

HOT WATER HEAT BOILERS**Rule 27 (R-408.4027)/CSD-1 Required Testing****Boilers Greater Than 400MBH (400,000 BTU/Hr)****And Less Than 12,500MBH (12,500,000 BTU/Hr)****REQUIREMENT FOR COMPLIANCE OF RULE**

Rule 27 requires the owner to ensure that the assembly, maintenance, operation and testing of controls and safety devices shall be conducted in accordance with ASME code CSD-1.

The following minimum requirements for testing of controls and safety devices are:

ITEM	Frequency	Personnel	Remarks
1. burner/combustion controls	annual (1)	service technician	manufacturers Instructions
2. water temperature limit controls	annual (1)	service technician	manufacturers Instructions
3. low water fuel cutoff	annual (1)(3)	service technician	manufacturers Instructions
4. safety/relief valves (high pressure)	annual (1) or (2)	service technician or user/operator	manually with 75% of set pressure on boiler, or tested by manufacturers representative
5. low water fuel cutoff	monthly (2)	user/operator	see note (3) below
6. safety/relief valves (low pressure)	monthly (2)	user/operator	manually with 75% of set pressure on boiler, or tested by Manufacturers representative

Testing shall be conducted in accordance with the manufacturer's instructions.

Personnel who conduct the testing are not required to be licensed under the act. The owner or user shall provide the inspector, at the time of certificate inspection, with evidence showing what tests have been completed. The Inspector may require additional testing if deemed necessary.

Note (1): Proof of testing-a service invoice/report which details the testing that was completed.

Note (2): See the reverse side of this page for an Example Boiler Log.

Note (3): For Hot Water Heating Boilers - the Low Water Fuel Cut-off device may be tested by some other means than a drain test (see log-Note 3).

Informational note: R408.4518 Rule-518 requires low water fuel cutouts be inspected once every inspection cycle (certificate inspection), documentation needed for inspector to verify.

Hot Water Heating Boiler Log
Suggested Outline for Compliance to CSD-1 Requirements
Boiler Log for Low Pressure Hot Water Heating Systems
 (* Signifies Rule27/CSD-1 Required Testing)

	Check Boiler/System Water Level in Expansion Tank Sight glass (*1)	Check Boiler Pressure/Temp. On Gauge (See Note*2)	*Drain /Test Low Water Fuel Cut-Out (See Note *3)	*Manually/Hand Test Boiler Safety/Relief Valve (*4)	Check/Observe Burner Operation (See Note *5)	Comments Or Observations
Jan						
Feb						
Mar						
Apr						
May						
Jun						
Jul						
Aug						
Sep						
Oct						
Nov						
Dec						

Note *1: Not all Hot Water Heating Systems have expansion tanks with water level sight glasses.

Note *2: Normal system pressures between 10-20 psi-Temperature between 140-200 F during heating season.

Note *3: a) Acceptable devices such as ATest & Checks@ may be installed in the connection piping to float type LWCO=s to facilitate the testing by draining.

b) Electronic probes or flow switch type LWCO testing may be modified to an annual test of isolating the boiler and draining it until the LWCO de-energizes the burner.

c) For float type LWCO=s without a device to facilitate drain testing-it is required that the LWCO be flushed out monthly and then annually the boiler must be shutdown, isolated from the system and drained until the LWCO de-energizes the burner.

Note *4: When testing boiler safety/relief valves **Use Caution**-Water Temperatures can be up to 210-230 F.

Note *5: Some burner configurations have a Pre-Purge/Pilot/Main Flame/Post Purge Cycle(s).

*****Always Use Caution When Operating Boiler Safety Devices and Controls*****