

## POTABLE WATER TREATMENT SERVICES

### 1. GENERAL

All work performed under this section is subject to the General Requirements and Contract Documents to bidders which form a part of these specifications, and the Contractor shall be responsible for and governed by all the requirements there under. All equipment and supplies to be provided by the contractor

### 2. SCOPE

A. the contractor shall furnish all labor, tools, materials, parts, equipment and testing to:

1. Provide Preventative maintenance Service on two (2) water treatment systems at the South Florida National Cemetery located in the Maintenance Building (Category V, Class D) and Administration Building (Category III, Class C) to ensure all required performance, operation and compliance standards are maintained.
  - a. Provide a Class “A” Certified Operator licensed in the state of Florida to service, operate and maintain a category three (III) water treatment plant.
  - b. Make necessary adjustments to equipment and perform testing to maintain required chlorine dosing level (residual), system pressures and overall performance requirements per applicable permits, laws and regulations. The operator shall test chlorine residual at most distant location in the water system during every site visit and record results in the maintenance logs.
  - c. Preventative maintenance shall be conducted in strict compliance with Chapter 62-555.305 Florida Administrative code and the water treatment system Operation & Maintenance Manual. (1) One copy of the plant’s manufacturer data and O& M manual will be provided at South Florida National Cemetery for the contractor’s reference. The manual shall remain Government property and shall not be removed from the site without written authorization from the Contracting Officer’s Representative (COR). The contractor may make copies of the manual at the contractor’s expense.
  - d. Provide and deliver all required water treatment chemicals to the site and check/fill the chemical feed tanks to appropriate operation levels. All chemicals used on this system shall be NSF certified.
  - e. If the system must be temporarily shut down to complete preventative maintenance service, the contractor shall provide the COR a minimum 24- hour notice. If parts and supplies are to be charged for repairs, a quote will be required to be turned in to the Administrative Officer or Budget Analyst for an increase of funds to the contract. Once funds have been approved and contract has been increased for repairs, maintenance and service can be performed. Upon completion of maintenance service, the operator shall immediately return the system to full operation then notify the COR that the system is available for use.
  - f. The operator shall make (1) one site visit each week to perform preventative maintenance.
  - g. Preventative maintenance shall be in accordance with the following:
2. How the System Works:
  - a. Water is pumped from the well via a multi-stage water pump to the pressurized water storage tank. The pump is turned on/off by a pressure switch that operates between 30-50 psi (“cut-on” pressure) and 50 psi (“cut-off pressure). A 20 psi differential is recommended by the manufacturer to be between “cut-on” and “cut-off”.
  - b. Water travels from the pressure tank to the “untreated water meter”, and then to the 300 gallon contact tank.

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- c. Before the water enters into the contact tank, a chemical feed pump (CFP #1) injects a pre-mixed solutions of chlorine/water into the line entering the tank (injection point fitting – IPF#1)) allowing the chlorine to mix with the water for a period of time to achieve proper disinfection. A switch (Flow-Switch #1) on the outlet piping of the contract tank senses water flow exiting the tank and activates the chemical feed pump, turning it “on and off” depending on water flow through the tank.
  - d. Upon leaving the contact tank, the water enters the first automatic backwashing filter (Filter AG Filter) where suspended solids & any oxidized iron/hydrogen sulfide are removed.
  - e. Next, the filtered water passes through the second automatic backwashing filter (Centaur Carbon Filter) where any residual hydrogen sulfide and/or chlorine are removed.
  - f. The “de-chlorinated/filtered” water then passes through a second switch (Flow Switch #2) which activates a second chemical feed pump (CFP#2) that injects a chlorine solution into the treated water (injection point fitting – IPF#2) for “final” disinfection before distribution and use.
  - g. The treated water passes through a”finished water meter” and is ready for final use.
3. Required Water Treated System Preventative Maintenance:
- a. Test well water before the water treatment equipment to see if water quality has changed from previous month’s test results. Variations in water quality might require adjustments with water treatment chemical feed pumps, chlorine solution mixtures, or filter backwashing frequencies.
  - b. Inspect chemical solution tanks at each chemical feed pump (CFP#1 & CFP #2) and fill with proper mixture of chlorine (sodium hypochlorite) & clean filtered water when solution level is low. This will need to be done on a weekly basis. Proper mixing rations have been posted on top of each solution tank by installer at time of installation and start-up. Please refer to these for correct mixture ration.
  - c. Check operation of flow switch (Flow-Switch #1) to be certain it is operating properly. Clean switch if it fails to operate chemical feed pump (CFP #1) properly. Foreign matter will cause switch to stick and not operate properly. Check weekly and keep clean at all times.
  - d. Remove and clean injection point fitting (IPF#1). Iron & calcium deposits will build up on fitting over time. Clean weekly, and notify the COR when replacement of injection fitting with new fitting is necessary.
  - e. Check operation of flow switch (Flow-Switch #2) to be certain it is operating properly. Clean switch if it fails to operate chemical feed pump (CFP #2) properly. Check weekly and keep clean at all times.
  - f. Remove and clean injection point fitting (IPF#@). Calcium deposits will build up on fitting over time. Clean weekly, and notify the COR when replacement of the injection fitting with new fitting is necessary.
  - g. Open blow-down valve at bottom of 300 gallon contact tank each month for 2-5 minutes to flush contact tank of any sediment/iron buildup that has accumulated at bottom of tank. Failure to do this will allow excess iron to bleed into the system causing iron staining and possible filtration equipment failure.
  - h. Test treated water at required intervals and document per requirements stated in this contract. Maintain proper chlorine residual in finished water at all times as required by the Department of Health regulations.
  - i. Check and clean sediment filter at well head each month.
  - j. Carbon Filter Replacement. Each Carbon Filter will need to have media replacement every 2-3 years. Notify the COR when Carbon media must be replaced. Actual replacement of carbon media will require an additional quote and an increase of contract for parts and services and is not included in this contract.

