

**HVAC PM Contract
Clifty Falls Contract Scope of Work
2027 New Contract**

General Statement

1. The contractor shall provide sufficient means and methods, including experienced and qualified personnel, to keep all equipment covered by these specifications operating properly.
2. The contractor shall be able to program and service the control systems specific to the site(s) and equipment included in this agreement and shall be responsible for the procurement of any software required to perform this function.
3. Work shall be performed on major items of equipment listed in our **Schedule A** at the site(s) indicated on this scope of work and listed in our separate **Schedule A Excel Doc.**
4. This preventative maintenance services program shall include the systematic inspections, service, restoration, maintenance-related part replacements, call-back service, testing, cleaning, and adjustments, as specified herein, to maintain all heating, ventilating and air conditioning equipment in accordance with manufacture specifications, industry standards, building codes, and state expectations. This includes, but is not limited to, boilers, exhaust fans, temperature controls, air compressors, portable water heaters, softening equipment, cooling devices and systems related the HVAC equipment, including but not limited to valves, pneumatic switches, backflow preventers, dampers and diffusers.
5. The Contractor shall make **four (4) pre-scheduled service visits per year**, conducted Quarterly, and perform all necessary preventive maintenance services as required by these specifications. Seasonal facilities with equipment requiring two (2) visits per year, conducted Spring and Fall, are noted on the **Schedule A and the Summary of Work.** Where two (2) visits are specified, the contractor shall schedule with the site's property manager or their designee all planned work requiring completion before seasonal start-up each year, as well as assist the site with seasonal shut down of equipment, including winterization of components subject to freezing.

Summary of Work:

1. Temperature Control Systems

- a. Examine each piece of equipment and device to ensure proper functioning and good operational condition, as well as any components of an older pneumatic system that may be in use including air compressor, dryer, condensate drainage systems, etc.
- b. Calibrate all sensing, monitoring, output, safety, and readout devices for proper ranges, settings, and optimum efficiencies per the State's requests.
- c. Adjust all linkages, drives, dampers, diffusers, etc. that have drifted from initial design setting and positions.
- d. Clean and lubricate all equipment as required.
- e. Inspect piping and valves for leaks; tighten connections as necessary.
- f. Clean area around equipment.

- g. Exercise and lubricate all valves and treat all corrosion found.

2. Chillers:

- a. Inspections shall include a complete system diagnostic test and check of all safety controls, operating pressures, temperatures, oil level, refrigerant level, amps, voltage, and all controls pertaining to the units (2).
- b. Repair any leaks and replace refrigerant lost. Report all leaks and amount of refrigerant used.
- c. Inspect, calibrate, repair or replace defective controls.
- d. On shutdown, perform the necessary preventative maintenance-related repairs and service as required including winterization required. This work shall include, but is not limited to, changing dryer cores and oil, oil analysis, inspection, and cleaning condenser tubes, and conducting Eddy Current Tests at least five (5) years, where applicable. The contractor must determine when the next test is due and provide a copy of the previous test. If one cannot be found, then the contractor must assume a test is due.
- e. If a problem is detected that required a tear down inspection of the unit, this shall be reported immediately to the sites property manager or their designee. Tear down and replacement of major, stand-alone-type compressors are not included within the scope of work for this contract and shall required prior approval and payment outside of this contract, under a separate invoice and purchase order (which may include the State's Public Work's emergency process).
- f. Inspect piping and valves for leaks; tighten connections as needed.
- g. Clean around equipment.

3. Condensers, conducted Quarterly as follows, conducted Quarterly as follows:

- a. Check unit for proper operation, excessive noise, or vibration.
- b. Pressure wash all coils and fans with appropriate coil cleaning solution.
- c. Check electrical wiring and connections; tighten loose connections. If power factor correction is suspected or under-sizing of conductors, report these findings.
- d. Lubricate shaft bearings and motor end bearings.
- e. Inspect fans or blowers for bent blades or imbalance; adjust or replace as needed.
- f. Check belts for condition, proper tension, and misalignment; adjust or replace as needed. All replaced belts must be pre-tensioned prior to installation. Multiple belts shall be matched and replaced all at one time.
- g. Inspect piping and valves for leaks; tighten connections as necessary.
- h. Clean area around equipment including sweeping area and contacting the site's property manager or their designed about any clutter DNR staff must remove. Indicate this in the report.

4. Air Handlers and Forced Air Equipment, conducted Quarterly as follows:

- a. Inspect each piece of equipment and all controls for proper operation, alignments, and calibration.
- b. Check for unusual noise or vibration.

- c. Lubricate all moving parts as required.
- d. Check for wear, alignment, and proper tension; adjust or replace belts as required. Pre-tension all replacement belts.
- e. Visually inspect and clean coils, fans, drain pan, blower, motor, condensate pan or pumps, piping, and once per year check for leaks and treat for algae or molds. Where mold seems excessive, provide recommendations for improvement such as UV or other means.
- f. Provide air filters quarterly to meet all manufacture recommendations and recommended replacement frequency of all listed equipment on our Schedule A. Filters are to be delivered to customer and installed by owner. Customer will provide (4) quarterly filter orders to be fulfilled by PM contractor.
- g. At no time will filter media be replaced with a less efficient type. High efficiency and UV filtration are included in this contract, including UV tube replacement in compliance with manufacturer recommendations.
- h. Inspect piping and valves for leaks; tighten connections as necessary.
- i. Clean area around equipment including sweeping area and contacting site's property manager or their designee about clutter DNR staff must remove. Indicate this in the report.
- j. Humidifiers will have annual service including media replacement and water conditioning/filtering as required.
- k. All forced air systems serving public use facilities shall be balanced once per year for air distribution. A balance report shall be submitted to the site's property manager or their designee. Check steam/condensation traps annually while in operation.

