FEDERAL EMERGENCY MANAGEMENT AGENCY | REGION 10
FRC COOLING TOWER & CLOSED-LOOP CHILLED WATER TREATMENT & TESTING SERVICES
STATEMENT OF OBJECTIVE
June 2026

A. PROJECT TITLE

Federal Emergency Management Agency (FEMA) Region 10 Federal Regional Center (FRC) Cooling Tower & Closed-Loop Chilled Water Treatment and Testing Services.

B. BACKGROUND

FEMA has a facility that operates an HVAC system consisting of a cooling tower (open-loop system) and a closed -loop chilled water system. Proper chemical treatment and routine monitoring are required to maintain water quality, prevent corrosion, scaling, and biological growth, and ensure reliable and efficient system operation. Failure to properly maintain these systems may result in reduced equipment life, decreased efficiency, increased operational costs, and potential system failure.

C. OBJECTIVE

The Contractor shall provide FEMA - Region 10 with all labor, supervision, parts, materials, chemicals, tools, personal protective equipment, equipment and transportation to perform comprehensive water treatment and testing services for both the cooling tower (open-loop system) and the chilled water system (closed-loop) Before coming on-site, contact will be made with the Facilities team to ensure FEMA is given a report on every visit with what is completion at the job site.

D. REQUIREMENTS

Contractor to provide water testing and treatment services to include:

- Provide all necessary supervision, personal protective equipment, tools, and material to perform service.
- Water treatment to prevent fouling on metal services, inhibit corrosion, sanitize, clean, disinfect and control biological growths.
- Check and inspect chemical levels and replenish chemicals as needed on a regular basis to ensure the integrity of the system.
- Respond to emergency calls within 4 hours.
- Monthly service shall include:
    a. Conduct water analysis on the cooling towers.
    b. Inspect cooling towers for biological growth, foam, sludge, and proper system operation.
    c. Control equipment is to be checked for calibration and proper operations, probes are cleaned, and adjustments made as test results dictate.
    d. Inspect blow down solenoid valve.
    e. Inspect and repair chemical pumps, injection points, and check valves on all treated equipment.
    f. Ensure water flow is sufficient through all lines.
    g. Furnish and apply all products to retard scale and corrosion in condensing water circuits.
    h. Furnish and apply biocides for the prevention of biological fouling in the circulating water systems.
    i. Visually inspect operation of equipment and make note of any conditions that interfere with proper equipment operations and report to FEMA Facility Manager.
    j. Furnish all test regents, test equipment, and log sheets necessary to properly maintain the treatment program.
    k. Supply copies of computerize reports listing findings and recommendations to FEMA Facility Manager.
    l. Water analysis on closed water circuits.

m. Furnish and apply all products to retard scale and corrosion in closed loop water circuits.
n. Visually inspect operation of equipment and keep the treatment area neat, clean, and orderly.

- Annual service shall include:
  a. Present yearly review of the treatment program, topics to include recommendations, effectiveness of existing program, results of equipment inspections and future consideration.
  b. Perform annual cooling tower cleanout to maintain tower fill, tower nozzles, and distribution decks from scale and debris accumulation.
  c. Flush sumps and basins to remove debris and deliver water samples results to FEMA Facility Manager.

Cooling Tower (Open-Loop System) Services

The contractor shall:

- Perform routine water testing and analysis (including pH, conductivity, and biological activity)
- Maintain proper chemical treatment to control:
  - Scale formation
  - Corrosion
  - Biological growth (including algae and bacteria)
- Inspect cooling tower components for:
  - Biological fouling
  - Sludge accumulation
  - Foam
  - Proper mechanical operation
- Inspect and adjust:
  - Chemical feed systems
  - Injection points
  - Blowdown controls
- Verify proper operation of blowdown systems
- Ensure adequate water flow and distribution
- Perform seasonal startup and shutdown services as required
- Perform annual cooling tower cleaning, including:
- Removal of scale and debris
- Cleaning of basin and distribution components
- Provide biocide treatments as required to maintain system cleanliness

