RIELLO

Energy For Life

ARRAY BOILER SERVICE REPORT

Report Approved by(Print):	Signature:	Date (DD/MM/YY): / /
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GENERAL INFORMATION

TECHNICIAN:		DATE:			
JOB NAME:					
ADDRESS:					
CITY:		State/Prov.		Zip/Postal:	

NATURE OF PROBLEM

PROBLEM REPORTED:					
SYSTEM DOWN:					
MAKE:		MODEL:		SERIAL NO.	
CONTACT:		GAS TYPE:		DATE:	

SERVICE DETAILS

SERVICES RENDERED:

TECHNICIAN REMARKS:

WORK TO BE COMPLETED:

Service Hours	

- Wiring is connected correctly and tight: ☐
- Burner safeties operate properly: ☐
- Boiler safeties operate properly: ☐
- Gas valve operates properly: ☐
- Gas train has been checked for leaks: ☐
- LGPS Setting:
- HGPS Setting:
- Managing/Dependant:
- Application:
- System set point:
- System sensor is mounted in secondary loop: ☐
- The distance between the service regulator and boiler is greater than 10': ☐
- Boiler static inlet pressure (in w.c):
- Expansion tank installed: ☐
- Expansion tank pressure (PSI):
- Glycol %

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Boiler Cascade Setup

Boiler #	Parameter	Desciption	Units	Default Value	Final Value
1	73	Boiler address		Managing	
2-8	73	Boiler address		Dep 2-8	
ALL	157	Emergency setpoint	Deg. F	158	
1	162	Hyst. down start boiler	Deg. F	9	
1	163	Hyst. up stop boiler	Deg. F	3.6	
1	164	Hyst. down quickstart	Deg. F	18	
1	165	Hyst. up quickstop	Deg. F	7.2	
1	166	Hyst. up stopall	Deg. F	14.4	
1	167	Number of boilers		1	
1	174	Boiler rotation	Days	5	
1	175	First boiler to start		1	

Module Cascade Setup

	Parameter	Description	Units	Default Value	Final Value
	72	Permanent emergency mode		Yes	
	74	Emergency setpoint	Deg. F	158	
	77	Hyst. down start module	Deg. F		
	78	Hyst. up stop module	Deg. F	7.2	
	84	Module rotation	Deg. F	5 days	
	144	Hyst. down quickstart	Deg. F	18	
	145	Hyst. up quickstop	Deg. F	7.2	
	146	Hyst. up stopall	Deg. F	14.4	
	149	First module to start		1	

Boiler Parmeters Setup

	Parameter	Description	Units	Default Value	Final Value
	1	CH Mode		0	
	35	DHW Mode		0	
	127	Programmable output 3 (set to 10 if OAD used)		0	

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Overshoot/short cycling parameters:

If the boiler is overshooting setpoint / short cycling, We recommend the following parameter changes.

Overshoot/Short Cycling Parameter

Cascade Settings	Parameter	Description	Units	Recommended Value	Final Value
Module	79	Max. setpoint offset down	Deg. F	10	
Module	80	Max. setpoint offset up	Deg. F	10	
Module	87	PID I		250	
Module	150	PID slewrate up		5	
Module	151	PID slewrate down		5	
Boiler	169	Max setpoint offset down	Deg. F	15	
Boiler	170	Max setpoint offset up	Deg. F	15	
Boiler	177	PID I		500	
Boiler	178	PID slewrate up		5	
Boiler	179	PID slewrate down		5	

Low temperature system parameters (less than 100 deg f):

Please note for low temperature applications it is recommended to use the following parameters below.

Parameter 7 and 112 will need to be adjusted at each module.

Low Temperature Parameter Setup

Settings Level	Parameter	Description	Units	Recommended Value	Final Value
Param.	7	CH hyst. up	Deg. F	5	
Param.	112	CH hyst. down	Deg. F	5	
Module	79	Max. setpoint offset down	Deg. F	10	
Module	80	Max. setpoint offset up	Deg. F	10	
Module	87	PID I		250	
Module	150	PID slewrate up		5	
Module	151	Casc PID slewrate down		5	
Boiler	169	Max. setpoint offset down	Deg. F	15	
Boiler	170	Max. setpoint offset up	Deg. F	15	
Boiler	177	PID I		500	
Boiler	178	PID slewrate up		5	
Boiler	179	PID slewrate down		5	

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	Burner	Gas		Fan Speed (RPM)	Chamber/Flue					Efficiency			Water			Flame Sig. (µA)
	Load Points	Gas Flow (SCFH)	Dynamic Inlet Gas (in w.c.)		Stack Draft (in w.c.)	O_2 (%)	CO (ppm)	NO_x (ppm)	CO_2 (%)	Ambient Temp (°F)	Flue Gas Temp (°F)	Eff. (%)	Water Flow (GPM)	Temp In (°F)	Temp Out (°F)	
Array 1000 MOD 1	Ign.															
	Low															
	High															
MOD 2	Ign.															
	Low															
	High															
Array 1500 MOD 3	Ign.															
	Low															
	High															
Array 2000 MOD 4	Ign.															
	Low															
	High															
Array 3000 MOD 5	Ign.															
	Low															
	High															
MOD 6	Ign.															
	Low															
	High															
Array 4000 MOD 7	Ign.															
	Low															
	High															
MOD 8	Ign.															
	Low															
	High															

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