AO Smith

Water Heater #1 Shut Down Process

Energy Source(s) Electric – Gas

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Notify affected employees of shut down (operators, area personnel)</td>
</tr>
<tr>
<td>Step 2</td>
<td>Turn off machine using accepted procedure (operator)</td>
</tr>
</tbody>
</table>
| Step 3 | Electrical panel E6 in Receiving Area
- Turn off Breaker # 17 |
| Step 4 | Ball Valve (Gas)
- Turn off valve
- Attach ball valve lock out device then tag and lock |
| Step 5 | Attempt to start machine; make sure that it CANNOT be started. Verify no energy is present in panel at line side of disconnect switch by testing with multi meter or voltage detector. |

Restoring the water heater #1

1. Make sure work area is clear of equipment and personnel and ready for restarting of the equipment.
2. Verify controls are in the off or neutral position.
3. Remove locks, tags and lockout devices and return control device to the “on” position.
4. Notify affected employees that equipment will be restarted.
5. Restart equipment using regular operating procedures.
**AO Smith Water Heater#2 Shut Down Process**
**Energy Source(s):** Electric – Gas

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Notify affected employees of shut down (operators, area personnel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Turn off machine using accepted procedure (operator)</td>
</tr>
<tr>
<td>Step 3</td>
<td>Electrical panel E6 in Receiving Area</td>
</tr>
<tr>
<td></td>
<td>• Turn off Breaker # 17</td>
</tr>
<tr>
<td>Step 4</td>
<td>Ball Valve (Gas)</td>
</tr>
<tr>
<td></td>
<td>• Turn off valve</td>
</tr>
<tr>
<td></td>
<td>• Attach ball valve lock out device then tag and lock</td>
</tr>
<tr>
<td>Step 5</td>
<td>Attempt to start machine; make sure that it CANNOT be started. Verify no energy is present in panel at line side of disconnect switch by testing with multi meter or voltage detector.</td>
</tr>
</tbody>
</table>

**Restoring the water heater #2**

1. Make sure work area is clear of equipment and personnel and ready for restarting of the equipment.
2. Verify controls are in the off or neutral position.
3. Remove locks, tags and lockout devices and return control device to the “on” position.
4. Notify affected employees that equipment will be restarted.
5. Restart equipment using regular operating procedures.

**Energy Control Procedure**
St Cloud Public Schools – Clearview School – Boiler room  
**Equipment:** water heater#2  
**Manufacturer:** AO SMITH  
**Scope:** This scope covers any servicing or maintenance of the equipment that may expose the maintenance person(s) to hazard.  
**Purpose:** To provide specific guidance to authorized personnel on how to de-energize the equipment, to prevent the unexpected start-up or release of energy that could result in injury or death to employee or authorized others.  
**Authorization:** Authorized employees trained in lockout & tag out procedures are to install lockout & tag out devices in accordance with company procedure. Lockout and tag out devices will only be removed by the installer or the maintenance leader.  
**Compliance:** Failure to comply with established procedure will result in disciplinary action or termination.
### Restoring the Boiler #1

1. Make sure work area is clear of equipment and personnel and ready for restarting of the equipment.
2. Verify controls are in the off or neutral position.
3. Remove locks, tags and lockout devices and return control device to the “on” position.
4. Notify affected employees that equipment will be restarted.
5. Restart equipment using regular operating procedures.

### Energy Control Procedure

**St Cloud Public Schools – Clearview School – Boiler room**

**Equipment:** Boiler #1

**Manufacturer:** Fulton

**Scope:** This scope covers any servicing or maintenance of the equipment that may expose the maintenance person(s) to hazard.

**Purpose:** To provide specific guidance to authorized personnel on how to de-energize the equipment, to prevent the unexpected start-up or release of energy that could result in injury or death to employee or authorized others.

**Authorization:** Authorized employees trained in lockout & tag out procedures are to install lockout & tag out devices in accordance with company procedure. Lockout and tag out devices will only be removed by the installer or the maintenance leader.

#### Step 1
Notify affected employees of shut down (operators, area personnel)

#### Step 2
Turn off machine using accepted procedure (operator)

#### Step 3
Electrical panel HP-O-1 in Receiving Area
- Turn off Breaker # 43,45,47

#### Step 4
Ball Valve (Gas)
- Turn off valve
- Attach ball valve lock out device then tag and lock

#### Step 5
Ball Valve (hot water)
- Turn off valve
- Attach ball valve lock out device then tag and lock

#### Step 6
Attempt to start machine; make sure that it CANNOT be started. Verify no energy is present in panel at line side of disconnect switch by testing with multi meter or voltage detector.
Restoring the Boiler #2

1. Make sure work area is clear of equipment and personnel and ready for restarting of the equipment.
2. Verify controls are in the off or neutral position.
3. Remove locks, tags and lockout devices and return control device to the “on” position.
4. Notify affected employees that equipment will be restarted.
5. Restart equipment using regular operating procedures.

