OSBI Boiler Inspection Worksheet

Construction Documents	IMC – 106.3.1	
Label Information	IMC – 301.6	
General – Manufacturers installation instructions shall be available	IMC – 304.1	
Appliances in rooms – Passageway - >= 36 inches wide and >= 80 inches high	IMC – 306.2	
Load Calculations	IMC – 312.1	
Opening Location – Outside exhaust and intake	IMC – 401.5	
Intake Openings – Mechanical and Gravity outside air	IMC 401.51.1	
Outdoor Opening Protection – Exhaust >= ¼ inch and not > ½ inch Intake >= ¼ inch and not > 1 inch	IMC 401.6	
COMBUSTION AIR – Dampered openings interlocked with the firing cycle. Manually operated Dampers shall not be installed. Other than gas-fired appliances	1996 NFPA 54 Fuel Gas Code Section 709.2 IMC – Chapter 7	
Flue Lining – Masonry chimneys shall be lined	IMC – 801.16	
Connectors – Shall not be smaller than flue collar Medium heat - >1,000 <2,000 F Low heat - <1,000 F Pitch – ¼ inch vertical (2% slope) Clearance – oil fired >=18 inches	IMC – 803 Table 803.9(2) Table 803.9(1)	
Chapter 10 – Section 1001 State of CT – Bureau of Boilers Still have to inspect and check	IMC – 1001.1 Exception #7	
Standards – Oil Fired	IMC – 1004.1 UL 726	
Working Clearances – Passageways shall have >= 18 inches unobstructed width.	IMC – 1004.3	

OSBI Boiler Inspection Worksheet

MANY MANUFACTURERS REQUIRE GREATER CLEARANCES WHICH MUST BE FOLLOWED	NOTE – ***MANUFACTURERS SOMETIMES ARE RECOMMENDATIONS AND WE DON'T ENFORCE RECOMMENDATIONS***	
Operating Adjustments and Instructions – Shall be furnished by the installer	IMC – 1004.7	
Valves – Separate for supply and return – Exception – not required for single Low pressure steam boiler system	IMC – 1005.1	
Potable Water Supply – IPC provides protection criteria	IMC – 1005.2	
Safety Valves – Shall be protected (steam)	IMC – 1006.1	
Safety Relief Valves – Shall be protected (hot water boilers)	IMC – 1006.2	
Pressure Relief Valves – Shall be protected (pressure vessels)	IMC – 1006.3	
Safety and Pressure Relief Valve Installation – ***Manufacturers requirements must Be met!!!*** Directly installed No valves on located on either side Discharge must be by gravity (***NOTE – Boiler Regulations require valve to be in a vertical position)***	IMC – 1006.5	
Safety and relief valve discharge – Rigid pipe approved for temperature Shall not discharge so as to be a hazard Must be same diameter as outlet High pressure – outside of building	IMC – 1006.6	

OSBI Boiler Inspection Worksheet

Drainage system – must meet IPC		
Boiler Safety Devices – ***Manufacturers requirements must be met!!!*** State of CT – Boiler Regulations	IMC – 1006.7 Boiler Regulations	
Low-Water Cutoff – All boilers required Boiler regulations – not required on all Hot water heating boilers	IMC – 1007 Regulation 29-232-100	
Hot water boiler expansion tank – Tanks rated for system pressure If specs ask for ASME must be ASME	IMC 1009.1	
Tests – Required upon completion of assembly and installation ***SEE MANUFACTURERS INSTALLATION INSTRUCTIONS***	IMC – 1011.1	
Pipe Fittings – Shall be approved – Table 1202.5	IMC – 1202.5	
Valves – Compatible with piping and rated for the temperatures and pressure	IMC – 1202.6	
Joints and Connections – Approved type and tight for the pressure of the hydronic system Different materials – joints shall be made with approved adapter fittings.	IMC – 1203 IMC – 1203.1.1	
Pipe Insulation Comply with IMC and 2009 IECC Replacement of boiler only new piping to be insulated to 2009 IECC	IMC – 1204.1	

OSBI Boiler Inspection Worksheet

Valves – Heat exchangers - supply and return Pressure vessels – shut-offs on connection to any pressure vessel Reducing Valves – both sides Equipment and appliances –	 IMC – 1205.1.1 IMC – 1205.1.3 IMC – 1205.1.4 IMC - 1205.1.5	
Piping Installation – Prohibited tee applications System Drain – must be designed and installed to permit drainage Potable water – IPC Clearance to combustibles Steam piping pitch Piping support	IMC - 1206 IMC – 1206.1.1 IMC – 1206.2 IMC – 1206.3 IMC – 1206.5 IMC – 1206.8 IMC – 1206.10	
Additional items to inspect – Chimney and flue Fuel supply (including tanks) Specific Electrical requirements Burner Installations Fuel Gas specific requirements – (currently the IMC does not Include gas fired equipment)		

