

**ADDENDUM #1 - RFP#15-059-34-HVAC PSA NON-HIGHWAY FACILITIES**

1. **Parts:** Are there any parts (filters, belts, etc.) that are included in the contract? If so, is there a list that includes quantities, sizes and part numbers?

- Filters and belts to be billed above and beyond the service agreement. This includes roof-top units, air-handers and furnaces. Must be approved prior to work being performed.

2. **Vibration analysis:** Can you provide a list of motors that require vibration analysis, including the following information:

A. Type of unit being served (chiller, pump, air handling unit, etc.).

B. Quantity.

C. Location of unit (courthouse, library, etc.).

• Air handler	Qty. 1	Courthouse
• Air handler	Qty. 2	Courthouse Annex
• Air handler	Qty. 1	Ella Court
• Air handler	Qty. 2	Health & Human Service
• Roof-top Unit	Qty. 2	Stephenson Public Lib.
• Air handler	Qty. 1	Stephenson Public Lib.
• Air handler	Qty. 5	Law Enforcement Center
• Chiller	Qty. 2	Law Enforcement Center

Air handler supply and return fans to be analyzed.

3. **Air compressors:** Can you identify which air compressors are included within the scope of the maintenance?

- All system air compressors are required to be included. One operational and one comprehensive service per year.

4. **Scope of maintenance:** Can you define "Operational" versus "Comprehensive" scopes of maintenance?

Also, can a description of the current maintenance tasks be provided? This will be used to define what tasks are to be done by the contractor and what tasks are being done by in-house staff.

- See Johnson Controls list of Tasking List for minimal items covered. Vendors responsible to perform all work on equipment to ensure maximum safe operating condition.

5. **JC Metasys and Automated Logic DDC systems:**

A. Will passwords be provided to allow programmers to access the system?

B. Do the Metasys and Automated Logic control systems require planned software upgrades or program patches?

- Passwords will be provided.
- Both Metasys and Automated Logic planned and unplanned upgrades and program patches to be performed as released.

6. **Coil cleaning:** Who is responsible for cleaning the chiller coils & condensing unit coils; the contractor or the in-house maintenance staff?

- Marinette County to provide all coil cleaning at non-Highway facilities.

7. Skills required

- All work must be performed by Journeyman technicians.

8. Labor rates

- Provide labor rates and other costs associated with T&M work.

9. **Steam traps:** Is there a list of the steam traps in the court house? Note: A recent steam trap survey report or a Focus on Energy steam trap incentive application should have the needed information.

- See Courthouse Steam Trap Survey attachment.

10. **Background checks:** Are background checks required for access to the Sherriff's department?

- Yes. Background checks required for all facilities.

11. Address correction

Ella Court Building – 1925 Ella Court, Marinette, WI 54143

12. Option 1

- Provide option to perform operational and comprehensive service on the following:
  - LEC Heated Storage – 2161 University Drive, Marinette, WI 54143
    - 2 unit heaters
    - 1 CO/NO<sub>x</sub> monitor calibration
  - LEC Sally Port – 2161 University Drive, Marinette, WI 54143
    - 1 unit heater
    - 1 CO/NO<sub>x</sub> monitor calibration
  - Courthouse Sally Port – 1926 Hall Avenue, Marinette, WI 54143
    - 2 unit heaters

