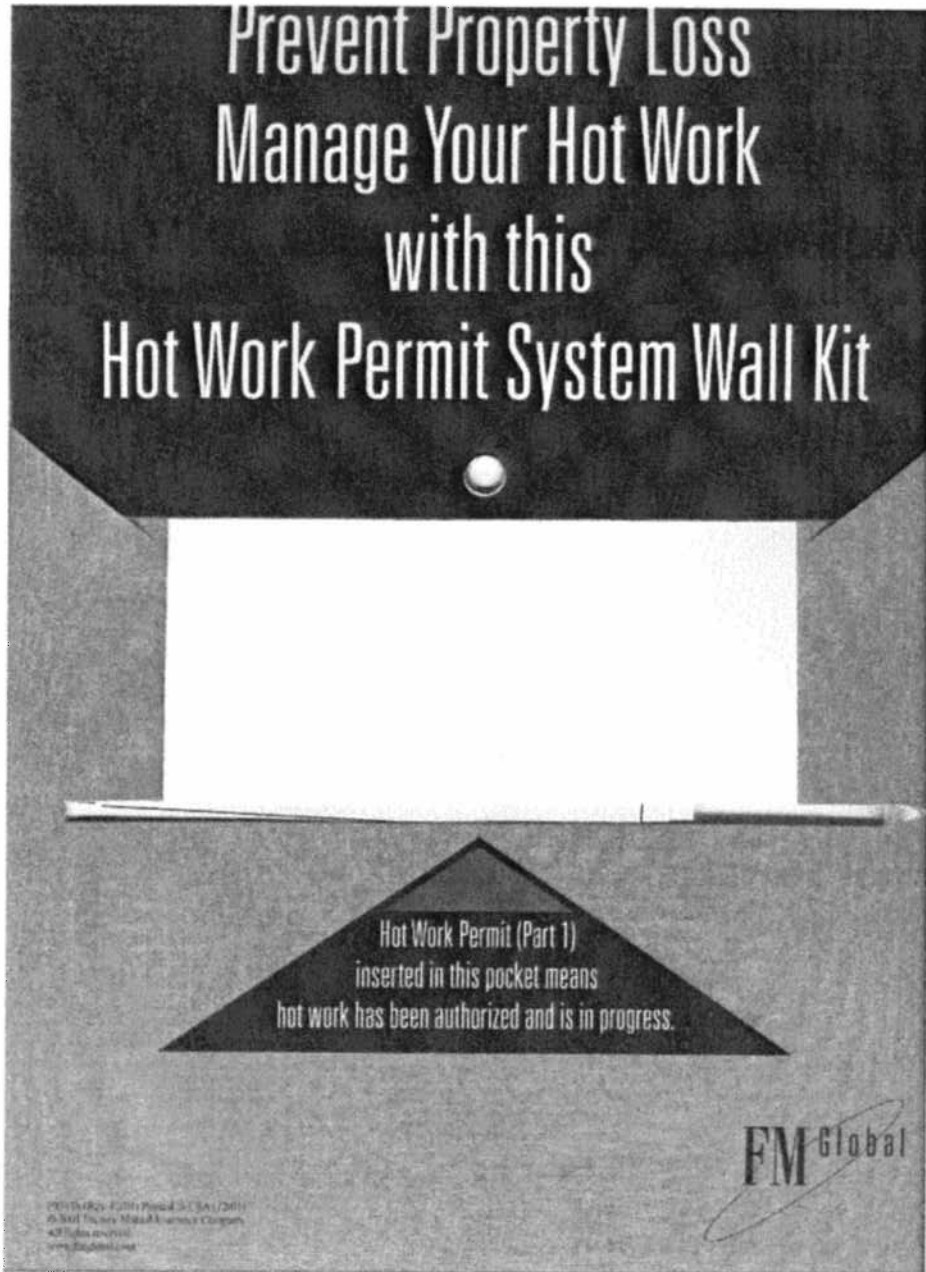
- .01 As part of the regular Health and Safety inspections, the Health and Safety Officer shall review the completed hot work permits to ensure that the Hot Work Permit System is being used. The Health and Safety Officer shall provide feedback to the Plant Department on the use of the permits. Breakdowns in the use of the Hot Work Permit System identified by the Health and Safety Officer shall be discussed with the School Principal.

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### 9.0 Hot Work Permit System Wall Kit

- .01 Authorize Hot Work Permit System Wall Kit provide by FM Global.



