Periodic Inspection Preparation Guideline – Boilers and Pressure Vessels

External Inspection (In-service)

In-service inspection requires that you schedule the inspection for a time when short interruptions of the Boiler or Pressure Vessel will not have an adverse impact on your facility's operations. An important part of this preparation is ensuring that qualified operators and/or maintenance personnel are available to conduct any testing of controls and safety devices, as may be required by your Local TSSA Inspector. It is also important to notify all production personnel as appropriate that an inspection is in progress. Once the inspection is completed, the production personnel should be notified that operations have returned to normal.

Internal Inspection (Device Shut down and Opened for Inspection)

Preparation for an internal inspection is somewhat more involved since the Boiler or Pressure Vessel must be shut down and opened. Details vary depending on the specific jurisdictional requirements and type Boiler or Pressure Vessel being inspected. You should consult with your Local TSSA Inspector to determine if any additional preparation is required.

Boiler or Pressure Vessel

1. Shut down the Boiler or Pressure Vessel using proper shut down procedures as required.
2. Lockout and tag all steam, water, pressure sources, and electrical disconnects.
3. Open all drain and vent lines and drain the Boiler or Pressure Vessel
4. Remove all manhole and handhole cover plates.
5. Flush all sludge and loose scale from boiler interior. Check with your Local TSSA Inspector first as some inspectors prefer to leave scale and sludge in the Boiler or Pressure Vessel for inspection.
6. Have new gaskets ready for all openings; it is not recommended to reuse gaskets.

Additional Boiler Preparation Information

In addition to the above, preparation for a Boiler Internal Inspection should also include the following:

1. Allow Boiler to cool completely, 24 to 48 hours depending on the style and size
2. Lockout and tag all steam, water, and fuel valves, the ignition system, and electrical disconnects
3. Remove all washout plugs.
4. Remove inspection plugs in water column connectors.
5. Opening all low-water fuel cut-out device float chambers.
6. Opening all low-water fuel cut-out device cross tee piping plugs.
7. After draining and flushing the boiler, close, lockout, and tag blow off valves.
8. Open all fireside access panels/doors, front and rear.
9. Remove all soot and ash from boiler furnace surfaces and grates (if applicable). Please check with your Local TSSA Inspector to determine if examination of the area is required before cleaning.

Notes:

a) *Dry Cleaner Boiler* – The Water Level probe(s) should be removed and cleaned or replaced as necessary.
b) *Fire Box Fusible Plug* – The fusible plug should be removed, inspected and replaced if damaged.
c) *Refractory* – Refractory should be inspected for cracks and damage and repaired if necessary

d) If the inspection will include an internal inspection where the Inspector must physically enter the Boiler or Pressure Vessel, it will be necessary to employ an appropriate Confined Space Entry Program. Please consult with your Local TSSA Inspector prior to their scheduled visit.

e) If a Boiler or Pressure Vessel has not been properly prepared for an internal inspection, the assigned TSSA

f) Inspector may refuse to make the inspection until such time as the device has been properly prepared.