

Scope of Work

Preventive Maintenance Services Eastern Louisiana Mental Health Hospital

1. General Description of Work

The Contractor shall provide all labor, supervision, tools, materials, testing equipment, and documentation necessary to perform **scheduled preventive maintenance and operational inspections** on mechanical HVAC and utility equipment at Eastern Louisiana Mental Health Hospital.

The intent of this scope is to ensure **safe, reliable, and efficient operation** of critical mechanical systems serving a 24-hour healthcare facility. All work shall be performed in accordance with **manufacturer recommendations, applicable codes, industry standards, and hospital safety requirements**, including Lockout/Tagout (LOTO) procedures.

The Contractor shall document all findings, operating data, test results, deficiencies, and recommendations and submit written reports to Hospital Facilities Management.

2. Gas-Fired Hot Water Boilers

Annual Preventive Maintenance

- Shut down boiler and perform Lockout/Tagout (LOTO).
- Inspect and verify burner operation and burner control system.
- Inspect gas train including regulator, valves, safety switches, linkages, and verify gas pressure.
- Inspect for gas leaks and verify proper operation of gas safety devices.
- Inspect draft fan and associated components.
- Perform combustion analysis and record results on work order.
- Inspect and verify:
 - Low water cutoff(s)
 - Water feeder(s)
 - Shut-off valves
 - Temperature, pressure, and safety controls
- Blow down feeder cutoff control(s), boiler, and gauge glass as applicable.
- Inspect and test safety relief valve.
- Inspect piping connections and associated valves.

- Inspect water level gauge glass and controls.
- Disassemble and clean low water cutoff where applicable.
- Inspect control contacts for wear, pitting, or erosion.
- Inspect mercury bulbs where applicable.
- Inspect wiring and terminations.
- Clean burner assembly per manufacturer requirement.
- Clean make-up water and high-water components.
- Inspect refractory material where applicable.
- Clean external surfaces.
- Inspect cabinetry and hardware.
- Check for abnormal noise or vibration.
- Evaluate and report overall condition of unit.

Operational Inspection

- Verify boiler operation under normal conditions.
- Check and record all operating parameters.
- Re-verify gas pressure, burner linkages, gas safety, and draft operation.
- Verify water-side controls and safety devices.
- Blow down boiler and gauge glass.
- Inspect for abnormal noise, vibration, or visible deficiencies.
- Verify overall operational condition.

3. Water-Cooled Screw Chillers

Annual Preventive Maintenance

- Record and report abnormal conditions and measurements.
- Review customer operating logs for trends and issues.
- Inspect for refrigerant and oil leaks and report findings.
- Lubricate bearings as required.
- Inspect control panels for cleanliness.
- Inspect wiring and electrical connections for tightness and overheating.
- Verify operation of all indicators, alarms, and displays.
- Test oil pressure safety devices as required.
- Pull oil sample for spectroscopic analysis and test for acidity and discoloration.
- Provide recommendations based on oil analysis results.
- Verify operation of oil heaters.
- Clean starter cabinet and components.
- Inspect contactors for wear and pitting.
- Verify free operation of contactors.
- Verify motor terminal connection tightness.
- Perform motor insulation resistance (megger) testing and record results.

- Verify electrical interlocks.
- Record all operating parameters.

Operational Inspection

- Verify general operation of the chiller.
- Log temperatures, pressures, voltages, and amperages.
- Verify operation of control circuits, lubrication system, motor, and starter.
- Analyze recorded data against original design conditions.
- Review operating procedures with hospital personnel.
- Record all operating parameters.

Condenser Cleaning

- Brush condenser tubes as required per manufacturer requirement.

4. Condenser Water Pumps / Chilled Water Pumps / Hot Water Pumps

Annual Preventive Maintenance

- Measure and record motor voltage and amperage.
- Inspect and tighten electrical connections.
- Inspect starters and contactors for wear.
- Inspect operating and safety controls.
- Lubricate motor and pump bearings per manufacturer recommendations.
- Check pump/motor alignment and coupling condition.
- Inspect mechanical seals or packing.
- Inspect and clean strainers per manufacturer requirement.
- Inspect hand valves and gauges for accuracy.
- Record suction and discharge pressures.
- Inspect mounts and vibration pads.
- Evaluate and report overall condition of equipment.

