



# Upper Occoquan Service Authority

*Leader in Water Reclamation and Reuse*

14631 COMPTON ROAD, CENTREVILLE, VIRGINIA 20121-2506  
(703) 830-2200

## TO ALL IFB RECIPIENTS:

For UOSA IFB 22-02 Digester Gas Engine Generator and Diesel Gas Engine Generator Emissions Testing

## SUBJECT: Addendum #2

The above numbered solicitation is amended as set forth below. The hour and date specified for receipt of offers:

☐ is not extended

☒ is extended To September 8, 2021 2:00 PM

**OFFERORS MUST ACKNOWLEDGE** receipt of this Addendum by one of the following methods:

- a. By acknowledgement of this Addendum on Submission Form submitted with the proposal;
- b. By referencing its receipt in your Transmittal Letter

If by virtue of this Addendum you desire to change a proposal already submitted, such change may be made by letter, provided it includes reference to the solicitation and this Addendum and is received prior to the due hour and date specified.

## DESCRIPTION OF ADDENDUM:

Due to September 6th, 2021 (Labor Day) being a holiday, IFB 22-02 due date shall be extended to the date referenced above.

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*All other Terms, Conditions, Tables, Charts and Specifications, and Drawings not otherwise changed remain as originally stated or as shown.*

## ISSUED BY:

Upper Occoquan Service Authority

A handwritten signature in black ink, appearing to read 'William Gaskins', is written over a horizontal line.

William Gaskins, Materials Manager

09/08/2021  
Date



# Upper Occoquan Service Authority

*Leader in Water Reclamation and Reuse*

14631 COMPTON ROAD, CENTREVILLE, VIRGINIA 20121-2506  
(703) 830-2200

August 24, 2021

**TO ALL IFB RECIPIENTS:**

**For UOSA IFB 22-02 Digester Gas Engine Generator and Diesel Gas Engine Generator Emissions Testing**

**SUBJECT: Addendum # 1**

The above numbered solicitation is amended as set forth below. The hour and date specified for receipt of offers:

☒ is not extended

☐ is extended

**OFFERORS MUST ACKNOWLEDGE** receipt of this Addendum by one of the following methods:

- a. By acknowledgement of this Addendum on Submission Form submitted with the proposal;
- b. By referencing its receipt in your Transmittal Letter

If by virtue of this Addendum you desire to change a proposal already submitted, such change may be made by letter, provided it includes reference to the solicitation and this Addendum and is received prior to the due hour and date specified.

**DESCRIPTION OF ADDENDUM:**

**To provide answers to all questions received at this point. Future questions submitted before the Deadline for questions will be answered in subsequent addendum. Q&A provided as Attachment A**

*All other Terms, Conditions, Tables, Charts and Specifications, and Drawings not otherwise changed remain as originally stated or as shown.*

**ISSUED BY:**

Upper Occoquan Service Authority

A handwritten signature in black ink, appearing to read 'William Gaskins', is written over a horizontal line.

William Gaskins, Materials Man

08/24/2021

Date

1. Once the Jenbacher digester gas engine is tested, how many more times will the trailer have to be unplugged and relocated to the other 3 engines?

One relocation. We usually do the 3 Generators first and then relocate once to the CoGen Unit at the Digester Complex. The generators take one day and the Cogen takes one day (or less). There is one day for setup, one day for Generators, one day for Cogen, and one day for break down. Sometimes this can be compressed to 3 days if all goes well.

2. What is the distance (feet) from the parked trailer location to required power, and stack sampling locations?

Power is located less than 50ft and exhaust stack is around 100 feet.

3. Same question for the 3 engines.

Less than 100 feet.

4. Once at the engine locations, can more than one engine be tested at a time, assuming we only have to test the outlet location?

We like to have each of the 3 generators tested separately. Usually this can be done in a single day.