## Steam Trap Survey

	Trap ID Tag Number	Trap Location Description	Manufacturer	Model	Nominal Pressure	Trap Type	Trap Size	Trap Condition (choose one)
1	1-16	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
2	1-17	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
3	1-18	Room C121	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
4	1-19	Room C121	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
5	1-20	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
6	1-21	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
7	1-22	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
8	1-23	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
9	1-24	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
10	1-25	Room C121	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
11	1-26	Register of Deeds	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
12	1-27	Register of Deeds	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
13	1-28	Register of Deeds	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
14	1-29	Register of Deeds	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
15	1-30	Room C129	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
16	1-31	Room C129(Facing Hall Avenue)	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
17	1-31A	Room C129 (Facing Citgo)	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
18	1-32	Education Specialist	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
19	1-33	Wildlife Damage	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
20	1-34	Main Entrance Courthouse-East	Trane	B-1 Vertical	5	Thermostatic	1/2	Functioning Properly
21	1-35	Main Entrance Courthouse-West	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
22	1-36	East Entrance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
23	1-37	West Entrance	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
24	1-39	1st Floor Hall by Water Fountain	B&J	B-1	5	Thermostatic	1/2	Functioning Properly
25	1-40	Bathroom (facing Citgo)	B&J	B-1	5	Thermostatic	1/2	Functioning Properly
26	2-38	Child Support-Betty	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
27	2-39	Child Support-Tracy	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
28	2-40	Child Support-Gabriel, South	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
29	2-41	Child Support-Gabriel, West	Trane	B-1	5	Thermostatic	1/2	Could Not Test
30	2-42	Child Support-Water Cooler	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
31	2-43	Room C210 R.O.P.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
32	2-44	Room C210 R.O.P.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
33	2-45	Room C210 R.O.P.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
34	2-46	Room C210 R.O.P.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
35	2-47	Room C210 C.O.C.	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam

## Steam Trap Survey

	Trap ID Tag Number	Trap Location Description	Manufacturer	Model	Nominal Pressure	Trap Type	Trap Size	Trap Condition (choose one)
36	2-48	Room C210 C.O.C.	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
37	2-49	Room C205 C.O.C.	Trane	B-3	5	Thermostatic	3/4	Functioning Properly
38	2-50	Room C205 C.O.C.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
39	2-51	Room C205 C.O.C.	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
40	2-52	Room C205 C.O.C.	Trane	B-3	5	Thermostatic	3/4	Functioning Properly
41	2-53	Room C205 C.O.C.	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
42	2-54	C-223- Mary's Office	Trane	B-3	5	Thermostatic	3/4	Functioning Properly
43	2-55	C-223 -Alan's Office	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
44	2-56	C-223 -Kent's Office	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
45	2-57	C-223 -DeSheg's Office	Trane	B-3	5	Thermostatic	3/4	Functioning Properly
46	2-58	C-223 -DA's Conference Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
47	2-59	C-223	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
48	2-60	C-223 -Hallway	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
49	3-60	C-325	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
50	3-61	C-325	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
51	3-62	C-325	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
52	3-63	C-325	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
53	3-64	C-325	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
54	3-65	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
55	3-66	By Women's Bathroom	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
56	3-67	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
57	3-68	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
58	3-69	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
59	3-70	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
60	3-71	Finance	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
61	3-72	C-314	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
62	3-73	C-321	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
63	3-74	C-314	Trane	B-3	5	Thermostatic	3/4	Functioning Properly
64	3-75	C-309-Board Room	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
65	3-76	C-309-Board Room	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
66	3-77	C-309-Board Room	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
67	3-78	C-309-Board Room	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
68	3-79	C-304 Conference Room	Trane	B-1	5	Thermostatic	3/4	Functioning Properly
69	3-80	C-304 Conference Room-3rd Floor	Trane	B-1	5	Thermostatic	1/2	Could Not Test
70	3-81	C-304 Nutrition Ed	Trane	B-1	5	Thermostatic	1/2	Functioning Properly