Operational Inspection

- Verify electrical readings and starter operation.
- Inspect lubrication, seals, coupling, valves, and gauges.
- Verify pressures and operating condition.
- Inspect for abnormal noise or vibration.
- Report overall operational condition.

5. Cooling Towers

Annual Preventive Maintenance

- Remove debris from tower interior and surrounding area.
- Clean hot deck and verify structural integrity.
- Clean and adjust float valve assembly.
- Clean bleed-off line and overflow system.
- Clean spray nozzles.
- Inspect fans, fan assemblies, and gear reducer oil levels.
- Lubricate fan and motor bearings as required.
- Inspect belt condition, alignment, and replace per manufacturer requirement.
- Inspect wiring and electrical components.
- Inspect baffles, strainers, sump heaters, and thermostats where applicable.
- Adjust condenser water temperature control system.
- Tighten motor terminal connections.
- Place tower into operation and verify performance.
- Inspect for abnormal noise or vibration.
- Inspect cabinetry, hardware, and overall condition.

Operational Inspection

- Verify float operation and spray distribution.
- Inspect fans, belts, gear reducer, eliminators, and strainers.
- Verify tower operation.
- Inspect for abnormal noise or vibration.
- Evaluate overall condition.

Cooling Tower Cleaning

- Drain cooling tower and clean sump per manufacturer requirement.

Pump Strainer Cleaning

- Isolate pump, remove, and clean strainer per manufacturer requirement.
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6. Air-Cooled Scroll Chillers

Annual Preventive Maintenance

- Record and report abnormal conditions and measurements.
- Review customer logs for operational trends.
- Inspect for refrigerant leaks and report results.
- Inspect condenser fans for clearance and free operation.
- Inspect fan motor mounts and shaft set screws.
- Inspect condenser coils for cleanliness.
- Verify VFD operation where applicable.
- Lubricate bearings as required.
- Inspect control panel cleanliness and wiring integrity.
- Verify indicators, alarms, and displays.
- Verify oil heater operation.
- Clean starter cabinet and electrical components.
- Inspect contactors and motor terminals.
- Perform motor megger testing and record readings.
- Verify electrical interlocks.
- Measure and record voltage.
- Record all operating parameters.
- Clean air-cooled condenser per manufacturer requirement.

Operational Inspection

- Verify unit operation.
- Log temperatures, pressures, voltages, and amperages.
- Inspect control circuit, lubrication system, motor, and starter.
- Analyze recorded data against design conditions.
- Review operating procedures with hospital personnel.
- Record all operating parameters.

7. Water-Cooled Scroll Chillers

Annual Preventive Maintenance

- Record and report abnormal conditions and measurements.
- Review customer logs for trends.
- Inspect for refrigerant leaks.
- Lubricate bearings as required.
- Inspect control panel cleanliness and wiring.
- Verify indicators, alarms, and displays.
- Verify oil heater operation.
- Clean starter cabinet and electrical components.
- Inspect contactors and electrical interlocks.
- Measure and record voltage.
- Record all operating parameters.

Operational Inspection

- Verify unit operation.
- Log temperatures, pressures, voltages, and amperages.
- Inspect control circuits, lubrication system, motor, and starter.
- Analyze data versus design conditions.
- Review operating procedures with hospital personnel.
- Record all operating parameters.

Condenser Cleaning

- Remove condenser heads and mechanically clean condenser tubes per manufacturer requirement.

