

DEPARTMENTAL INPUT

CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

☒ New
 ☐ OTR
 ☐ Sole Source
 ☐ Bid Waiver
 ☐ Emergency
 Previous Contract/Project No. 7273-0/18
☐ Contract
☐ Re-Bid
 ☐ Other
 LIVING WAGE APPLIES: ☐ YES ☒ NO
 Requisition No./Project No.: FB-00629
 TERM OF CONTRACT 5 YEAR(S) WITH 2 YEAR(S) OTR

Requisition /Project Title: Air Emission Testing

Description: The purpose of this solicitation is to establish a contract for the purchase of air emission testing services in conjunction with the County's needs on an as needed when needed basis.

Issuing Department: WASD
 Contact Person: N. VASILYEVA
 Phone: 305-375-4725
 Estimate Cost: 327,065.00
 Funding Source: GENERAL FEDERAL OTHER
Proprietary
Funds

ANALYSIS

Commodity Codes:	<u>96169</u>				
Contract/Project History of previous purchases three (3) years Check here <input type="checkbox"/> if this is a new contract/purchase with no previous history.					
	<u>EXISTING</u>	<u>2ND YEAR</u>	<u>3RD YEAR</u>		
Contractor:					
Small Business Enterprise:					
Contract Value:	\$	\$	\$		
Comments:					

Continued on another page (s): ☐ YES ☒ NO

RECOMMENDATIONS

	Set-aside	Sub-contractor goal	Bid preference	Selection factor
SBE				

Basis of recommendation:

Signed: <u>NATALYA VASILYEVA</u> 	Date sent to SBD: <u>08/25/2017</u> Date returned to DPM: <u></u>
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SECTION 3 – TECHNICAL SPECIFICATIONS

3.1 SCOPE OF WORK

Conduct Air Emission Compliance Testing (stack testing) in accordance with the U.S. Environmental Protection Agency (EPA) and State of Florida Department of Environmental Protection (FDEP) requirements and regulations.

Services include sampling, testing and reporting as follows:

A. Sampling

1. Successful Bidder shall provide all labor and materials for sample collection and analysis, data reduction and preparation of emission test reports that are suitable for submission to the regulatory agencies.
2. Sampling equipment, techniques, analytical procedures and quality control provisions must adhere to currently specified approved State of Florida Department of Environmental Protection and Environmental Protection Agency (EPA) methods.

B. Testing

1. All testing and reporting must meet the current requirements set by the FDEP at the time of testing and submittal.
2. Testing will be performed on facility emission units as required by the respective facility operating or construction permits issued by the FDEP or by Florida Administrative Code (F.A.C.) Rules.
3. Principle test methods for the Engine Driven Pumps, Cogeneration, Standby and Emergency Generator Units will be EPA Method 7E (Nitrous Oxide Emissions from stationary source), EPA Method 9 (Visible Emissions), and EPA Method 10 (Carbon Monoxide), EPA Method 25A (Total Hydrocarbon), Methods 25A and 18 VOC (Volatile Organic Compounds), and EPA Method 320 or 323 (Formaldehyde). Supplemental evaluations to permit assessment of mass emission rates for units with appropriate sampling ports, will include EPA Method 1 (or 1A) (Sampling port location, number of traverse points) and Method 2 (or 19) (Stack Gas Flow Rate), EPA Method 3 (Stack Gas Molecular Weight), EPA Method 4 (of Method 320) (Moisture Content), and EPA Method 5 (Particulate Matter).
Standby and diagnostic testing include any standby time and diagnostic testing services that are associated with and can be performed with these principle test methods.

C. Reporting

1. After completion of the required testing the successful Bidder shall provide the following:
 - a. **Draft Air Compliance Emissions Test** report, including as a minimum, the information required by Rule 62-297.310(8)(c) 1 through 21 of the F.A.C. The Test report shall be available within twenty-eight (28) calendar days after the last sampling run of each test is completed.
 - b. Final Air Compliance Emissions Testing report shall be available within thirty-five (35) calendar days after the last sampling run of each test is completed. Each required final Air Compliance Emissions Testing report shall be signed and certified by the report preparer.

Should FDEP determines the submitted test report requires additional information, corrections, or tests were improperly conducted or improperly computed, additional corrected report pages or complete/revised reports shall be provided at no additional cost to the County.