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4. Additional Equipment Maintenance:
  - a. Sodium Water treatment system (Administration Building): Monitor , maintain and supply salt for Sodium water treatment system to maintain accurate salt levels in the system according to manufacturer's suggestions to keep the drinking water system properly cleaned.
5. Provide Water Monitoring and Analysis:
  - a. Water sampling shall be performed by the certified operator.
  - b. Measurements and field testing shall be in accordance with procedures identified in the Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP 001/01, Rule 62-160.800 and 62-550.550(1), F.A.C
  - c. Water samples shall be analyzed by a laboratory certified by the Department of Health to perform drinking water analysis.
  - d. Water samples may be taken at any time during the respective quarterly or annual time periods; however samples shall not be taken less than (3) thirty days apart.
  - e. If analysis results show that the system has exceeded maximum contaminant levels (MCL) for Nitrates, Nitrites or received a positive result for the bacteriological test, the contractor shall notify the COR or Contracting Officer immediate, verbally and in writing.
  - f. Required Analysis:
    - a. (1) Sample Nitrates & Nitrites-Annually
    - b. (2) Samples Microbiological (finished water)-Quarterly
    - c. (4) Sample Microbiological (Raw Water at Source)-Quarterly
6. Provide Documentation & Recordkeeping:
  - a. Operations and Maintenance (O&M) logs shall be maintained at the water treatment plant site at all times. O & M Logs and laboratory results forms shall be maintained in a bound condition; three ring binder, spiral binder or other method approved by the COR.
  - b. O & M logs shall contain the date of site visit, noted deficiencies, list of maintenance items inspected or performed and the license number and printed name of the operator conducting the maintenance/sampling. The logs shall also contain the date and results of all sampling and water analysis performed. If results are reported on a laboratory form, the logs shall reference the corresponding laboratory form. Copies of all laboratory forms shall be maintained with the O & M logs in an approved binding.
  - c. DOH-certified laboratory reporting format shall be per 62-550.730(1) (b) F.A. C.
  - d. Monthly and within (10) ten days after each month of system operations, the contractor shall complete a monthly report in addition to the maintenance log entries using Florida Department of Environmental Protection form 62-555.900 (3), "Monthly Operation Report for PWS's Treating Raw Ground Water or Purchased Finished Water" and add it to the bound maintenance log book.
7. After Normal Hours On-Call/Emergency Service:
  - a. The Contractor shall establish and maintain a point-of-contact to receive emergency calls from the COR. The point-of-contact shall be available on a 24-hour basis including during weekends, Federal Holidays and after normal hours of operation. The Contractor shall provide telephone and cell phone numbers for emergency and/or after hour situations. Service shall be completed as expeditiously as circumstances allow or within (24) hours upon initial emergency call.

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### 3. SERVICE LOCATION:

South Florida National Cemetery  
6501 S State Road 7  
Lake Worth, FL 33449

### 4. PROJECT INFORMATION:

- A. Period of Performance: Contract shall be for a base, from date of award through March 31<sup>st</sup>, 2019 and up to four option periods, if exercised.
- B. Work Hours: All work shall be performed between the normal business hours of 0800 am to 430 pm, Monday thru Friday, excluding Federal Legal Holidays. Work may be performed on weekends provided arrangements are made in advance with the COR at no additional cost to the Government. The following terms have the following meaning:

Normal Work Hours: Monday through Friday, 800am to 430pm, excluding Holidays.