Closed-Loop Chilled Water System Services

The contractor shall:

- Perform routine sampling and testing of closed-loop water chemistry, including:
  - pH levels
  - Corrosion inhibitor levels (e.g., nitrite, molybdate, or equivalent)
  - Glycol concentration (if applicable)
- Maintain proper chemical treatment to:
  - Prevent internal corrosion
  - Minimize scale formation
  - Preserve system integrity
- Inspect system components for:
  - Corrosion
  - Fouling
  - Leaks or system degradation
- Adjust chemical treatment levels as required

- Provide recommendations for system flushing or corrective actions if water quality is outside acceptable limits
- Ensure proper operation of chemical feed systems associated with the closed loop

Monthly Service Requirements
Monthly service shall include at a minimum:
Cooling Tower:
- Water analysis and treatment adjustments
- Inspection of tower condition and operation
- Verification of chemical feed and blowdown systems
- Documentation of findings and corrective actions

Closed-Loop System:
- Water sampling and chemistry analysis
- Adjustment of corrosion inhibitors
- Inspection for signs of corrosion or fouling
- Documentation of system condition and recommendations

Reporting Requirements
The Contractor shall provide a detailed report after each service visit, including:
- Water test results and analysis
- Chemical usage and adjustments
- System condition assessment
- Identified deficiencies
- Corrective actions taken
- Recommendations for improvements

Reports shall clearly distinguish between:
- Cooling tower system findings
- Closed-loop chilled water system findings

The Contractor shall also provide monthly summary reports identifying trends and long-term recommendations.

E. DELIVERABLE AND DELIVERY SCHEDULE

All work shall be completed and reviewed and accepted by the government Contracting Officers Representative (COR) upon completion after treatments. The Contractor must call and give a minimum 1-day notice before coming on-site or will not be allowed to enter the facility.

F. GOVERNMENT-FURNISHED EQUIPMENT AND INFORMATION

Any work or action indicated to be accomplished by the Contractor, including the furnishing of materials therefore unless otherwise specified, shall be at the Contractor's expense. No government-furnished chemicals or treatment materials shall be assumed.

G. PLACE OF PERFORMANCE

The Contractor shall perform work at the following FEMA Region 10 location:

FEMA Federal Regional Center (FRC) Region 10
130 228th ST SW
Bothell, WA 98021

H. PERIOD OF PERFORMANCE

The period of performance to be as stated on contract.

I. SITE SECURITY REQUIREMENTS

Security requirement of this facility grounds include but are not limited to a 100% identification check. All toolboxes, machinery, etc. are subject to random search, and shall not be left unattended in public areas, except by prior approval of the FEMA Region 10 Facility Manager or designee. Such containers and toolboxes shall be locked and secured when unattended and shall be clearly labeled to indicate general contents and a point of contact in case of emergency. The Contractor shall make available and keep a current roster of employees working at the FEMA Region 10 site.

J. SAFETY REQUIREMENTS

In order to provide safety controls for protection of the life and health of employees and other persons; for prevention of damage to property, materials, supplies, and equipment; and for avoidance of work interruptions in the performance of this contract, the Contractor shall comply with all applicable Federal laws and regulations with such additional measures as the government may deem necessary.
All tools and personal protective equipment required to be provided by the Contractor. The Contractor shall ensure all tools, equipment, and machinery are in good working order.

K. PROJECT WORK HOURS AND SITE ACCESS

Working hours of the building occupants designated to assist with this project are from 7:00AM to 4:00PM – Monday through Friday, excluding Federal holidays. Work performed under this contract shall be performed during these hours designated above, unless otherwise approved in advanced by the FEMA Region 10 Facility Manager or designee. The Contractor shall coordinate the contracted and/or related work items with the FEMA Region 10 Facilities Manager or designee. The Contractor shall make request for exception to the work hours indicated above to the FEMA Region 10 Facility Manager or designee, at least 48 hours prior to the proposed deviation from the above work hours.