D. Mobilization and Demobilization

1. Mobilization and demobilization costs will be all inclusive of personnel, equipment, expendable materials, necessary set-up, all associated travel and any other supplies necessary to complete testing services.
2. Only single mobilization and demobilization cost will be accepted per request to test for each specific facility location over a continuous period of time, regardless of number of emission units (engines, kilns) included in the request.

3.2 LIST OF LOCATIONS:

1. Hialeah/Preston Water Treatment Plant (700 West 2 Avenue, Hialeah, FL, 33010). Facility ID#0250281

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Lime Recalcining Plant#1:** PM (particulate matter) emissions, EPA method 1 thru 5, NOx emissions, EPA method 7E and visible emissions kiln, silo, exhaust condensate drain vent and diffusers, EPA method 9. Testing is currently required annually.
- **Diesel Engine Driven Emergency Generator Sets:** NOx Emissions, EPA Method 7E and Visible Emissions, EPA Method 9. Testing is currently required annually.
- **Diesel Engine Driven Generator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. In the event that any units are reconstructed and re-categorized to non-emergency use, this performance testing may be required semiannually after initial testing.

2. Alexander Orr, Jr. Water treatment plant (6800 SW 87 Avenue, Miami, FL, 33173). Facility ID#0250314

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Lime Recalcining Plant#2:** PM (particulate matter) emissions, EPA method 1 thru 5, NOx emissions, EPA method 7E and visible emissions kiln, silo, exhaust condensate drain vent and diffusers, EPA method 9. Testing is currently required annually.
- **Natural Gas Engine Driven High Service Water Pumps:** NOx emissions, EPA method 7E and visible emissions, EPA method 9. Testing is currently required only at the request of the FDEP and other regulatory agencies.
- **Natural Gas Engine Driven High Service Water Pumps:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of

the control device and percent reduction achieved by the control device. This performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

- **Diesel Engine Driven Emergency and Standby Generator Sets:** NO_x Emissions, EPA method 7E and visible emissions, EPA Method 9. Testing is currently required annually.
- **Diesel Engine Driven Generator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. In the event that any units are reconstructed and re-categorized to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

3. Central District Wastewater Treatment Plant (3989 Rickenbacker Causeway on Virginia Key, Miami, FL, 33149). Facility ID#0250476

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Digester Gas Engine Driven Cogenerator Sets:** stack gas flow rate, EPA Method 1 and 2; stack gas molecular weight, EPA method 3; moisture content, EPA method 4; NO_x emission, EPA method 7E and visible emissions, EPA method 9. Testing is currently required annually.
- **Digester Gas Engine Driven Cogenerator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the exhaust. In the event that any units are reconstructed, replaced, or new units added, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.
- **Digester Gas Engine Driven Cogenerator Sets:** Select the sampling port location and the number of traverse points, using Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i); determine exhaust flow rate using Method 2 or 19 of 40 CFR part 60; moisture content using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03; Simultaneous measurement of O₂ (oxygen) using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005); and VOC (volatile organic compounds), using Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 to determine the VOC concentrations corrected to 15 percent O₂ of the emissions. Results of this test consist of the average of three 1-hour or longer testing runs. In the event that any units are reconstructed, replaced, or new units added, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.
- **Diesel Engine Driven Emergency Generator Sets:** NO_x emissions, EPA method 7E and visible emission, EPA method 9. Testing is currently required annually.
- **Diesel Engine Driven Generator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005

or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. In the event that any units are reconstructed and re-categorized to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

