



Combustion Controls Testing List- Boilers Multi Burner Gas & Oil Initial Test

Facility Name:			
Address:			
Equipment Name/Type/Number:			
Btu/hr. Input Rating:			
Main Burner Fuel Type:			
	Item Tested	Tested OK	Corrected
1a	Leak Test Upstream Main Gas Shutoff Valve: Bubbles/Min.		
1b	Upstream Main Gas Shutoff Valve Proven Closed During Purge:		
2a	Leak Test Downstream Main Gas Shutoff Valve: Bubbles/Min.		
2b	Downstream Main Gas Shutoff Valve Proven Closed During Purge:		
3a	Leak Test Upstream Igniter Header Gas Shutoff Valve: Bubbles/Min.		
3b	Upstream Igniter Header Gas Shutoff Valve Proven Closed During Purge:		
4a	Leak Test Downstream Igniter Header Gas Shutoff Valve: Bubbles/Min.		
4b	Downstream Igniter Header Gas Shutoff Valve Proven Closed During Purge:		
5a	Leak Test Burner 1 Gas Shutoff Valve: Bubbles/Min.		
5b	Burner 1 Gas Shutoff Valve Proven Closed During Purge:		
6a	Leak Test Burner 2 Gas Shutoff Valve: Bubbles/Min.		
6b	Burner 2 Gas Shutoff Valve Proven Closed During Purge:		
7a	Leak Test Burner 3 Gas Shutoff Valve: Bubbles/Min.		
7b	Burner 3 Gas Shutoff Valve Proven Closed During Purge:		
8a	Leak Test Burner 4 Gas Shutoff Valve: Bubbles/Min.		
8b	Burner 4 Gas Shutoff Valve Proven Closed During Purge:		

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	Item Tested	Tested OK	Corrected
9a	Leak Test Igniter 1 Gas Shutoff Valve: Bubbles/Min.		
9b	Burner 1 Igniter Gas Shutoff Valve Proven Closed During Purge:		
10a	Leak Test Igniter 2 Gas Shutoff Valve: Bubbles/Min.		
10b	Burner 2 Igniter Gas Shutoff Valve Proven Closed During Purge:		
11a	Leak Test Igniter 3 Pilot Gas Shutoff Valve: Bubbles/Min.		
11b	Burner 3 Igniter Gas Shutoff Valve Proven Closed During Purge:		
12a	Leak Test Igniter 4 Pilot Gas Shutoff Valve: Bubbles/Min.		
12b	Burner 4 Igniter Gas Shutoff Valve Proven Closed During Purge:		
13	High Main Gas Pressure Switch: Design Setting: Actual Setting: Left Setting At:		
14	High Igniter Gas Pressure Switch: Design Setting: Actual Setting: Left Setting At:		
15	Low Main Gas Pressure Switch: Design Setting: Actual Setting: Left Setting At:		
16	Low Igniter Gas Pressure Switch: Design Setting: Actual Setting: Left Setting At:		
17	Low Main Fuel Oil Pressure Interlock: Design Setting: Actual Setting: Left Setting At:		
18	Low Igniter Fuel Oil Pressure Interlock: Design Setting: Actual Setting: Left Setting At:		

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	Item Tested	Tested OK	Corrected
19	Low fuel Oil Temperature Interlock (Heated Oil): Design Setting: Actual Setting: Left Setting At:		
20	Low Main Fuel Oil Burner Atomizing Air/Steam Interlock: Design Setting: Actual Setting: Left Setting At:		
21	Low igniter fuel oil burner atomizing air/steam interlock: Design Setting: Actual Setting: Left Setting At:		
22	Low Combustion Air Flow/Pressure Switch: Design Setting: Actual Setting: Left Setting At:		
23	Loss of All Forced Draft Fans Activates Master Fuel Trip:		
24	Loss of all induced draft fans activates master fuel trip:		
25	Purge Timer: Design Setting: Actual Setting: Left Setting At:		
26	Proof of Air Damper Position for Purge:		
27	Low Fire Start Position Proven Prior to Burner Startup:		
28	Igniter Burner Trial for Ignition Period: Design Setting Seconds: Actual Setting Seconds:		
29	Main Burner Trial For Ignition Period: Design Setting Seconds: Actual Setting Seconds:		
30a	Flame Failure Detection Igniter 1 (closes individual igniter valve & de-energizes spark):		
30b	Flame Failure Detection Igniter 2:		
30c	Flame Failure Detection Igniter 3:		
30d	Flame Failure Detection Igniter 4:		
31a	Flame Failure Detection Main Burner 1:		
31b	Flame Failure Detection Main Burner 2:		
31c	Flame Failure Detection Main Burner 3:		
31d	Flame Failure Detection Main Burner 4:		

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	Item Tested	Tested OK	Corrected
32	Loss Of All Flame In Furnace (Activates Master Fuel Trip):		
33	All Fuel Inputs Shut Off (Activates Master Fuel Trip):		
34a	Low Drum Water Level Alarm (Drum Type Boilers): Design Setting: Actual Setting: Left Setting At:		
34b	Low Drum Water Level Interlock (Drum Type Boilers): Design Setting: Actual Setting: Left Setting At:		
35	Low waterwall flow (Once-through boilers): Design Setting: Actual Setting: Left Setting At:		
36	High Water Temperature Interlock: Design Setting: Actual Setting: Left Setting At:		
37	High Steam Pressure Interlock: Design Setting: Actual Setting: Left Setting At:		
38	Furnace High Pressure Interlock: Design Setting: Actual Setting: Left Setting At:		
39	High Negative Furnace Pressure Interlock: Design Setting: Actual Setting: Left Setting At:		
40	Activation of E-Stop:		
41	All Safety Interlocks are Present and Have Not Been Bypassed or Rendered Ineffective:		
42	Calibration Of Indicating & Recording Instruments		

<u>Any Additional Interlocks should be added to the form</u>			

Inspected And Tested By:

Date:

Testing Witnessed By:

Date:

Reference & Resources

NFPA 85: Boiler and Combustion System Hazards Code

For further information, contact your local [AIG Property Risk Engineer](#).

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