# Upper Occoquan Service Authority

## Invitation for Bids # 22-02

### DIGESTER GAS ENGINE GENERATOR AND DIESEL GAS ENGINE GENERATOR EMISSIONS TESTING

Issued By:

**UOSA Purchasing Department**

Administration Building

14631 Centreville, Virginia 20121-2506

703-830-2200 | [purchasing@uosa.org](mailto:purchasing@uosa.org) | <http://www.uosa.org>

Schedule:

Date Issued:	Monday, August 9, 2021 11:00 AM
Optional Site Visit:	Schedule before Deadline for Questions
Deadline for Questions:	Wednesday, August 25, 2021 5:00 PM
Bids Must be Received On Or Before:	Monday, September 6, 2021 2:00 PM

NOTICE: Firms who have received this solicitation package from a source other than UOSA's Purchasing Office should immediately contact UOSA's Purchasing Department and provide their name and mailing address in order that amendments to this solicitation or other communications can be sent to them. Firms who fail to notify the Purchasing Office with this information assume complete responsibility in the event that they do not receive communications prior to the closing date.

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## **SECTION 1 – SUMMARY INFORMATION AND SUBMISSION OF BIDS**

### **1.1 Introduction**

The Upper Occoquan Sewage Authority, doing business as The Upper Occoquan Service Authority (UOSA), is a public body politic and corporate organized under the Virginia Water Authorities Act. UOSA was created by the concurrent actions of its member jurisdictions and chartered by the State Corporation Commission of Virginia on April 1, 1971. The member jurisdictions include the Counties of Fairfax and Prince William and the Cities of Manassas and Manassas Park. UOSA is located in Fairfax County and currently employs approximately 180 individuals. UOSA currently owns and operates an advanced water reclamation plant with a capacity of 54 million gallons per day (“mgd”) and a regional system of interceptor sewer lines, pump stations and force mains that deliver sewage from the four member jurisdictions to the treatment plant.

### **1.2 Objective**

The Upper Occoquan Service Authority (UOSA) is seeking the services of a qualified contractor to perform an emissions testing program on a digester gas engine-generator set and three stationary reciprocating internal combustion engines located at the UOSA facility in Centreville, VA. in accordance with the requirements listed in Section 2, Scope of Work. The purpose of the testing is to evaluate the engine emissions with respect to the performance test requirements of 40 CFR 60, Subpart JJJJ for Spark Ignition (SI) Internal Combustion Engines (ICE) and 40 CFR 63, Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE). During the contract period UOSA will require the air emission performance test on the cogeneration unit (Subpart JJJJ) every 8760 hours of operation or every 11- 13 months whichever comes first and the three generators (Subpart ZZZZ) every three years from initial testing.

### **1.3 Contract Award**

- A. A contract will be awarded to the lowest responsive and responsible Bidder as delineated in this IFB and will be based on the total bid amount as indicated on the Bid Summary Sheet.
- B. UOSA reserves the right to reject any and all bids, in whole or in part, to waive minor informalities and delete items prior to making the award, whenever it is deemed in the sole opinion of UOSA to be in its best interest.
- C. The contract may be awarded to multiple vendors if deemed to be in the best interest of UOSA.
- D. UOSA reserves the right to seek additional bids from other contractors, assign purchase orders to other contractors, or perform the work using UOSA personnel based on its sole discretion, in consideration of its knowledge and/or evaluation of Contractors’ qualification, expertise, capabilities, performance record, availability, cost, delivery time and any other factors as may be pertinent to the project, if deemed to be in the best interest of UOSA.

### **1.4 Pre-Bid Meeting and Site Inspections**

There will not be a scheduled pre-bid meeting, however, Bidders may schedule an individual site visit prior to the Deadline for Questions in order to tour the facility and inspect the locations where the work will be performed. Additionally, the tour will allow potential Bidders an opportunity to present questions and obtain clarification relative to any facet of this solicitation.

The site visit and inspection is not mandatory and is not a pre-requisite for submitting bids. However, failure to inspect the site will not relieve the Bidder from the responsibility for ascertaining conditions at the site and claims as a result of failure to inspect the job site will not be considered by UOSA. UOSA

requires that all questions submitted during the site tour be submitted to UOSA Purchasing Department in writing by the (Deadline for Questions) date shown on the cover sheet of this document. All questions will be answered via an Addendum provided to all Bidders who have requested this IFB.

If you wish to schedule a site tour please contact William Gaskins, will.gaskins@uosa.org or 703-227-0232. The tour must be scheduled prior to the deadline for questions listed on the first page of this solicitation.