4. South District Wastewater Treatment Plant (8950 SW 232 Street, Miami, FL, 33190). Facility ID#0250520

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Digester/Landfill/Natural Gas Engine Driven Cogenerator Sets:** Stack gas flow rate, EPA method 1 and 2; stack gas molecular weight, EPA method 3; moisture content, EPA method 4; NO_x emissions, EPA method 7E and visible emissions, EPA method 9. Testing is currently required annually. Note: An Air Construction Permit has been issued for two of the three existing engine driven cogenerator sets to be removed and for four new engine driven cogeneration sets to be added at this location.
- **Digester/Landfill/Natural Gas Engine Driven Cogenerator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the exhaust. Note: This performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing for the four new engine driven cogeneration sets to be added at this facility. This performance testing may also be required in the event that any engine driven cogeneration units are reconstructed, replaced, or new units added.
- **Digester/Landfill/Natural Gas Engine Driven Cogenerator Sets:** Select the sampling port location and the number of traverse points, using Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i); determine exhaust flow rate using Method 2 or 19 of 40 CFR part 60; moisture content using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03; Simultaneous measurement of O₂ (oxygen) using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005); and VOC (volatile organic compounds), using Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 to determine the VOC concentrations corrected to 15 percent O₂ of the emissions. Results of this test consist of the average of three 1-hour or longer testing runs. Note: This performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing for the four new engine driven cogeneration sets to be added at this facility. This performance testing may also be required in the event that any engine driven cogeneration units are reconstructed, replaced, or new units added.
- **Diesel Engine Driven Emergency Generator Sets:** NO_x emissions, EPA method 7E and visible emissions, EPA Method 9. Note: Currently, this annual testing is only required when an emission unit is operated more than 400 hours in a year and prior to permit renewal.
- **Diesel Engine Driven Generator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. Note: In the event that any units are reconstructed and re-categorized from emergency to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

5. North District Wastewater Treatment Plant (2575 NE 151 Street, Miami, FL, 33160). Facility ID#0250600

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Diesel Engine Driven Emergency Generator Sets:** NO_x emissions, EPA method 7E and visible emissions, EPA method 9. Currently annual testing is only required when an emission unit is operated more than 400 hours in a year and prior to permit renewal.
- **Diesel Engine Driven Generator Sets:** Measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the percent reduction of CO concentrations of final emissions and percent reduction achieved by the control device. Note: In the event that any units are reconstructed and re-categorized from emergency to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

6. Sewage Pump Station Number One, 4th Street (390 NW North River Drive, Miami, FL, 33128). Facility ID#0250767

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Diesel Engine Driven Sewage Pumps:** NO_x emissions, EPA method 7E and visible emissions, EPA method 9. Currently testing is only required at request of the FDEP and other regulatory agencies.
- **Diesel Engine Driven Sewage Pumps:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. This performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

7. Other Miami-Dade County Treatment Plans and Various Water Pumping and Sewage Transmission Facilities

Location will require Mobilization/Demobilization services and following Air Emission Testing:

- **Engine Driven Pump and Generator Sets:** Visible emissions, EPA method 9. Currently testing is only required at request of the FDEP and other regulatory agencies.
- **Engine Driven Pump and Generator Sets:** NO_x emissions, EPA method 7E and visible emissions, EPA method 9. Currently testing is only required at the request of the FDEP and other regulatory agencies.
- **Engine Driven Pump and Generator Sets:** Simultaneous measurement of the O₂ (oxygen) and CO (carbon monoxide) at the inlet(s) and outlet(s) of the control device (oxidation catalyst) using ASTM D6522-00 (2005 or later as incorporated by reference in Title 40 Part 60 Section 63.14) or EPA Method 10 to determine the CO concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. In the event that any units are reconstructed and re-categorized to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.
- **Four Stroke Rich Burn (4SRB) Engine Driven Pump and Generator Sets:** Select the sampling port location and the number of traverse points, using Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i); Simultaneous measurement at the inlet(s) and outlet(s) of the control device (Non-Selective Catalytic Reduction - NSCR) of O₂ (oxygen) using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005); moisture content using Method 4 of 40 CFR part 60, appendix A, or Test Method

320 of 40 CFR part 63, appendix A, or ASTM D 6348-03; and formaldehyde, using Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique) to determine the formaldehyde concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and percent reduction achieved by the control device. Results of this test consist of the average of three 1-hour or longer testing runs. Note: In the event that any units are re-categorized from emergency to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.

- **Four Stroke Rich Burn (4SRB) Engine Driven Pump and Generator Sets:** Select the sampling port location and the number of traverse points, using Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i); Simultaneous measurement at the inlet(s) and outlet(s) of the control device (Non-Selective Catalytic Reduction - NSCR) of O₂ (oxygen) using Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005); moisture content using Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03; and Total Hydrocarbons (THC), using Method 25A of 40 CFR part 60, appendix A. to determine the THC concentrations corrected to 15 percent O₂ (dry basis) in the inlet and outlet emissions of the control device and the percent reduction achieved by the control device. Results of this test consist of the average of three 1-hour or longer testing runs. Note: In the event that any units are re-categorized from emergency to non-emergency use, this performance testing may be required every 8,760 hours of engine operation or every 3 years, whichever comes first after initial testing.