## Steam Trap Survey

	Trap ID Tag Number	Trap Location Description	Manufacturer	Model	Nominal Pressure	Trap Type	Trap Size	Trap Condition (choose one)
71	3-82	3rd Floor Women's Restroom	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
72	3-100	Above 3rd Floor Ceiling: End of Hallway Main	B&J	F&T-44	5	F&T	3/4	Could Not Test
73	3-101	West End Hallway	B&J	T-41	5	F&T	3/4	Could Not Test
74	3-102	East End Hallway	Trane	55AL	5	F&T	3/4	Functioning Properly
75	3-103	Northwest End of Main	B&J	T-41	5	F&T	3/4	Failed, Leaking Steam
76	3-104	SW EOM	B&J	FT-2015-3	5	F&T	3/4	Functioning Properly
77	4-82	Printing	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
78	4-83	Printing	B&J	122	5	Thermostatic	1/2	Functioning Properly
79	4-84	4th Floor Hall	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
80	401	Records Room Clerk of Accounting	Trane	B-1	5	Thermostatic	1/2	Could Not Test
81	402	Records Room Clerk of Accounting	Trane	B-1	5	Thermostatic	1/2	Could Not Test
82	403	Records Room Clerk of Accounting	Trane	B-1	5	Thermostatic	1/2	Could Not Test
83	404	Records Room Clerk of Accounting	Trane	B-1	5	Thermostatic	1/2	Could Not Test
84	405	Records Room Clerk of Accounting	Trane	B-3	5	Thermostatic	3/4	Could Not Test
85	406	Records Room Clerk of Accounting	Trane	B-3	5	Thermostatic	3/4	Could Not Test
86	407	Records Room Clerk of Accounting	Trane	B-1	5	Thermostatic	1/2	Could Not Test
87	408	Radio Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
88	409	Extension Office Storage Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
89	410	Print Shop Storage Envelope Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
90	411	Print Shop Storage to Cellcom Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
91	412	Cellcom Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
92	413	Cellcom Room	Trane	B-1	5	Thermostatic	1/2	Could Not Test
93	414	Women's Center Cell	Trane	B-1	5	Thermostatic	1/2	Could Not Test
94	415	AHU	B&J	FT153	5	F&T	3/4	Functioning Properly
95	416	AHU	B&J	FT153	5	F&T	3/4	Functioning Properly
96	417	AHU Room Unit Heater	B&J	FT153	5	F&T	3/4	Could Not Test
97	B-3	Behind Water Heater	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
98	B-4	Key Room Ceiling	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
99	B-5	Room Behind Women's Restroom	B&J	FT 41	5	F&T	3/4	Functioning Properly
100	B-6	Above Boiler Room AHU EOM	Trane	B-1	5	Thermostatic without cap	1/2	Failed, Leaking Steam
101	B-7	Generator Room Ceiling-EOM	Trane	B-1	5	Thermostatic without cap	1/2	Failed, Leaking Steam
102	B-9	Boiler Room AHU	Sarco		5	F&T	3/4	Could Not Test
103	B-10	Boiler Room-From Ella Court	Barnes & Jones	FT 15	5	F&T	3/4	Functioning Properly
104	B-11	Boiler Room	B&J	FT 2125-3	5	F&T	3/4	Functioning Properly
105	B-12	Boiler Room	Hoffman	55	5	F&T	1 1/2	Functioning Properly
106	G-1	Ground Level Computer Services-Basement	Trane	B-1 Vertical	5	Thermostatic	1/2	Could Not Test
107	G-2	Ground Level Computer Services-Basement	Trane	B-1 Vertical	5	Thermostatic	1/2	Could Not Test
108	G-3	Ground Level Computer Services	Trane	B-1 Vertical	5	Thermostatic	1/2	Failed, Leaking Steam
109	G-4	Ground Level Computer Services	Sterling	122 C513-128 7100	5	Thermostatic F&T	1/2	Functioning Properly