State of CT - Bureau of Boilers Worksheet

Requirement	CT Regs	ASME	NBIC (1998)	csd-1 (1998)
HP Overall	29-232-50 to 29-232-68 29-232-1 (ii) 29-232-1 (cc)	Section I	RB-3110 (a) RB-3120 (a)	definitions
HP Steam				
Operating Pressure	29-232-50 (a) Sec I pg-67 4.3.2.1		RB-3163 (F.1)	CW-310 (b)
2nd Press	Sec I pg 67 4.3.2-3		RB-3163 (F.1)	CW-310 (c)
LWCO	29.23.39		RB-3163 (A,B,D,E)	CW-140 (a,d,c)
2nd LWCO	------		------	CW-140 (a,b,c)
Safety Valve	29-232-58 Section I - Pg-67		RB-3511 RB-3520 RB-3430 RB-3540 RB-3550 RB-3560 RB-3570	CW-510
Blow Off	29-232-41 PG-59.3			------
Supports	29-232-42	PFT-42(SEC-I)	RB-3159(D)	
PRV	29.232-43			
Door Latches	29-232-45	PWT 14 PWT 15 PFT-42	-------	-------
Clearances	29-232-46			
Ladders-Runways	29-232-52			
Exits	29-232-53			
Boiler Feed	29-232-59	PG -58 PG-59 PG-61	RB-3600	CW-100 CW-120 CW-140
Fusible Plugs	29-232-60	Sec-1-A19-A21 PWT-9 Fig-A-19	Spec Note	
Water Columns	29-232-61	PG-60.2	RB-3120 RB-3159	CW-120-C

State of CT - Bureau of Boilers Worksheet

Requirement	CT Regs	ASME	NBIC (1998)	csd-1 (1998)
Gauge Glass	29-232-61	PG-60.1-.7	RB-3161	CW-120(D)
Gauge cocks	29-232-61	PG 60.4*	RB 3161	
Steam Gauges	29-232-62	PG-60.6	RB3161	
Stop Valves	29-232-63	PG-60.3.7	RB-2020	
Blow off piping	29-232-64	PG-42 PG-59		
Comb. Controls			RB-3163	Part CF
Minature Boilers	29-232-71 - 80			
General		PMB-5		
Safety Valve	29-232-73	PMB-15		
Gage Glass	29-232-74	PMB-13		CW-120 (d)
Feeding System	29-232-75	PMB-11		
Blow off piping	29-232-76	PMB-12		
Steam Gauges	29-232-77			
Stop Valves	29-232-78	PMB-16		
Wash Out		PMB-10		
Electric Boilers	29-232-44	IV- HG-603 (c & d) PEB-1 through 19 IV- HG-640 (a) IV-HG 101.2		CF-930 CG-110
Low Pressure Steam Boilers	29-232-81 through 101			
Returns	29-232-83	IV - HG 703.2		
LWCO	29-232-96	IV - HG 606 IV - HG 607	RB-3163	CW-120
Pressure Control	29-232-95	IV - HG 605	RB-3163	CW-620 CW-310
Secondary High	29-232-95	IV - HG 605	RB-3163	CW-620 CW-310
Pressure Gages	29-232-93	IV - HG 602	RB-3161	
Water cloumn	29-232-94	IV -HG 602 IV-HG-603 IV-HG-604 IV-HG705	RB-3159 RB-3120	CW-120
Saftey Valves	29-232-90 29-232-92	IV-HG-400-405	RB.3500 Appendix 4 Appendix5	CW-510
Stop Valves		IV-HG 710		

State of CT - Bureau of Boilers Worksheet

Requirement	CT Regs	ASME	NBIC (1998)	csd-1 (1998)
Low Pressure Hot Water Heating Boilers	29-232-99	HG-530 through 34	RB-3163-f2	CW-410
Secondary High	29.232.99	HG-613	RB 3163-f2	CW-400
LWCO	29-232-100	HG-604(a) HG-606 HG-614	RB-3163(e)	CW-110 CW-130
Gauge Press/Temp	29-232-97 29-232-98	IV-HG300(b) IV-HG 611 IV-HG621 IV-HG705	RB-3161	
Press relief valves	29-232-91 29-232-92	IV-HG 400 IV-HG401	RB-3500	CW-510
Stop Valves		IV-HG 710		
Discharge piping	29-232-92(e)if	IV-HG 701.6 shall	RB-3540	
Storage Tanks		IV-HG-708		CW-520
Water Heaters / HLW Boilers	29-231-5	IV-HG-700 IV-HLW	RB-3300	
Electrical requirements	29-232-102	HG-630-HG632 HLW-704		CE-100
Flame safegaurds	29-232-103			CF-100-900
Thermometer		HLW-820		
Shutdown switches	29-232-104	HG-634 HG-631-633		CE-110 CE-120
Recommended Guidelines for the care of heating boilers	29-232-114			
Recommended guidelines for the care of power boilers	29-232-115			