8. Boilers

The contractor shall perform the following tasks, including but not limited to:

8.1 Pre-Maintenance Activities

- Review boiler operation history, previous maintenance records, and reported issues
 - Verify work permits, lockout/tagout procedures, and safety requirements
 - Isolate, shut down, and allow boiler to cool as required
 - Conduct initial visual inspection of boiler and auxiliary equipment
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8.2 Mechanical Inspection and Maintenance

- Inspect boiler pressure vessel, tubes, drums, headers, and refractory for signs of corrosion, erosion, cracking, or leakage
 - Clean fire side and water side surfaces (as applicable) to remove soot, scale, and sludge
 - Inspect and service burners, including nozzles, igniters, flame scanners, and registers
 - Check and lubricate moving parts such as fans, dampers, linkages, and actuators
 - Inspect gaskets, seals, doors, and access covers; replace if required
 - Inspect expansion joints, supports, and insulation condition
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8.3 Combustion System and Fuel Supply

- Inspect fuel supply lines, valves, strainers, and regulators for leaks or damage
- Clean and calibrate fuel valves and pressure regulators
- Inspect combustion air system, fans, filters, and ducts

- Perform combustion tuning to optimize efficiency and minimize emissions
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8.4 Electrical and Control Systems

- Inspect electrical wiring, terminals, panels, and grounding
 - Test and calibrate control instruments, sensors, and transmitters
 - Inspect and test boiler control panel, PLC (if applicable), and interlocks
 - Verify proper operation of alarms, trips, and shutdown sequences
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8.5 Safety Devices and Instrumentation

- Inspect, test, and calibrate safety valves and relief valves
 - Test low-water cutoff devices and water level controls
 - Inspect pressure gauges, temperature gauges, and level indicators
 - Verify functionality of emergency shutdown systems
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8.6 Feedwater and Blowdown Systems

- Inspect feedwater pumps, valves, and piping
 - Check and clean strainers and filters
 - Inspect and test blowdown valves and piping
 - Verify proper operation of water treatment and chemical dosing systems (if applicable)
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8.7 Performance Testing

- Conduct operational testing under normal load conditions
 - Measure and record operating parameters (pressure, temperature, fuel consumption, flue gas readings, etc.)
 - Verify boiler efficiency and stable operation
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8.8. Documentation and Reporting

- Provide a detailed maintenance report including:
 - Inspection findings and test results
 - Calibration records

- Identified defects or non-conformances
 - Recommendations for repairs, replacements, or improvements
 - Update maintenance logs and compliance records
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8.9. Deliverables

- Completed preventive maintenance checklist
 - Test and calibration certificates (where applicable)
 - Final maintenance report with recommendations
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8.10 Exclusions (if applicable)

- Major repairs or component replacement unless specifically authorized
 - Chemical supply beyond testing and inspection
 - Structural modifications
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8.11. Compliance

All work shall be carried out in accordance with:

- Boiler manufacturer's guidelines
- Applicable local regulations and safety codes
- Site safety and environmental procedures

Attachment B – Scope of Work and Equipment Inventory Table

RFx No.:3000025996

Title: Mand.SiteVisit-Maintenance of Equip-LDH

Equipment Inventory Table

Qty	Equipment ID	Manufacturer	Model	Serial Number	Rating	Location	Area Served / Notes
1	BLR 001 (Offsite)	Lochinvar	CBN2067	2015101435065	10 HP	Offsite Bldg. Chiller Yard	Offsite
1	Bienville CHLR 001	Trane	RTWD 200A 2L02 A1A1 AA2A 1A1Y 1D1A 7001	U22B00935	200 Ton	Behind Bienville	Bienville & 200 Bldgs
1	Bienville Cond PMP 001	Teco Westinghouse	—	—	20 HP	Bienville	Condenser Pump
1	Bienville CTWR 001	Evapco	ATL8-418B	997125M	200 Ton	Bienville	Cooling Tower
1	Bienville CWP PMP 01	Teco Westinghouse	TJV6236524 006	—	25 HP	Bienville	Condenser Water Pump
1	Cedarview CHLR 001	Trane	RTWD 100A 2A01 A1A1 AA1A 1A1Y	U08H01128	100 Ton	Cedarview Chiller Room	Cedarview / Parker / DD
1	Cedarview CHLR 002	Trane	RTWD 100A 2G01 A1A1 AA2A 1A1Y	U18G01414	100 Ton	Cedarview Chiller Room	Cedarview
1	Cedarview CHLR 003	Trane	RTWA090AYE01C3C0W	U99H00933	90 Ton	Cedarview Chiller Room	Cedarview / Parker / DD
1	Cedarview CTWR 001	Evapco	—	—	100 Ton	Behind Cedarview	Cedarview / Parker / DD
1	Cedarview CTWR 002	Evapco	—	—	100 Ton	Behind Cedarview	Cedarview / Parker / DD