## **1.5 Period of Contract**

- A. The term for any contract resulting from this solicitation shall be for five (5) one (1) year periods from date of execution.
- B. The emissions testing for the cogeneration unit will be required every 8760 hours of operation. Historically the cogeneration unit reaches 8760 hours of operation every 11-13 months. UOSA anticipates the testing frequency to remain within a 11-13 month time period but the actual testing frequency may vary depending on the actual runtime of the cogeneration unit. The cogeneration unit and the generators next anticipated emissions testing timeframe will be October 2021. After that, the cogeneration unit will be tested annually in the fall and the generators will be tested every three years in the fall. Dates and times are an estimation and can be changed at the sole discretion of UOSA.
- C. Renewal of the Contract will be at the sole decision of UOSA and will be based upon execution of the Contract and work performed during the prior contract year. Renewal will be based on prior performance and acceptance by UOSA of any proposed rate increases as allowed per the terms and conditions contained herein (see Attachment A), or as agreed to between the parties prior to any contract extension.

## **1.6 Bidder's Representation**

- A. Bidder has read and understands the Bidding Documents and its Bid is made in accordance therewith.
- B. The Bidder shall make a careful examination to determine accuracy of the specifications, and shall be satisfied as to the quantity and quality of materials and workmanship required for the Work. UOSA shall not be held responsible for any omissions.
- C. Its Bid is based upon all of the materials, systems, and equipment required by the Bidding Documents without exception.

## **1.7 Questions and Communications**

All contact between prospective Bidders and UOSA with respect to this solicitation should be in writing through the Purchasing Office. Questions concerning this solicitation are due by the deadline for questions shown on the cover page. Misinterpretation of specifications shall not relieve the Contractor(s) of responsibility to perform. Substantive questions must be submitted in writing via mail, e-mail, fax, etc., to the attention the UOSA Purchasing Department (see contact information on the cover of this document). Questions submitted after the deadline will not be answered. All properly submitted substantive questions will be responded to in writing, in the form of an addendum to the solicitation. Failure to submit questions or to otherwise seek clarification(s) by the deadline for submitting questions shall constitute a waiver of any potential claim by the Bidder/contractor.



Communications between prospective Bidders, their agents and/or representatives and any member of UOSA other than as authorized herein, concerning this solicitation are prohibited. In any event and in all circumstances, unauthorized communications cannot be relied upon.

## 1.8 References

Include not less than four references for servicers of similar scope and size as identifies in this IFB. References must include the following minimum information: contact persons, telephone numbers and email addresses and location where the services are being/were performed. All references must be within the last five years. UOSA reserves the right to contact additional references which are known to UOSA but may not have been provided by the bidder.

## 1.9 Bid Submittal Requirements

All bids should be submitted in the format provided herein. Failure to use the attached Bid Summary Sheet (Attachment E) will be at the bidder's risk and peril. If in the opinion of the Purchasing representative responsible for this procurement the bidder failed to provide all necessary information either on the attached forms or some other forms, the bid shall be declared to be non-responsive. By submitting a bid in response to this solicitation, bidder agrees to be bound by the terms, conditions and specifications contained herein along with any addenda to this solicitation. Bidder shall agree to provide to UOSA the proposed protocol, as outlined herein, and a firm fixed cost for services for performing the required emission testing and generating the performance test report.

Bidders shall provide the following completed documents in the order listed herein:

1. Attachment B – Solicitation Response Form
2. Attachment C – Bidders Qualifications
3. Attachment D – References
4. Attachment E – Bid Summary Sheet
5. A detailed written description of the proposed emission testing protocol and an outline of the final emission test report.

## 1.10 Instructions for Submitting Bids

The deadline for submitting Bids is shown on the cover sheet. Bidders mailing bids should allow sufficient mail delivery time to insure timely receipt by the Purchasing Department. Bids will be opened in accordance with the provisions of the Virginia Public Procurement Act.

No faxed, emailed or electronic format Bids will be accepted. Bids must be submitted in sealed envelopes or packages, and identified as follows:

From:		
Name of Bidder		Due Date
Street		IFB No.
City, State Zip		IFB Title

**1.11 Late Bids**

Bids or unsolicited amendments to Bids arriving after the closing date and time will not be considered. Bids received after the bid submission deadline will be returned to the Bidder unopened providing that sufficient bid identification information is shown on the outside of the Bid envelope.

