

Steam boiler annual maintenance checklist

The annual steam boiler service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against ASME boiler and pressure vessel code, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The boiler service lead runs the service; the jurisdictional or insurance inspector performs the certificate inspection, which is observed and recorded. When: Once a year, timed with the jurisdictional inspection so the boiler can be opened, serviced and presented for the certificate in one shutdown.

Pressure vessel and internals

- ☐ **Water-side opened, inspected for scale and corrosion**
Handhole and manway covers pulled, waterside surfaces inspected for scale, pitting and grooving, deposits documented and treatment adequacy assessed. **3 photos required**
- ☐ **Fire-side surfaces cleaned and inspected**
Tubes and passages brushed to bare metal where reachable, soot and scale thickness noted, no cracking or overheating damage at the sheet. **2 photos required**

Controls and safeties

- ☐ **Low-water cutoffs opened, cleaned and tested**
Float or probe cutoffs disassembled, cleaned of mud and scale, float chamber flushed, then proven to trip the burner on falling level. **2 photos required**
- ☐ **Full flame-failure and limit lockout sequence proven**
A simulated fault drives the burner into lockout and it stays out until reset, operating and high-limit pressure controls each tripping at setpoint. **1 photo required**

Certificate inspection

- ☐ **Jurisdictional inspection observed and documented**
The inspector's findings recorded, any required repairs captured with photos, and the certificate outcome logged. The inspector certifies the boiler, not the RTI user. **2 photos required**