5. Chilled/Hot Water Supply/Return Pumps and Hot Water Circulation Pumps:

- a. Inspect all pumps for proper operation and assure no cavitation or NPSH problems exist.
- b. Clean and lubricate as required.
- c. Check isolation valves and gauges; provide if missing or not working. Establish a gauge reading schedule to record findings on date, temperatures, or pressures.
- d. Provide a means to diagnose operational problems, determine GPM, Delta T, system balance and system curve.
- e. Inspect piping and valves for leaks; tighten connections as needed. Excessive condensation on piping should be reported and insulated. Repair/replace failed insulation.
- f. Balance all hydronic systems once per year for water distribution.
- g. Clean area around equipment including sweeping area and contacting the site's property manager or their designee about clutter DNR staff must remove

6. Back Flow Preventor Inspections, conducted Annually as follows:

- a. Visually inspect the current condition of each backflow unit.
- b. Turn off the downstream valve and wait before connecting the backflow testing kit.
- c. Connect the backflow test kit.

- d. Determine if there are any areas where the pressure is off balance and correct the balance.
- e. Exercise all valve upstream and downstream of all backflow preventors.
- f. Tag the unit with inspection date and all relevant information.
- g. Complete SF55788 Backflow Device Test 327 IAC 8-10-9(b) and submit to all required regulatory agencies.

7. Potable Water Heaters, conducted Annually as follows:

- a. Drain and flush all water heaters one (1) time per year at all locations after turning equipment off. Check that the pressure temperature relief valve is functioning properly, and the piping is grounded as required.
- b. Check smoke pipe and related exhaust equipment, burner areas, power ventilators, combustion chambers, isolation valves, pressure relief valves (including drains accepting flows from these devices), tank, and other controls and circulating pumps for proper operation. Remove corrosion and repaint as needed.
- c. Inspect piping and valves for leaks; tighten connections as necessary.
- d. Clean area around equipment.
- e. Tag the unit with inspection date and all relevant information.

8. Boilers:

- a. Check all safety devices, controls, and operating controls.
- b. Clean, inspect, lubricate, and perform any necessary adjustments to obtain burner(s) efficiency.
- c. Include burner test reports with the service report.
- d. Clean area around equipment.
- e. Complete maintenance checklist and report deficiencies to the site's property manager or their designee.
- f. Perform annual inspection of units to determine code safety requirements and satisfactory operation. Provide written report to the site's property manager or their designee.
- g. Boilers, burners, fuel delivery and filtration systems (including fuel oil filters, vents, and overfill warning systems), condensate return systems, and water treatment services including chemical injection equipment and storage , including the cost of chemicals used, are the contractor's responsibility. Perform tests with every visit to ensure proper chemical treatment is occurring via analysis of the boiler chemistry typical of these systems. All boiler rooms shall have a valve inventory made and each valve tagged with a brass tag, what its function is, and when it is to be exercised for what purpose (startups/shut-downs, etc. such as for lock-out/tag-out purposes). A complete seasonal startup and shutdown instruction sheet shall also be placed next to the valve schedule – mounted for visibility and laminated for protection. An electronic copy of these documents shall be given to the site's property manager or their designee.

9. Water Conditioning and Softening Equipment, conducted Quarterly as follows:

- a. Check hardness before and after conditioning in equipment room and farthest fixture. Report findings and recommendations.
- b. Check calibration of equipment and adjust for fewer than 5-grains hardness for other than boiler feed uses (which shall be less than 1-grain hardness). Chemical treatment of boiler water shall be provided where needed and contractor shall be responsible for chemicals added and reports of conditions treated. All boilers for State Park Inns shall be tested for water quality four (4) times per season of operation.
- c. Check usage of salt and report if excessive or low for expected use. Report level of media where the softening occurs. Verify that it is not being flushed into the potable water system during regeneration.
- d. Annually clean the equipment and verify that back flushing and regeneration cycles are adequate, and that softening media is at adequate levels and not being expelled into the system. Inspect piping and valves for leaks; tighten connections as necessary.
- e. Clean area around equipment including sweeping area and contacting the site's property manager or their designee about clutter DNR staff must remove. Indicate this in the report.

10. Electrical Equipment and Controls:

- a. Related electrical panels, starters, disconnects, switches, outlets, conduits, and other related equipment shall be inspected for compliance to code. This includes that breakers are properly labeled, that corrosion or pitted contacts are repaired, that any overheating of components is determined and corrected, that the balancing of loads per bus is improved, and grounding systems are inspected for compliance to code.

11. Swimming Pool and Spa Equipment:

- a. Where facilities have swimming pools or spas, all the associated HVAC, potable water heating, dehumidification, pumps filtration, chemical treatment, valves, piping and controls shall be covered in the specification, whether or not listed in the **Schedule A**.
- b. Inn pools shall be visited four (4) times per year; Park (outdoor pool) shall be visited two (2) times per year for scheduled preventative maintenance. In addition, one (1) mid-season operational check is required to verify proper operation of all equipment.
- c. Test the electrical connections, groundings, and proper watertight seal of fixtures. Replace submerged light bulbs where needed.

12. Quarterly Diagnostic Time/Labor

- a. Provide (8) hours of technician labor quarterly to assist Clifty Inn maintenance employees with building HVAC or plumbing issues.
 - i. Quarterly labor to be used during duration of quarter, not on day of quarterly PM service.
 - ii. Parts and materials are excluded