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1	Cedarview CTWR 003	Evapco	—	—	100 Ton	Behind Cedarview	Cedarview / Parker / DD
6	Cedarview CWP 001–006	—	—	—	10 HP	Cedarview Chiller Room	Cedarview / Parker / DD
3	Cedarview PMP 001–003	—	—	—	7.5 HP	Cedarview Chiller Room	Cedarview / Parker / DD
1	Central BLR 001	Fulton	VTG-3000	—	20 HP	Central Bldg Yard	Central
1	Central CHLR 001	Trane	RTWD 130A 2F02 A1A1 AA2A	U17D07962	130 Ton	Central Chiller Room	Central Building
1	Central CTWR 001	Evapco	AT19-59	997127M	100 Ton	Central Yard	Central
1	Central PMP 001	Dayton	3KV89G	—	15 HP	Central Yard	Pump
1	Central PMP 005	WEG	01019OT3E215JM-S	1033127646	10 HP	Central Chiller Room	Pump
1	CHLR 001 (Offsite)	Trane	CGAM 080F	U16D54500	80 Ton	Offsite	Offsite
1	CHLR 002 (Offsite)	Trane	CGAM 080F	U16C53953	80 Ton	Offsite	Offsite
1	CWP PMP 001 (Offsite)	—	—	—	7.5 HP	Offsite Yard	Pump
1	CWP PMP 002 (Offsite)	—	—	—	7.5 HP	Offsite Yard	Pump
1	Evangeline CHLR 001	Carrier	30HXC106R	0407Q07022	30 Ton	Evangeline Chiller Room	To be replaced

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1	Evangeline Cond PMP 001	Worldwide Electric	PEWWE20-18-256T	1014596VVGJ	20 HP	Evangeline CT Yard	Condenser Pump
1	Evangeline CTWR 001	Evapco	AT18-49B	997123M	30 Ton	Evangeline	Cooling Tower
1	Evangeline PMP 003	Teco Westinghouse	AEHH8N	WHV4229404	10 HP	Evangeline Chiller Room	Pump
1	Evangeline PMP 004	US Motors	R673A	—	15 HP	Evangeline Chiller Room	Pump
1	Gabriel CHLR 001	Trane	RTWA 1004 XQ01	U05D01281	100 Ton	Gabriel Chiller Room	Gabriel
1	Gabriel CTWR 001	Evapco	AT19-111	997124M	100 Ton	Gabriel	Cooling Tower
1	Oakcrest CHLR 001	Trane	RTWD 220F 2J02	U19D03724	220 Ton	Oakcrest Chiller Room	Oakcrest
1	Oakcrest CTWR 001	Evapco	AT19-712	997126M	220 Ton	Oakcrest	Cooling Tower
1	Treatment CHLR 001	Trane	TPWCCMV0150D3-MM	A010036820	20 Ton	Treatment Mech Room	Treatment

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Title: Mand.SiteVisit-Maintenance of Equip-LDH

BOILERS:

LOCATION	MANUFACTURER	MODEL#	ALTITUDE	INPUT RATING	MIN INPUT RATING	OUTPUT	MAX INLET GAS PRESSURE	MIN INLET GAS PRESSURE	MAINIFOLD PRESSURE
ASSA	LOCHINVAR	CBN2067	0-4,000	2,065,000	990,000	1,673,460	14	5	1.20
CENTER BUILDING	FULTON	VTG-3000	0-2,000	3000 MBH		3000 MBH	28	19	3
SFF	MULTI TEMP	MR-360		360,000		288,000	14	4.5	