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## 10.0 Hot Work Permit

.01 Hot Work Permit provided in the Hot Work Permit System Wall Kit.

### HOT WORK PERMIT

BEFORE INITIATING HOT WORK, CAN THIS JOB BE AVOIDED?  
IS THERE A SAFER WAY?

This Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering, Torch Applied Roofing and Welding.

INSTRUCTIONS	PART 1 REQUIRED PRECAUTIONS CHECKLIST								
<p><b>I. Firesafety supervisor:</b></p> <p><b>A.</b> Verify precautions listed at right (or do not proceed with the work).</p> <p><b>B.</b> Complete and retain Part 1. (Part 1A is a copy for expanded hot work situations).</p> <p><b>C.</b> Issue Part 2 to person doing job.</p> <p><b>HOT WORK BEING DONE BY:</b></p> <p><input type="checkbox"/> EMPLOYER</p> <p><input type="checkbox"/> CONTRACTOR</p> <p>DATE _____ JOB NUMBER _____</p> <p>LOCATION/BUILDING AND FLOOR _____</p> <p>NATURE OF JOB _____</p> <p>NAME OF PERSON DOING HOT WORK _____</p> <p>I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.</p> <p>SIGNED: Firesafety Supervisor/Personnel Supervisor _____</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 30%;">PERMIT EXPIRES</th> <th style="width: 20%;">DATE</th> <th style="width: 20%;">TIME</th> <th style="width: 30%;">AM/PM</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> <p style="font-size: small; margin-top: 10px;">NOTE: EMERGENCY NOTIFICATION ON BACK OF FORM. USE AS APPROPRIATE FOR YOUR FACILITY.</p> <div style="text-align: center; margin-top: 10px;">  <p style="font-size: x-small;">#2520 (REV. 4/95) PRINTED IN USA (4/95) © 2002 Firearm Mutual Insurance Company All rights reserved.</p> </div>	PERMIT EXPIRES	DATE	TIME	AM/PM					<div style="float: right; border: 1px solid black; padding: 5px; width: 30px; text-align: center; font-weight: bold;">6214753</div> <p><b>REQUIRED PRECAUTIONS CHECKLIST</b></p> <p><input type="checkbox"/> Available spill/stop, hose streams and extinguishers are in service/operable.</p> <p><input type="checkbox"/> Hot Work equipment in good repair.</p> <p><b>Requirements within 35 ft (11 m) of work</b></p> <p><input type="checkbox"/> Flammable liquids, dust, fat and oily deposits removed.</p> <p><input type="checkbox"/> Explosive atmosphere is also eliminated.</p> <p><input type="checkbox"/> Floors swept clean.</p> <p><input type="checkbox"/> Conductible floors wet down, covered with damp sand or fire-resistant cloth.</p> <p><input type="checkbox"/> Remove other combustibles where possible. Otherwise protect with FM approved welding pads, blankets, and curtains, fire-resistant tapestries or metal shields.</p> <p><input type="checkbox"/> All wall and floor openings covered.</p> <p><input type="checkbox"/> FM Approved welding pads, blankets, and curtains installed under and around work.</p> <p><input type="checkbox"/> Protect or shut down ducts and conveyors that might carry sparks to distant combustibles.</p> <p><b>Work on walls, ceilings or roofs</b></p> <p><input type="checkbox"/> Construction is noncombustible and without combustible covering or insulation.</p> <p><input type="checkbox"/> Combustibles on other side of walls, ceilings or roofs are moved away.</p> <p><b>Work on enclosed equipment</b></p> <p><input type="checkbox"/> Enclosed equipment cleaned of all combustibles.</p> <p><input type="checkbox"/> Containers purged of flammable liquids/vapors.</p> <p><input type="checkbox"/> Pressurized vessels, piping and equipment removed from service, isolated and vented.</p> <p><b>Fire watch/Hot Work area monitoring</b></p> <p><input type="checkbox"/> Fire watch will be provided during and for 30 minutes after work, including any call-in for back breaks.</p> <p><input type="checkbox"/> Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.</p> <p><input type="checkbox"/> Fire watch is trained in use of equipment and in sounding alarm.</p> <p><input type="checkbox"/> Fire watch may be required in adjoining areas, above and below.</p> <p><input type="checkbox"/> Monitor Hot Work area for 3 hours after job is completed.</p> <p><b>Other Precautions Taken:</b></p> <p><input type="checkbox"/> _____</p>
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