## Steam Trap Survey

	Trap ID Tag Number	Trap Location Description	Manufacturer	Model	Nominal Pressure	Trap Type	Trap Size	Trap Condition (choose one)
110	G-5	Veterans Service Office	Trane	B-1 Vertical	5	Thermostatic	1/2	Functioning Properly
111	G-6	Services-Vets	Trane	B-1 Vertical	5	Thermostatic	1/2	Could Not Test
112	G-7	Veterans Service-Waiting Room	Trane	B-1 Vertical	5	Thermostatic	1/2	Functioning Properly
113	G-8	JS-2	Trane	B-1 Vertical	5	Thermostatic	1/2	Functioning Properly
114	G-13	Register of Deeds File Room	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
115	G-14	Coroner	Trane	B-1 Vertical	5	Thermostatic	1/2	Could Not Test
116	G-15	Law Library Room C47	B&J	4270	5	Thermostatic	1/2	Functioning Properly
117	T-1	Tunnel	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
118	T-2	Tunnel	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
119	T-3	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
120	T-4	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
121	T-5	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
122	T-6	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
123	T-7	Tunnel	Trane	B-1	5	B&J 122	1/2	Functioning Properly
124	T-8	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
125	T-9	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
126	T-10	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
127	T-11	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
128	T-12	Tunnel	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
129	T-13	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
130	T-14	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
131	T-15	Tunnel	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
132	T-16	Tunnel	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
133	L-1	1st to 2nd Floor Landing West	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
134	L-2	1st to 2nd Floor Landing East	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
135	L-3	2nd to 3rd Floor Landing West	Trane	B-1	5	Thermostatic	1/2	Functioning Properly
136	L-4	2nd to 3rd Floor Landing East	Trane	B-1	5	Thermostatic	1/2	Failed, Leaking Steam
137	G-16	Basement Hall	Trane	B-1	5	Thermostatic	1/2	Could Not Test
138	G-17	Ramp Entrance-Basement	Trane	B-1 Vertical	5	Thermostatic	1/2	Could Not Test

## Equipment Tasking

<b>Air Compressor/Dryer, Air Compressor, Commercial, 5-20 HP</b>	
<b>Belt Change</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Perform belt change procedures
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Comprehensive</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Drain condensate from tank and check traps
	Check safety relief valve
	Check condition of pulley and belts (if applicable)
	Inspect air filters and wash or replace as needed
	Replace oil in compressor and check for proper level
	Lubricate motor bearings (per manufacturer's recommendations)
	Check PE switch and starter
	Check pressure reducing station for proper operation
	Inspect pressure reducing station filters and clean or replace as required
	Check for proper operation of air drier
	Check air drier condenser coil
	Brush air dryer, condenser and cover grills as required
	Check for unusual noise and vibration
	Check overall condition of unit
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Operational</b>	
	All work must be performed in accordance with Johnson Controls

	safety policies
	Check with appropriate customer representative for operational deficiencies
	Drain condensate from tank and check traps
	Check safety relief valve
	Check condition of pulley and belts (if applicable)
	Inspect air filters
	Check for proper oil level in compressor
	Lubricate motor bearings (per manufacturer's recommendations)
	Check PE switch and starter
	Check pressure reducing station for proper operation
	Check for proper operation of air drier
	Check air drier condenser coil
	Brush air dryer, condenser and cover grills as required
	Check for unusual noise and vibration
	Check overall condition of unit
	Document tasks performed during visit and report any observations to appropriate customer representative

## Air Handling Unit (AHU), 100% Outside Air, 15-30 HP

### *Standard Filter Change*

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Turn equipment off
	Remove dirty filters
	Install new filters
	Turn equipment on
	Dispose of dirty filter appropriately
	Document tasks performed during visit and report any observations to appropriate customer representative

### *Comprehensive*

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Visually inspect damper(s)
	Check condition of pulleys and belts
	Check for proper fan operation
	Check condition of coils
	Check condition of filters
	Record temperatures and pressures (if applicable)
	Check for unusual noise and vibration
	Check for deterioration of gaskets and seals
	Check overall condition of unit
	Visually inspect for fluid leaks of coils and connecting piping
	Check starter/contactors
	Check and tighten electrical connections
	Check damper operation and lubricate as required
	Visually check control valve(s)
	Lubricate blower and motor bearings
	Clean condensate pan and clear drain line
	Check condition of blower assembly
	Remove and dispose any debris from any maintenance activity

	Document tasks performed during visit and report any observations to appropriate customer representative
<b><i>Operational</i></b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Inspect motor mounting isolators
	Check for integrity of cabinet hardware
	Visually inspect damper(s)
	Verify damper operation
	Check condition of pulleys and belts
	Check for proper fan operation
	Check condition of coils
	Check condition of filters
	Record temperatures and pressures (if applicable)
	Check condensate drain
	Visually inspect electrical connections
	Check for unusual noise and vibration
	Check overall condition of unit
	Visually inspect for fluid leaks of coils and connecting piping
	Document tasks performed during visit and report any observations to appropriate customer representative