Energy Control Procedure
St Cloud Public Schools – Clearview School – Boiler room
Equipment: Boiler #2
Manufacturer: Fulton
Scope: This scope covers any servicing or maintenance of the equipment that may expose the maintenance person(s) to hazard.
Purpose: To provide specific guidance to authorized personnel on how to de-energize the equipment, to prevent the unexpected start-up or release of energy that could result in injury or death to employee or authorized others.
Authorization: Authorized employees trained in lockout & tag out procedures are to install lockout & tag out devices in accordance with company procedure. Lockout and tag out devices will only be removed by the installer or the maintenance leader.
Compliance: Failure to comply with established procedure will result in disciplinary action or termination.

Fulton Boiler #2 Shut Down Process
Energy Source(s) Electric – Gas

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Notify affected employees of shut down (operators, area personnel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Turn off machine using accepted procedure (operator)</td>
</tr>
<tr>
<td>Step 3</td>
<td>Electrical panel HP-O-1 in Receiving Area</td>
</tr>
<tr>
<td></td>
<td>• Turn off Breaker # 49,51,53</td>
</tr>
<tr>
<td>Step 4</td>
<td>Ball Valve (Gas)</td>
</tr>
<tr>
<td></td>
<td>• Turn off valve</td>
</tr>
<tr>
<td></td>
<td>• Attach ball valve lock out device then tag and lock</td>
</tr>
<tr>
<td>Step 5</td>
<td>Ball Valve (hot water)</td>
</tr>
<tr>
<td></td>
<td>• Turn off valve</td>
</tr>
<tr>
<td></td>
<td>• Attach ball valve lock out device then tag and lock</td>
</tr>
<tr>
<td>Step 6</td>
<td>Attempt to start machine; make sure that it CANNOT be started.</td>
</tr>
</tbody>
</table>
### Energy Control Procedure

**St Cloud Public Schools – Clearview School – Kitchen**

**Equipment:** booster heater  
**Manufacturer:** Hatco  
**Scope:** This scope covers any servicing or maintenance of the equipment that may expose the maintenance person(s) to hazard.  
**Purpose:** To provide specific guidance to authorized personnel on how to de-energize the equipment, to prevent the unexpected start-up or release of energy that could result in injury or death to employee or authorized others.  
**Authorization:** Authorized employees trained in lockout & tag out procedures are to install lockout & tag out devices in accordance with company procedure. Lockout and tag out devices will only be removed by the installer or the maintenance leader.  
**Compliance:** Failure to comply with established procedure will result in disciplinary action or termination.

### Hatco Booster Heater Shut Down Process

**Energy Source(s):** Electric – Gas

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>Notify affected employees of shut down (operators, area personnel)</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>Turn off machine using accepted procedure (operator)</td>
</tr>
</tbody>
</table>
| **Step 3** | Electrical panel E5RT in Receiving Area  
• Turn off Breaker # 14 |
| **Step 4** | Ball Valve (Gas)  
• Turn off valve  
• Attach ball valve lock out device then tag and lock |
| **Step 5** | Attempt to start machine; make sure that it CANNOT be started. Verify no energy is present in panel at line side of disconnect switch by testing with multi meter or voltage detector. |

### Restoring the Booster Heater

1. Make sure work area is clear of equipment and personnel and ready for restarting of the equipment.  
2. Verify controls are in the off or neutral position.  
3. Remove locks, tags and lockout devices and return control device to the “on” position.  
4. Notify affected employees that equipment will be restarted.  
5. Restart equipment using regular operating procedures.
Lockout Tagout Specific Procedure

Building: Clearview Elementary Boiler Room
Machine: Air Compressor - Quincy

1. Notify affected employees that the machine/equipment will be shut down and locked/tagged out.
2. If the machine/equipment is operating, shut it down by the normal stopping procedure.
   Operating Control Location: Air pressure regulator on unit
3. Turn off the (Electric/pneumatic) energy sources by placing energy isolating devices in the off position.