Federal Holidays: The Federal Holidays observed by the Federal Government are:

New Year's Day	1 January
Martin Luther King's Birthday	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veterans Day	11 November
Thanksgiving Day	Forth Thursday in November
Christmas Day	25 December

When one (1) of the holidays falls on a Sunday, the following Monday shall be observed as a Federal Holiday. When a holiday falls on a Saturday, the preceding Friday shall be observed as a Federal Holiday by U.S. Government Agencies. Also, included would be any day specifically declared by the President of the United States of America as a Federal Holiday.

5. LICENSE AND PERMITS: contractors shall have a current State of Florida, Class "A" water treatment plant certified operator license PRIOR to submission of bid. The Contractor shall provide to the contracting officer copies of the following with submission of the bid/proposal:

- Certified Operator: Name, State of Florida Certified Operator's License(s), Class "A", Category III Water Treatment Plant (for each proposed operator)
- Laboratory: Department of Health Laboratory Certification to perform drinking water analysis
- NSF Certification for all water treatment chemicals to be used.

### 6. SPECIFICATIONS:

- Scope of Work

## PLANT MITIGATION SERVICES SOP

- b. Potable Water Treatment System Operation & Maintenance Manual (Provided for contractor's use, but shall remain Government property and shall not be removed from the site.)

### 7. STANDARDS AND REGULATIONS BY REFERENCE:

- a. Chapter 62-555 Florida Administrative Code
- b. Chapter 62-550 Florida Administrative Code

8. Standards of Conduct: The National Cemetery Administration honors veterans with final resting place and lasting memorials that commemorate their service to our Nation. National Cemeteries are national shrines. The standards of work, appearance, and procedures performed by the contractor at the cemetery shall reflect this nations concern for those interred there. Due to the sensitive mission of the cemetery, contractor personnel must exercise and exhibit absolute decorum, composure, and stability at all times.

- a. The burial activities at a National Cemetery shall take precedence over contract activities. The contractor shall cooperate and coordinate with the Cemetery Director in arranging scheduled activities to cause the least possible interference with cemetery activities in actual burial areas. Noise during the interment services shall not disturb the service. Trucks and workmen/workwomen shall not pass through the service area during this period.
- b. The contractor shall cease work operations if necessary to ensure that no contract work causes any funeral ceremony, procession or visitation be delayed, altered, or otherwise impacted in such a way that the dignity, serenity or security of that event is compromised. The contractor shall coordinate with the COR daily to schedule work around interment services.
- c. The Contractor is required to discontinue his work sufficiently in advance of Easter Sunday, Mother's Day, Father's Day, Memorial Day, Veteran's Day and Federal holidays to permit the contractor to clean up all areas of operation adjacent to existing burial plots before these dates. Cleaning up shall include the removal of all equipment, tools, materials, and debris and leaving the areas in a clean, neat condition.
- d. Workmen/Workwomen are subject to rules of the Cemetery applicable to their conduct. While on site at the National Cemetery, contractor personnel shall be required to adhere to the following standards of dress and conduct while performing work in the national cemetery. These standards and regulations are enforceable under the Title 38, U.S.C. , Section 218
- e. Contractor personnel appearance and conduct shall be professional and unobtrusive at all times. Shirts and full length pants must be worn at all times.
- f. Smoking is not allowed in any building or section at the National Cemetery.
- g. The playing of radios, cassette recorders, etc., is prohibited on site or in buildings (unless otherwise instructed). The contractor's work force is governed by the same rules governing cemetery employees. All individuals failing to comply will be removed from the site.
- h. Sexual harassment will not be tolerated and the offending individual(s) will be removed from the site immediately.
- i. Contractor personnel shall not sleep on cemetery grounds, sit or stand on installed grave markers, or put, place or lean equipment or material on grave markers.
- j. Questions from cemetery visitors shall be politely referred or directed to cemetery personnel.
- k. The contractor shall ensure that all employees behave with appropriate decorum, courtesy, and respect while within the cemetery or at its perimeter or entrances. Shouting, cursing, angry outbursts, sleeping, intoxication, drug use, unsafe driving of private or company vehicles, and/or violence or criminal acts of any kind will not be tolerated and is cause for immediate removal from the cemetery.
- l. The contractor and subcontractors shall not fuel equipment in grass/turf areas. Petroleum based products will damage the grass/turf. Contractor shall bear all costs associate with removing any contaminated soil as a result of fueling in grass/turf areas and shall re-sod the area.

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(END OF WORK STATEMENT)