## Air Handling Unit (AHU) , 100% Outside Air, <15 HP

### **Standard Filter Change**

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Turn equipment off
	Remove dirty filters
	Install new filters
	Turn equipment on
	Dispose of dirty filter appropriately
	Document tasks performed during visit and report any observations to appropriate customer representative

### **Comprehensive**

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Visually inspect damper(s)
	Check condition of pulleys and belts
	Check for proper fan operation
	Check condition of coils
	Check condition of filters
	Record temperatures and pressures (if applicable)
	Check for unusual noise and vibration
	Check for deterioration of gaskets and seals
	Check overall condition of unit
	Visually inspect for fluid leaks of coils and connecting piping
	Check starter/contactors
	Check and tighten electrical connections
	Check damper operation and lubricate as required
	Visually check control valve(s)
	Lubricate blower and motor bearings
	Clean condensate pan and clear drain line
	Check condition of blower assembly
	Remove and dispose any debris from any maintenance activity

	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Operational</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Inspect motor mounting isolators
	Check for integrity of cabinet hardware
	Visually inspect damper(s)
	Verify damper operation
	Check condition of pulleys and belts
	Check for proper fan operation
	Check condition of coils
	Check condition of filters
	Record temperatures and pressures (if applicable)
	Check condensate drain
	Visually inspect electrical connections
	Check for unusual noise and vibration
	Check overall condition of unit
	Visually inspect for fluid leaks of coils and connecting piping
	Document tasks performed during visit and report any observations to appropriate customer representative

<b>Boiler, Gas-Fired, Atmospheric, 0-10 HP</b>	
<b>Combustion Analysis</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Perform combustion analysis procedures
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Comprehensive</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Inspect burner contactors for wear
	Check and tighten electrical connections
	Check for proper gas supply pressure
	Check and clean pilot assembly
	Clean combustion fan wheel
	Visually inspect combustion chamber, draft diverter and flue for accumulation of soot - clean as needed
	Check burner for proper sequence of operation
	Check operating controls
	Check all safety controls
	Lift relief valve to ensure proper operation
	Check boiler relief valves for leakage
	Check combustion damper operation (if applicable)
	Check operation of primary boiler pump (if applicable)
	Check factory supplied gas piping and components for leakage
	Drain boiler, open hand hole covers and clean as needed (if applicable)
	Disassemble and clean low water cut-out
	Fill boiler and check for proper operation of make-up water valve
	Verify proper operation of low water cut-out control
	Check overall condition of unit
	Record and log all operating parameters (including pressures and temperatures)
	Remove and dispose any debris from any maintenance activity

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	Document tasks performed during visit and report any observations to appropriate customer representative
<b><i>Fireside Cleaning (gaskets not included)</i></b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Remove access panels
	Brush fireside surfaces
	Reinstall access panels
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative

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<b>Boiler, Gas-Fired, Fire Tube, 151-300 HP</b>	
<b>Combustion Analysis</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Perform combustion analysis procedures
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Operational</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Blow down boiler
	Check for proper operation of low and high gas pressure cut-out switches
	Check factory supplied gas piping and components for leakage
	Check burner for proper sequence of operation
	Check flame quality
	Visually inspect combustion chamber, draft diverter and flue for accumulation of soot
	Check boiler relief valves for leakage
	Verify proper operation of low water cut-out control
	Check combustion blower motor operation
	Check hot water/steam temperature and pressure
	Check proper operation of make-up water valv
	Check overall condition of unit
	Document tasks performed during visit and report any observations to appropriate customer representative