Operating Control Location
Isolating Device Location 1
Isolating Device Location 2
Air pressure regulator on unit
Panel E6-Right, breaker #11
Pressure release valve on unit

4. Lockout the energy isolating device(s) with assigned individual locks.
5. Dissipate residual energy: **Apply lockout device to source of electricity, bleed air from tank and lines**
6. Verify that equipment is disconnected from the energy source(s) **Attempt to start, check pressure gauge**
   Caution: Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

Restoring Air Compressor to Service

When the servicing or maintenance is completed, and the machine/equipment is ready to be returned to normal operating condition, the following steps shall be taken:
1. Notify affected employees that maintenance has finished and lock and tags will be removed.
2. Check the machine/equipment and the immediate area around the machine/equipment to ensure that nonessential items have been removed and that employees have been notified of the startup.
3. Verify that the controls are in neutral or off.
4. Remove the lockout devices and re-energize the **Electric/pneumatic**
5. **Restart the equipment.**
Lockout Tagout Specific Procedure

Building: Clearview Elementary Boiler Room
Machine: Cooler Compressor

1. Notify affected employees that the machine/equipment will be shut down and locked/tagged out.
2. If the machine/equipment is operating, shut it down by the normal stopping procedure.
   Operating Control Location: Thermostat on unit
3. Turn off the (Electric/pneumatic) energy sources by placing energy isolating devices in the off position.

   Operating Control Location: Thermostat on unit
   Isolating Device Location 1:Knife switch next to unit
   Isolating Device Location 2: Refrigerant capture port on unit (internal)

4. Lockout the energy isolating device(s) with assigned individual locks.
5. Dissipate residual energy: **SERVICED ONLY BY CERTIFIED REFRIGERATION SPECIALIST**
6. Verify that equipment is disconnected from the energy source (s) **SERVICED ONLY BY CERTIFIED REFRIGERATION SPECIALIST**
   Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

---

Restoring Cooler Compressor to Service

When the servicing or maintenance is completed, and the machine/equipment is ready to be returned to normal operating condition, the following steps shall be taken:

1. Notify affected employees that maintenance has finished and lock and tags will be removed.
2. Check the machine/equipment and the immediate area around the machine/equipment to ensure that nonessential items have been removed and that employees have been notified of the startup.
3. Verify that the controls are in neutral or off.
4. Remove the lockout devices and re-energize the **Electric/pneumatic**
5. Restart the equipment.
Lockout Tagout Specific Procedure

Building: Clearview Elementary Boiler Room
Machine: Freezer Compressor

1. Notify affected employees that the machine/equipment will be shut down and locked/tagged out.
2. If the machine/equipment is operating, shut it down by the normal stopping procedure.
   Operating Control Location: Thermostat on unit
3. Turn off the (Electric/pneumatic) energy sources by placing energy isolating devices in the off position.
   Operating Control Location: Thermostat on unit
   Isolating Device Location 1: Knife switch next to unit
   Isolating Device Location 2: Refrigerant capture port on unit (internal)

4. Lockout the energy isolating device(s) with assigned individual locks.
5. Dissipate residual energy: SERVICED ONLY BY CERTIFIED REFRIGERATION SPECIALIST
6. Verify that equipment is disconnected from the energy source(s) SERVICED ONLY BY CERTIFIED REFRIGERATION SPECIALIST
   Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

Restoring Freezer Compressor to Service

When the servicing or maintenance is completed, and the machine/equipment is ready to be returned to normal operating condition, the following steps shall be taken:
1. Notify affected employees that maintenance has finished and lock and tags will be removed.
2. Check the machine/equipment and the immediate area around the machine/equipment to ensure that nonessential items have been removed and that employees have been notified of the startup.
3. Verify that the controls are in neutral or off.
4. Remove the lockout devices and re-energize the Electric/pneumatic
5. Restart the equipment.

© IEA 2007
Lockout Tagout Specific Procedure

Building: Clearview Elementary Maintenance Garage
Machine: Unit Heater

1. Notify affected employees that the machine/equipment will be shut down and locked/tagged out.
2. If the machine/equipment is operating, shut it down by the normal stopping procedure.
   Operating Control Location: Thermostat next to unit
3. Turn off the (Electric/natural gas) energy sources by placing energy isolating devices in the off position.

   Operating Control Location: Thermostat next to unit
   Isolating Device Location 1: Toggle switch next to unit
   Isolating Device Location 2: Ball valve on natural gas pipeline supplying unit

4. Lockout the energy isolating device(s) with assigned individual locks.
5. Dissipate residual energy: Apply lockout device to source of electricity and natural gas, allow unit to cool
6. Verify that equipment is disconnected from the energy source(s) Attempt to start
   Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

Restoring Unit Heater to Service

When the servicing or maintenance is completed, and the machine/equipment is ready to be returned to normal operating condition, the following steps shall be taken:
1. Notify affected employees that maintenance has finished and lock and tags will be removed.
2. Check the machine/equipment and the immediate area around the machine/equipment to ensure that nonessential items have been removed and that employees have been notified of the startup.
3. Verify that the controls are in neutral or off.
4. Remove the lockout devices and re-energize the Electric/natural gas
5. Restart the equipment.