**1.12 Net Prices**

All bid prices must be net and shall include, **without exception**, all charges that may be imposed in fulfilling the terms of this Invitation and any resulting contract. All bid prices shall be FOB Destination, freight fully prepaid and allowed, subject only to any discounts for prompt payment that may be provided in this invitation. The prices offered, should they be accepted and a Contract awarded, shall remain firm for the initial contract period. Any future price increases are subject to the terms specified in [Article IV - Pricing, Item 4.2 - Price Firm Period and Cost Increases].

**End Section 1**

## SECTION 2 – SCOPE OF WORK

### 2.1 General

The Upper Occoquan Service Authority (UOSA) is seeking to retain a contractor to perform an emissions testing program on a digester gas engine-generator set and three diesel fuel emergency generator set located at the UOSA facility in Centreville, VA. The purpose of the testing is to evaluate the engine emissions with respect to the performance test requirements of 40 CFR 60, Subpart JJJJ for Spark Ignition (SI) Internal Combustion Engines (ICE) and 40 CFR 63, Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE).

Under Subpart JJJJ, the performance testing requires measurement of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC), and under Subpart ZZZZ performance test requires the emission measurement of CO. Table 2-1 summarizes the emission testing scope of work for each generator set. Example calculations are provided in Attachment I.

**Table 2-1**  
**Emission Testing Scope of Work**

Unit and Fuel	Load Condition	Emission Parameters and Test Methods				
		NO <sub>x</sub>	CO	VOC <sup>2</sup>	Volumetric Flow Rate	Comments
One Jenbacher Engine  Digester Gas	90-100% of Peak <sup>1</sup>	EPA 7E	EPA 10	EPA 25A/18	EPA 1, 2, 3A, and 4	40 CFR 60, Subpart JJJJ Applicable emission standards are:  NO <sub>x</sub> = 2.0 g/Hp-hr <u>or</u> 150 ppm <sub>dv</sub> @ 15% O <sub>2</sub>  CO = 5.0 g/Hp-hr <u>or</u> 610 ppm <sub>dv</sub> @ 15% O <sub>2</sub>  VOC = 1.0 g/Hp-hr <u>or</u> 80 ppm <sub>dv</sub> @ 15% O <sub>2</sub>
Each of One ALCO and Two Caterpillar Engines  Diesel Fuel	90-100% of Peak <sup>1</sup>	N/A	EPA 10	N/A	Volumetric Flow Rate is N/A.  EPA 3A for O <sub>2</sub> correction	40 CFR 63, Subpart ZZZZ Applicable emission standards are:  CO = 23 ppm <sub>dv</sub> @ 15% O <sub>2</sub> <u>or</u> reduce CO emissions by 70 percent or more

1 Or maximum achievable load based on ambient conditions the day of testing.

2 Non-Methane VOC (NMVOC).

## 2.2 Description of Engines

The Upper Occoquan Service Authority (UOSA) operates three emergency/load-shedding generators and one cogeneration unit.

The UOSA digester gas-fired combined heat and power cogeneration internal combustion engine (CHPICE) consists of a General Electric (GE) Jenbacher ICE, engine type J 316 GS-C82 (**Subpart JJJJ Engine**), cogeneration unit with a maximum rated heat input capacity of 7.838 MMBtu/hr and a maximum rated output of 1175 BHP (848 KW) and has a generating capacity of 848 kilowatts (kW) at 1175 brake horsepower (BHP).

The three generators (gensets) consist of one Alco Model 18-251 diesel Genset No. 1 (GEN: Q-M-1A) and two Caterpillar Model 3608 Genset Nos. 2 and 3 (GEN2: Q-M-001 & GEN3: Q-M-002)(**Subpart ZZZZ Engines**). Each is rated at 2.5 megawatts (MW). The Alco genset is rated at 3,350 horsepower (HP) and the two Caterpillar gensets are each rated 3,395 BHP. The Alco 18-251 was installed in 1977 while the two Caterpillar gensets were installed in 2004. Each of these gensets is equipped with diesel oxidation catalyst systems (DOCS) for the control of carbon monoxide emissions. All three generators are used for both emergency and load shedding.

