

BOILER PLANT OPTIMIZATION SCORE CARD



**WATERLOO
MANUFACTURING**
COMPLETE BOILER ROOM SOLUTIONS

Company:	Date:
Contact Person:	Location:
Title:	Phone:

Please check the box where applicable for each task.

Task	Already Have	Outdated	Do Not Have	Not Applicable	Action Required	*Responsible	Describe Action and Owner
Document Current State of Boiler Plant							
Updated Boiler Plant Process and Instrumentation Diagram						E	
Updated Boiler Plant Standard Operating Procedures (SOPs)						E	
Boiler Room Valve & Instrument Tags						E	
Equipment List & Specifications						E	
Service Providers: Contact Info						O	
Daily Inspections/Checklist and Regular Log Book Entries						O	
Chemical Log by Service Provider - Weekly or Biweekly						V	
Chemical Log Test: Shift / Daily						O	
Total:							
Operation & Maintenance							
Comprehensive Preventative Program Including Weekly, Monthly and Annual Tasks						O	
Record of Boiler & Equipment Maintenance History						O, M	
Quarterly or Semi-Annual Combustion Tuning						O, V	
Safety Relief Valve Test / Replacement Schedule						O, V	
Pressure Vessel Non-Destructive Tests: Deaerator Tank, High-Pressure Receiver, Blowdown Tank						O, V	
Total:							
Prepare Operational Recovery							
Spare Parts List - Stock Items in Warehouse						M	
Spare Parts List - Long Lead Time Spare - Inventory						M, W	
Emergency Spares List						M	
"Boiler Down" - Contingency for Inoperable Boiler (Unplanned)						P, O	
Emergency Response Plan							
Total:							
Opportunities for Improvement							
Boiler & Boiler Plant Efficiency						E, M, O	
Condensate Recovery						M, O	
Flash Steam Venting						O	
Steam Trap Program						O	
Metering Including Steam, Fuel, Feedwater and Makeup Water						O	
Total:							
Educational Training							
Participation in Continuous Boiler Plant Education						All	
Total:							
Grand Total:							

*Responsible: E = Engineering, M = Maintenance, O = Operator, V = Vendor, W = Warehouse, P = Production

Table 1: Recommended Basic Boiler Inspection Schedule (Steam and Hot Water)

Daily *	Weekly	Monthly	Semi-Annually	Annually
Check water level	Check for tight closing of fuel valves	Inspect burner	Clean low water cutoff(s)	Clean fireside surfaces
Blowdown boiler	Check fuel and air linkage	Analyze combustion	Check oil preheater	Clean breeching
Blowdown water column	Check indicating lights and alarms	Check cams	Inspect refractory	Clean waterside surfaces
Check combustion visually	Check operating and limit controls	Inspect for flue gas leaks	Clean oil pump strainer and filter	Check oil storage tanks
Treat water according to the established program	Check safety and interlock controls	Inspect for hot spots	Clean air cleaner and air/oil separator	Check fluid levels on hydraulic valves
Record boiler operating pressure/temperature.	Check low water cutoff(s) operation	Review boiler blowdown procedures	Check pump coupling alignment	Check gauge glass
Record feedwater pressure/ temperature	Check for leaks, noise, vibration, unusual conditions, etc.	Check combustion air supply	Reset combustion	Remove and recondition safety valves
Record flue gas temperature	Check operation of all motors	Check all filter elements	Inspect mercury switches	Check oil pumps
Record oil pressure and temperature	Check general burner operation	Check fuel systems		Check boiler feed pumps
Record gas pressure	Check lubricating oil levels	Check belt drives		Check condensate receivers
Record atomizing pressure	Check flame scanner assembly	Check lubrication requirements		Check chemical feed systems
Check general boiler/ burner operation	Check packing glands			Tighten all electrical terminals
Record boiler water supply and return temperature	Check gauge glass			Check deaerator/ boiler feed system
Record makeup water usage				Check Linkages
Check operation of auxiliary equipment				

* Daily items may be done more than once per day.



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