

**Springfield School District
Springfield School Building Assessment
O&M Review**

Page 1 of 5

PREPARED FOR: Regan G. Young, AIA
Regan Young England Butera

PREPARED BY: N. Marc Lorusso, Principal
Kelter & Gilligo Consulting Engineers

DATE: March 27, 2020

SPEC SECTION 223400 - A.O. Smith Hot Water Heater Maintenance:

1. On an annual basis:

- Visual inspection on venting system. Ensure there are no obstruction in combustion and ventilation air flow
- Check for damage or deterioration which could cause improper venting or leakage of combustion product.
- If sooting or deterioration is observed, contact local gas utility. Clean or replace the flue and venting before resuming operation.
- Visually inspect the main burner through the view port.
- Inspect anode rod, replace if necessary.
- Water heater should be drained if being shut down during freezing temperatures. Check for leakage around the water heater.
- Check leakage points as indicated in the manual.

SPEC SECTION 224000 - American Standard Plumbing Fixtures Maintenance:

1. For flush valves, on as required basis:

- Adjust stop valve as indicated in the manual (To avoid over flowing, the stop valve shall not be opened to the point where the flow from the valve exceeds the draining ability of the fixture).
- Set detection range as indicated in the manual.
- Clean with clear water, dry with a soft cotton flannel cloth

*KELTER & GILLIGO consulting engineers
14 Washington Road, Suite 221, P.O. Box 777, Princeton Junction, NJ 08550
(609) 799-8336 FAX (609) 275-9306
e-mail: Info@KandG-pc.com*

- Do not clean the product with soaps, acid, polish, abrasives, harsh cleaners, or a cloth with a coarse surface.

SPEC SECTION 230519 - H.O. Trerice Meter & Gauges Maintenance:

1. On an as required basis:

- Keep meters & gauges clean by replacing glass, rings etc. Linkage of a press gauge should never be oiled as it will attract dirt. If a gauge requires attention due to sluggishness, usually cleaning the movement with carbon tetrachloride or some similar solvent will correct the problem.

SPEC SECTION 230523 - Bell & Gossett/ Nibco Valves Maintenance:

1. On an as required basis:

- Inspect the valve for signs of leakage or corrosion.

SPEC SECTION 233423 - GREENHECK Power Ventilators Maintenance:

1. Twice per year:

- Check periodically for wear and tightness.
- Replace belt as indicated in the manual.
- Grease the motor and fan bearings as indicated in the manual – Do not over-grease.
- Wheel and housing should be cleaned to ensure smooth and safe operator.
- Check fastener for tightness prior to restarting unit.

SPEC SECTION 236200 - Carrier Performance Series Condensing Units Maintenance:

1. On a quarterly basis (Disconnect all electrical power prior to performing any maintenance. Failure to comply could result in serious injury or death).
- Keep filter clean, do not block floor, wall, or ceiling vents, check condensate drain, and do not operate below 55 Degrees F /12.78 degrees C.
 - Wash all exposed surfaces and the outdoor coil.
 - Replace filter.
 - Clean indoor and outdoor coil points as indicated in the manual.

SPEC SECTION 237333 - Reznor Indirect Gas Fired Package H&V Units Maintenance:

1. On a quarterly basis:

- Inspect furnace quarterly under normal operation. If operate in area where an unusual amount of dust or soot or other impurities are present, more frequent inspection is recommended.
 - Remove external dirt accumulation and check wiring connections.
2. On an as annual basis:
- Combination gas valve must be checked annually to ensure that the valve is shutting off gas flow completely.

SPEC SECTION 237413 - Carrier and AAON Package Roof Top Units Maintenance (Shut off all electrical power to the unit to avoid shock hazard or injury from rotating parts):

1. On an annual basis:
- Service technician shall inspect the unit.
 - Inspect gas pipe in the unit for gas leaks.
2. On an monthly basis:
- Inspect fans, evaporator coils, and filter.
3. On an as required basis:
- Inspect all flue product carrying areas of the furnace and main burners for continued safe operation.
 - Inspect gas pipe in the unit for leaks before startup.
 - Clean coils as indicated in the manual.

SPEC SECTION 238126 – Carrier Split System Air Conditioning Units Maintenance:

1. On a quarterly basis:
- Clean the coil. Use a vacuum cleaner or a long-bristle brush to avoid damage coil fins.
2. On an monthly basis:
- Remove and clean the air filters.

SPEC SECTION 233219 – Carrier Air Handling Units Maintenance:

1. On a quarterly basis:
- Inspect coil, air filter, belt, pulley and condensate drain.
 - Inspect condenser motor mounting bolts, clean coil.

- Clean or replace air filters.

SPEC SECTION 238219 – Carrier Fan Coil Units Maintenance:

1. On a quarterly basis:
 - Inspect air filter. Replace any filters quarterly.
 - Inspect drain pan and clean if necessary quarterly.
 - Inspect, clean coil and fan wheel annually.
 - Clean and tighten all electrical connections.

SPEC SECTION 238223 – Carrier Unit Ventilator Maintenance:

1. On an monthly basis:
 - Inspect air filter monthly, replace any filters.
 - Inspect drain pan monthly, clean if necessary.
2. On an annual basis:
 - Inspect and clean coils.
 - Inspect fan wheels and housing for damage. Ensure that wheels move freely by hand.
 - Clean and tighten all electrical connections.

SPEC SECTION 238233 – Slant Fin, Fin Tube Radiation & other Radiator Maintenance:

1. On an as required basis:
 - Clean all accumulated dust and dirt with a suction vacuum cleaner and visually check for loose screws, fasteners.

SPEC SECTION 238239 – Airtherm Cabinet Heater Convactor Units Maintenance:

1. On a quarterly basis:
 - Cleanable filters should be changed twice during the cooling and heating season with periodic checks for excessive dust and lint accumulation.
2. On an annual basis:
 - Clean the coil once a year, remove dirt by brushing or vacuuming.

3. On a biennial basis:

- Lubricate the motor every two year for 8000 hours.

SPEC SECTION 238239 - GPS Wireless Clock Systems Maintenance:

N/A

SPEC SECTION 265100 - Lighting Fixtures Maintenance:

N/A

SPEC SECTION 283111 - Digital Addressable Fire Alarm System Maintenance:

N/A

SPEC SECTION 263213 – Generators Maintenance

1. On an annual basis:

- Clean fuel and filter. After a few weeks of operation, diesel fuel degrades via contamination of water and microbes, resulting in clogged fuel lines and filters. Fuel cleaning involves using biocides annually in all generators except for the standby generator, in which it will attract moisture.

2. On an as required basis:

- Inspect the coolant level. This must be done during shutdown periods.
- Change the oil after 100 hours of operation.
- Exorcise the generator on a weekly basis for 30 minutes under load. This will charge the battery, remove excess wetness, lubricate the engine and filter the fuel and foil. Any loose pieces found anywhere on the generator must be placed securely in.

SPEC SECTION 264411, 264416 - Gear Switchboard Maintenance:

N/A