## 2.3 Testing Locations

### 2.3.1 One 40 CFR 60, Subpart JJJJ Engine-Generator (Cogeneration Unit):

Two test ports were installed 90° apart on the 14" ID exhaust pipe. The ports are positioned approximately 12' (10.3 diameters) downstream from a flow disturbance and 3' (2.6 diameters) upstream from a bend in the exhaust pipe directing the flow to a carbon dioxide compressor station. A third test port for the reference method analyzers is located 3' upstream from the first set and spaced at 45°. Three points shall be selected for the preliminary O<sub>2</sub> traverse. See Attachment F for a schematic of the engine exhaust test location.

### 2.3.2 One 40 CFR 63, Subpart ZZZZ Engine-Generator (Gensets):

Outlet flue gas sampling will occur after the diesel oxidation catalyst system (DOCS) in a horizontal section of steel stack with an inside diameter of 22 inches. Four test ports, spaced 90 apart, are located 44 inches (2.0 duct diameters) from the nearest upstream disturbance and 11 inches (0.5 duct diameters) from the nearest downstream disturbance. It is anticipated that only two (spaced 90 apart) of the four test ports are accessible for the tests. Three points shall be selected for the preliminary O<sub>2</sub> traverse to check for stratification and determine the number and location of the sampling points. Continuous emission monitoring (CEM) will take place at one or two sample ports described above, depending on the results of the stratification tests. All three engines have the same inside diameter (ID) and each of the sampling ports on the outlet side of the catalyst are in similar locations in regards to upstream and downstream duct diameters. The measurements will be field verified once on site. See Attachment G for a schematic of the identical engine exhaust test locations.

If the CO concentrations are above 23 ppmvd on any outlet stack, inlet testing before the catalyst will also be performed. These measurements will be field verified and included in the final report, if necessary.

## 2.4 Example Description of Sampling Procedures

### 2.4.1 Continuous Emissions Monitoring (Instrumental Analyzers)

A continuous emission monitoring trailer equipped with instrumental analyzers will be used to measure concentrations of oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>), NO<sub>x</sub>, CO and VOC (see Attachment H). A description of each instrumental analyzer is provided below:

Pollutant	EPA Reference Method	Operating Principle
NO <sub>x</sub>	7E	Chemiluminescent
O <sub>2</sub>	3A	Paramagnetic
CO <sub>2</sub>	3A	Single beam, single wavelength infrared
CO	10	Gas filter correlation infrared
VOC	25A	Flame ionizing detector

- A. Each analyzer will be calibrated internally by introduction of calibration gas standards through a calibration manifold directly to the sample port of the analyzer. The manifold will vent the excess gas to the atmosphere to maintain the calibration at ambient pressure. The internal calibration sequence will consist of alternate injections of zero and high span gases with appropriate adjustments made until the desired response is obtained. The mid span standards (as required by the methods) will then be introduced in sequence without further instrument adjustment. All calibration gas standards will be EPA Protocol standards.
- B. A heated stainless steel tee and filter will be located at the exit of a heated stainless steel probe to permit introduction of calibration gases. (An inconel probe may be used due to the high temperature of the flue gas.) A heated Teflon® line will be used to transport the sample and zero/calibration gases to the sample conditioner where the moisture will be removed. The conditioned sample will be carried from the sample conditioner through
- C. ¼ inch unheated Teflon® sample line to the instrumental analyzers. The output from the instrumental analyzers will record instantaneously and average in one-minute intervals using computer software or other means.
- D. The sample line integrity will be verified by conducting pre and post-test bias checks. The sampling system bias test will consist of introducing zero gas and the mid-range calibration standard to the tee at the probe exit while the system operates normally.
- E. Calibration gas will be supplied in excess and permitted to flow out through the probe to maintain sampling system pressure. Instrument bias check response will be evaluated to ensure the sampling system integrity and, where required by the reference method, test results will be corrected for calibration drift and system bias.
- F. Pursuant to EPA Reference Method 7E and 3A, an interference check and NO<sub>2</sub> to NO converter efficiency demonstration is required. As per the Emission Measurement Center guidelines on EPA Reference Method 7E, note if any analyzers are grandfathered from the interference check requirements of Section 8.2.7 since initial interference checks on these analyzers were performed prior to the revision date of the instrumental methods (14 August 2006). Indicate that analyzer converter efficiency demonstration will be performed prior to the test program in accordance with Section 8.2.4 of EPA Reference Method 7E.