<b>Boiler, Gas-Fired, Fire Tube, 301-600 HP</b>	
<b>Combustion Analysis</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Perform combustion analysis procedures
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Operational</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Blow down boiler
	Check for proper operation of low and high gas pressure cut-out switches
	Check factory supplied gas piping and components for leakage
	Check burner for proper sequence of operation
	Check flame quality
	Visually inspect combustion chamber, draft diverter and flue for accumulation of soot
	Check boiler relief valves for leakage
	Verify proper operation of low water cut-out control
	Check combustion blower motor operation
	Check hot water/steam temperature and pressure
	Check proper operation of make-up water valv
	Check overall condition of unit
	Document tasks performed during visit and report any observations to appropriate customer representative

<b>Chiller, Air Cooled, Screw, 251-400 Tons</b>	
<b>Vibration Analysis</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Record equipment specific information for reference
	Install pads and labels (if applicable)
	Install sensors in proper location.
	Start equipment and run at normal operating conditions.
	Record readings and remove sensors.
	Submit readings for report generation and deliver to customer with recommendations.
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Oil Analysis (2 Circuits)</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Remove sample in approved container
	Drop off for analysis
	Label and complete paperwork indicating present operating conditions
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Operational</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Review control panel for proper operation and recorded fault histories
	Check for proper chilled water flow
	Check system pressures and temperatures
	Check refrigerant charge (sight glass)
	Check oil separator level
	Check for proper capacity control operation

	Check for proper oil temperature and pressure
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Check for proper condenser fan operation
	Check overall condition of unit
	Record and log all operating parameters
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Seasonal Start-up</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative to coordinate the startup of the system
	Remove shutdown tag from unit
	Verify the chilled water valves are in their proper operating position
	Check for proper chilled water flow
	Start the chiller
	Review control panel for proper operation and recorded fault histories
	Check system pressures and temperatures
	Check refrigerant charge (sight glass)
	Check oil separator level
	Check for proper capacity control operation
	Check for proper oil temperature and pressure
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Check overall condition of unit
	Check for proper condenser fan operation
	Record and log all operating parameters
	Document tasks performed during visit and report any observations to appropriate customer representative

<b>Chiller, Air Cooled, Scroll, 101-140 Tons</b>	
<b><i>Operational</i></b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Review control panel for proper operation and recorded fault histories
	Check for proper chilled water flow
	Check system pressures and temperatures
	Check refrigerant charge (sight glass)
	Check for proper capacity control operation
	Check for proper crank case heater operation (if applicable)
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Check for proper condenser fan operation
	Check overall condition of unit
	Record and log all operating parameters
	Document tasks performed during visit and report any observations to appropriate customer representative
<b><i>Refrigerant Analysis (2 Circuits)</i></b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Remove sample in approved container
	Drop off for analysis
	Label and complete paperwork indicating present operating conditions
	Document tasks performed during visit and report any observations to appropriate customer representative
<b><i>Seasonal Start-up</i></b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative to coordinate the startup of the system
	Remove shutdown tag from unit
	Verify the chilled water valves are in their proper operating

	position
	Check for proper chilled water flow
	Start the chiller
	Review control panel for proper operation and recorded fault histories
	Check system pressures and temperatures
	Check refrigerant charge (sight glass)
	Check for proper capacity control operation
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Check overall condition of unit
	Check for proper condenser fan operation
	Record and log all operating parameters
	Document tasks performed during visit and report any observations to appropriate customer representative

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## Fan, Exhaust Fan, Ceiling Mounted, 0 - 5HP

### Comprehensive

	Check with appropriate customer representative for operational deficiencies
	Check rain guard
	Check and tighten electrical connections
	Clean area around equipment
	Inspect starter
	Lubricate as required
	Motor operating amps
	Check bearing wear
	Check belt guard
	Check belt(s) (if applicable)
	Check drive condition
	Check electrical contacts
	Check fan blades
	Check for proper rotation
	Complete any required maintenance checklists, report observations to appropriate customer representative

