

Advanced Boiler (BA) Training Practical Training Activity Checklist
 ST-V2 March 2016

The student should complete this activity under the supervision of a currently licenced operator and bring the completed and signed form with them to the licence assessment. If not completed the assessor cannot complete your licence assessment.

Student Name							
Boiler Site Location							
Boiler Make		Boiler Size		Boiler Type		Reg. #	
Name of Licenced Operator Supervising Activity							
Date(s) Below Conducted							

Boiler Operational Area & Boiler Components		✓	✗
1	Identify and obtain suitable PPE		
2	Identify fire extinguisher in boiler area		
3	Identify first aid kit in boiler area		
4	Identify and check log book – are there any issues identified by previous operators?		
5	Locate and identify external gas isolation valve		
6	Locate and identify eStop switch if fitted		
7	Locate area lighting and verify its working and adequate		
8	Locate and identify main electrical isolation switch		
9	Locate and identify gas or oil burner		
10	Locate and identify coal source, grate and stoker/fluid grate controls, and ash disposal system. (if applicable)		
11	Locate and identify Flame failure device (PE cell)		
12	Locate and identify Damper		
13	Locate and identify Air intake and Forced draft fan		
14	Locate and identify Sight glasses		
15	Locate and identify Safety Valves (PRV)		
16	Locate and identify Pumps		
17	Locate and identify feedwater tank. Is it full and is the heating system turned on?		
18	Locate and identify Feedwater isolation valve		
19	Locate and identify Feedwater non return valve		
20	Locate and identify Feedwater isolation valve on tank		
21	Locate and identify Main Steam Stop valve		
22	Locate and identify Vacuum Breaker valve if fitted		
23	Locate and identify Feedwater level control probes or float switches		
24	Locate and identify feedwater control valve if fitted		
25	Locate and Identify feedwater control valve manual bypass		
26	Locate and identify Mowbray water column and Sequencing Purge Valve if fitted		
27	Locate and identify manual Blow down valve		
28	Locate and identify automatic blow down valve if fitted		

Boiler Operational Area & Boiler Components cont.		✓	✗
29	Locate and identify conductivity probe if fitted		
30	Locate and identify manhole doors		
31	Locate and identify hand hole or mudhole doors if fitted		
32	Locate and identify chemical injection pump and chemical tank		
33	Locate and identify ion exchange tank and brine bath if fitted		
34	Locate and identify blow down vessel and note drain locations		
35	Locate and identify explosion doors if fitted		
36	Locate and identify access doors if fitted		
36	Locate and identify control panel and display if fitted		
38	Locate and identify alarm bell		
39	Locate and identify high/low flame switch if fitted		
40	Locate and identify manual pump operation switch if fitted		
41	Locate and identify alarm reset and mute		
42	Locate and identify flame failure reset switch if separate		
43	Locate and identify any communications devices and test		
44	Locate and identify economiser and observe safety valves if fitted		
45	Locate and identify air preheater if fitted		
46	Locate and identify feedwater heater if fitted		
Preparation for Operation and Start Up			
47	Have you got and are wearing the PPE required by the company?		
48	Have you got permission to start the boiler?		
49	Conduct a visual external examination of the boiler for leaks		
50	Ensure the Main Steam Stop valve closed		
51	Check the fire extinguisher is ok and tested		
52	Turn on all water and gas isolations		
53	Check sight glasses have at least 50% water showing. If not, manually fill.		
54	Complete a quick test. Did the water return smartly?		
Starting the Boiler			
55	Turn on power		
56	Initiate start sequence or light fuel if not oil or gas		
57	Observe pre-purge if oil or gas fired		
58	Observe pilot light operation		
59	Observe main burner ignition on low flame		
60	Observe and view flame is correct		
61	Purge manifold or header if required		
62	Observe chemical injection is working and top up using correct PPE if required		
63	Observe salt bath is full of salt and water		
64	Once boiler has 100kpa operate blowdown manually for 15 seconds and observe sight glasses. Restore a safe water level.		
65	Whilst boiler is getting to working pressure check and test flame failure device and reset alarm. Observe purge cycle		

66	Whilst getting to working pressure test low water alarm using Mowbray if fitted, or manual blow down. Restore water level and rest alarm		
67	Manually lift test handles on safety valves, ensure that the are free and blow steam, and reseal		
68	Conduct a quick test on each sight glass		
69	Conduct a full sight glass test as per training on each sight glass		
70	Once working pressure is achieved obtain permission to release steam into plant		
71	Record start up events in log book		
72	Were you happy with the above start process? Were there any problems?		

Boiler Monitoring

73	Check logbook		
74	Visually check boiler		
75	Quick test sight glasses and check water levels		
76	Check chemicals		
77	Check feedwater tank temperature		
78	Check pressure		
79	Check flue gas temperature – Is it within the correct parameters.		
80	Check automatic blow down. Is it working? Did you observe this?		
81	Manually blow down as required.		
82	Test alarms if scheduled and observe purge cycle		
83	Test safety valves manually if required		
84	Record monitoring checks in logbook		
85	Were there any issues or problems?		

Boiler Shutdown

86	Obtain permission to shutdown boiler from plant.		
87	Shut MSS		
88	Check water levels are appropriate – 50 to 65%		
89	Turn off burner and observe it going to low flame		
90	Allow boiler to cool down and then shut off burner		
91	Observe post purge cycle		
92	Shut off power, gas, water and supply from feed water tank if required.		
93	Record in logbook		
94	Were there any issues or problems?		