## 2.4.2 NMVOC Certification

- A. EPA Reference Method 25A and 18 will be used to determine the concentration of NMVOC.
- B. A diagram of the EPA Reference Method 25A sample train is presented as Attachment H.
- C. A total hydrocarbon analyzer (THC) equipped with a flame ionizing detector (FID) will be calibrated according to EPA Reference Method 25A. The calibration will be conducted by routing the calibration gases to the sample probe and back through the heated sample line to the FID. This system calibration is the primary calibration determination according to EPA Reference Method 25A, and each calibration response will be within 5% of the known value of the calibration cylinder. Records of all system calibrations will be included in the final report. The zero reference will be established with zero air. The instrument response will be established using methane in air calibration gas at concentrations corresponding to 25-35%, 45-55% and 80- 90% of the applicable span value for the FID.
- D. Data will be recorded continuously by a data logger consisting of an analog to digital converter and portable computer. The data logger will record the output from the FID at rate of once per second. The one-second values will be used to form one-minute averages. At the end of each one-hour test, the one-minute averages will be averaged.
- E. EPA Reference Method 18 will be used to determine the methane content of the gas stream. An integrated gas sample will be obtained from the EPA Reference Method 25A sample line during each sample run. The sample will be collected in an inert gas sample bag (Tedlar bag) and will be analyzed for methane content within 24 hours of sample collection. The methane concentration will have subtracted from the VOC concentration measured by the FID (corrected to a dry basis) to determine NMVOC.

## 2.5 Example Sampling Program

### 2.5.1 Preliminary Testing

- A. Preliminary test data will be obtained at the test location. Stack geometry measurements will be checked. A check for the presence or absence of stratification will be performed at the test location prior to compliance testing.
- B. A stratification check will be performed at the test locations prior to or during the first run of each three-run series pursuant to section 8.1.2 of EPA Method 7E. Three points (16.7, 50 and 83.3 percent of the duct diameter) will each be sampled a minimum of two times the system response time. If the O<sub>2</sub> concentration at each point in comparison to the mean is no more than  $\pm 5.0$  percent difference (or  $\pm 0.3$  percent O<sub>2</sub>), then all sampling will be performed at a single point at the stack midpoint. If the difference is between 5 and 10 percent (or  $\pm 0.5$  percent O<sub>2</sub>); a three-point traverse will be performed for each test run.
- C. A difference of greater than 10 percent in concentration will require testing at twelve traverse points located as per EPA Method 1.

### 2.5.2 Formal Testing

- A. Each formal test run will be  $\geq 60$  minutes in duration. A total of three (3) individual test runs will be performed at a single load condition.
- B. Velocities will be measured by traversing the stack according to EPA Methods 1 and 2, utilizing an S-type pitot tube and inclined manometer. Stack temperatures will be measured for each velocity

traverse using a K-type thermocouple and digital temperature indicator. The velocity traverse measurements will be used to determine volumetric flow rates.

- C. Moisture content will be determined concurrently with each test using EPA Method 4. The moisture content of the gas stream will be determined by the volume increase of the impinger water and weight increase of the silica gel in comparison to the volume of gas sampled.
- D. All testing will be performed while the SI ICE is operating at full load based on ambient conditions. UOSA or JCI representatives will collect applicable operating data as required to document the load condition and support the test results.

## **2.6 Example QA Procedures for Stack Gas Sample Collection**

General QA checks that will be conducted and apply to all methods include the following:

- Performance of leak checks.
- Use of standardized forms, labels and checklists.
- Use of calibrated instrumentation.
- Review of data sheets in the field to verify completeness.
- Use of validated spreadsheets for calculation of results.