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<b>Fan, Exhaust Fan, Roof Mounted, 0-5 HP</b>	
<b>Comprehensive</b>	
	Check with appropriate customer representative for operational deficiencies
	Check rain guard
	Check and tighten electrical connections
	Clean area around equipment
	Inspect starter
	Lubricate as required
	Motor operating amps
	Check bearing wear
	Check belt guard
	Check belt(s) (if applicable)
	Check drive condition
	Check electrical contacts
	Check fan blades
	Check for proper rotation
	Complete any required maintenance checklists, report observations to appropriate customer representative

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<b>Furnace, All</b>	
<b>Comprehensive</b>	
	Check with appropriate customer representative for operational deficiencies
	Cycle thermostat and check for proper operation
	Check fan operation
	Check for unusual noise or vibration
	Clean area around equipment
	Complete any required maintenance checklists, report observations to appropriate customer representative
<b>Filter Replacement</b>	
	Check with appropriate customer representative for operational deficiencies
	Replace air filters per agreement
	Turn equipment off
	Remove dirty filters
	Install new filters
	Turn equipment on
	Dispose of dirty filter appropriately
	Complete any required maintenance checklists, report observations to appropriate customer representative
<b>Filters, Standard Pleated</b>	
	Check with appropriate customer representative for operational deficiencies
	Replace air filters per agreement
	Turn equipment off
	Remove dirty filters
	Install new filters
	Turn equipment on
	Dispose of dirty filter appropriately
	Complete any required maintenance checklists, report observations to appropriate customer representative
<b>Operational</b>	
	Check with appropriate customer representative for operational deficiencies
	Cycle thermostat and check for proper operation
	Check fan operation
	Check for unusual noise or vibration

	Clean area around equipment
	Complete any required maintenance checklists, report observations to appropriate customer representative

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<b>Heater, Gas Infrared-All</b>	
<b><i>Comprehensive</i></b>	
	Check with appropriate customer representative for operational deficiencies
	Check operating and safety controls, adjust as needed
	Clean pilot assembly, including electrode spark gap, orifice, and ignition wire
	Check and tighten electrical connections
	Inspect for leaks and report
	Check alignment of thermo-sensor bulb
	Check and clean pilot sight glass
	Clean area around equipment
	Complete any required maintenance checklists, report observations to appropriate customer representative

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**Roof Top Unit (RTU) , Cooling/Gas Heating,  
without Economizer, <8 Tons**

***Return Air Filter Change***

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Turn equipment off
	Remove dirty filters
	Install new filters
	Turn equipment on
	Dispose of dirty filter appropriately
	Document tasks performed during visit and report any observations to appropriate customer representative

***Condenser Coil Cleaning***

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Rinse coil(s) thoroughly with water
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative

***Cooling Comprehensive (without Economizer)***

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Review control panel for proper operation and recorded fault histories (if applicable)
	Check and tighten electrical connections
	Check VFD operation and clean cooling fan intake (if applicable)
	Check contactor(s)
	Check condition of condenser coil
	Check condition of evaporator coil
	Check condenser fan motors and blades
	Check blower motor operation

	Lubricate blower and motor bearings
	Check condition and alignment of pulley and belts
	Check condition of filters
	Clean condensate pan and clear drain line
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Record and log all operating parameters
	Check overall condition of unit
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative
<b>Gas Heating Comprehensive (without Economizer)</b>	
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Check and tighten electrical connections
	Check contactor(s)
	Check combustion blower motor operation
	Check igniter and pilot operation
	Check condition of heat exchanger
	Check condition of burners and clean as required in place
	Check for proper venting
	Check for leaks on gas line (within cabinet)
	Check condition of pulley and belts
	Check condition of filters
	Check for unusual noise and vibration
	Check overall condition of unit
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative

## Unit Heater, Gas Fired, <300000 BTU

### Comprehensive

	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Check integrity of unit heater supports
	Check and tighten electrical connections
	Check igniter and pilot operation
	Check condition of heat exchanger
	Check condition of burners and clean as required in place
	Check for proper venting
	Check for leaks on gas line down stream of manual shutoff
	Check condition of pulley and belts (if applicable)
	Cycle thermostat and check for proper operation
	Check for unusual noise and vibration
	Check overall condition of unit
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative

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