### **2.6.1 Continuous Emissions Monitoring QA Procedure**

The following QA procedures will be applied to ensure collection of representative data:

- The sampling system probe back to the sample conditioner will be leak-checked prior to formal testing.
- All analyzers will be calibrated prior to testing to ensure precise and accurate data. Protocol standards will be used to calibrate each of the analyzers. Each analyzer will be calibrated at three or four points (zero, mid, and high range) depending on reference method requirements. Nitrogen or hydrocarbon-free air will be used to set the instrument zero. The CO<sub>2</sub>, O<sub>2</sub>, CO, and NO<sub>x</sub> calibration standards will be zero and approximately 40 to 60 and 100 % of span. The VOC FID calibration standards will be zero, 25-35, 45-55, and 80-90% of span.
- Pre- and post-test calibration bias tests will be performed for each test run. The bias check will be performed with the calibration standard that is closest to the observed concentration in the sample gas. The average calibration drift will not exceed 3 % of full scale.
- Prior to formal testing, a three-point stratification check using either CO<sub>2</sub> or O<sub>2</sub> will be performed pursuant to Section 8.1.2 of EPA Method 7E. The three points (16.7, 50 and 83.3) percent of the stack diameter will each be sampled a minimum of two times the system response. If the concentration of CO<sub>2</sub> or O<sub>2</sub> at each point in comparison to the mean difference is no more than  $\pm 5.0$  percent, then all sampling will be performed at a single point at the stack midpoint. If the difference is between 5 percent but not greater than 10 percent, a three-point traverse per run will be performed. A difference of greater than 10 percent in concentration will result in performing a multi-point traverse (along one axis) with points calculated per EPA Method 1.
- A permanent data record of all analyzer responses will be recorded using computer software designed by WESTON.

## **2.7 Test Report**

A written final report will be prepared and submitted to UOSA within 45 days of test completion. The test report will include:

- A summary section which will contain a concise description of the test program including reasons for testing, number and types of tests, technical approach, etc. A summary table showing all key test data and results will be included.
- A description of the source and test location.
- A description or reference of sampling equipment and analytical procedures.
- Detailed test data and test results summary tables. The Subpart JJJJ CO, NO<sub>x</sub> and VOC test results will be summarized in terms of g/hp-hr and ppmvd at 15% O<sub>2</sub>, and the Subpart ZZZZ CO test results will be summarized in terms of ppmvd at 15% O<sub>2</sub>.

Appendices containing:

- SI ICE and RICE operating data (to be recorded by UOSA or JCI representatives).
- Raw test data.
- Example calculations.
- Equipment calibration records.
- List of project participants.

**End Section 2**



## STANDARD TERMS AND CONDITIONS

### [Non-Construction]

The following Terms and Conditions establish requirements and conditions governing responsibility, policy, and procedures under the Contract Documents that apply during the performance of the Contract and Warranty Period. Additional requirements and conditions appear in other Contract Documents. The Contract Documents may be modified only in writing, signed by the Owner.

### **ARTICLE I** **DEFINITIONS**

Whenever used in this solicitation or in the Contract Documents, the following terms have the following meanings, which are applicable to both the singular and plural and the male and female gender thereof:

- 1.0 Acceptance:** UOSA's acceptance of any Phase or of the Project as a whole from the Contractor upon confirmation from the Contract Manager and the Contractor that the Phase or the Project as a whole is totally complete in accordance with the Contract requirements and that all defects have been eliminated. Final Acceptance is UOSA's written determination that the Work (excluding Warranties) is complete. Final Acceptance is confirmed by the making of Final Payment of the Contract Price for the affected Phase or for the Project as a whole including any Change Orders or other modification thereto. Contractor is responsible for all Work until Final Acceptance.
- 1.1 Bidder:** The individual or business entity who or which submits a Bid or a Proposal to the RFP or IFB (see also, Offeror).
- 1.2 Change Order:** A written modification to the Contract affecting Contract Price or Contract Time, or both, signed by both parties. A Unilateral Change Order is a Change Order issued by UOSA establishing a modification when the parties cannot agree on a Change Order, with the right reserved to the Contractor to initiate a claim if the parties are unable to agree on the disputed terms. Any modification to the Contract affecting Contract Price or Contract Time shall be made only by Change Order or Unilateral Change Order.
- 1.3 Contract:**
- A. "The Contract" is the written agreement of the parties, and shall be deemed to incorporate the Contract Documents covering the performance of the Work and the furnishing of services, labor, materials, Equipment, incidental services, tools, and equipment for the performance of the Work. It shall be deemed to include Supplemental Agreements amending or extending the scope of the Work contemplated and which may be required to achieve Acceptance and Final Acceptance or both. The Contract, as so defined, represents the entire and integrated agreement between the Owner and the Contractor, and supersedes all prior negotiations, representations, or agreements, both written and oral.
  - B. References to the "executed Contract" or the "signed Contract" refers to that portion of the Contract signed by parties. For Projects under \$50,000 and where specifically noted therein, a Purchase Order may take the place of the executed Contract.
  - C. The Contract may be modified only in writing signed by the Owner. The Contractor recognizes that no representative or agent of Owner has any authority to modify the Contract Documents in any other manner, express or implied. The Contractor agrees that it shall not rely upon or in any way assert the occurrence of any modification of any Contract Document other than in writing signed by the Owner and waives any right or ground to do so.
- 1.4 Contract Documents:** The Contract Documents consist of the Invitation for Bid ("IFB") OR the Request for Proposal ("RFP"), a signed copy of the Bid Form OR Proposal (including drawings and submittals and excluding any terms and conditions contrary or in addition to those in the RFP unless specifically agreed to in writing as a Supplemental Condition), the signed Contract, the Payment Bond (if any), the Performance Bond (if any), the Terms and Conditions, the Supplemental Conditions, and shall include all modifications of any of the foregoing incorporated by Addenda into the Contract Documents prior to execution of the Contract, and all Supplemental Agreements or Changes to the Contract Documents made subsequent to execution of the Contract.
- 1.5 Contract Manager:** The UOSA employee designated for purposes of oversight of the Contract and the Work. The Contract Manager is the Owner's authorized representative for all aspects of the Contract after Contract Award. UOSA may also designate a Technical Representative for routine coordination with the Contractor. The Contract Manager and the Technical Representative, if any, should be identified in the executed Contract. However, any change to the Contract affecting the Contract Price or the Contract Time is not effective and has no force and effect unless and until signed by the UOSA Executive Director or, in the absence of the Executive Director, UOSA Deputy Executive Director, or designee.
- 1.6 Contract Price:** The total compensation to be paid the Contractor for performance of all requirements of the Contract Documents. Any provision of the Contract Documents which imposes any responsibility or performance obligation upon the Contractor shall be deemed to include the phrase "within the Contract Price." Any claim or request by the Contractor for additional compensation for any reason shall be deemed to be a claim for modification of the Contract Price and must be submitted in strict accordance with the Disputes clause.
- 1.7 Contract Time:** The time within which the Contractor is required to achieve Acceptance, and thereafter to achieve Final Acceptance, of the Work. The Contract Time is of the essence of the Contract.
- 1.8 Contractor:** The person or persons, partnership, firm, joint venture, or corporation submitting a Bid or Proposal for the Work contemplated.
- 1.9 Notice:** The term "Notice" or the requirement to notify, as used in the Contract Documents or applicable state or federal statutes, shall mean a written communication delivered in person or by certified or registered mail to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended. Certified or registered mail shall be addressed to the last business address known to the party who gives the Notice. Notice to the Owner shall be given at the office of the Owner's Contract Manager. Notice is effective upon receipt. Communications by email shall not satisfy any Notice requirements of the Contract Documents except as may be provided specifically.

- 1.10 Notice to Proceed:** A written Notice given by the Owner to the Contractor establishing the date on which the Contract Time will commence and on which the Contractor shall be authorized to begin the Work. The execution of a Task Order or the issuance of a Purchase Order shall operate as a Notice to Proceed for the Work included in that document.
- 1.11 Offeror:** The individual or business entity who or which submits a Bid or a Proposal to the RFP or IFB. (see also, Bidder)
- 1.12 Owner:**
- A. Owner means the Upper Occoquan Sewage Authority, also known as Upper Occoquan Service Authority, and referred to by the acronym "UOSA", whose address is 14631 Compton Road, Centreville, Virginia, 20121-2506 (telephone number 703-830-2200). The Executive Director of the Upper Occoquan Sewage Authority shall have the authority to act on behalf of the Upper Occoquan Sewage Authority for all purposes under this Contract, and in the absence or incapacity of the Executive Director, the Deputy Executive Director shall have all powers and authority of the Executive Director. The Executive Director may designate a Contract Manager for purposes of over-sight of the Contract and the Work.
  - B. UOSA is a public body politic and corporate organized under the Virginia Water and Waste Authorities Act and subject to the Occoquan Policy. UOSA was created by the concurrent actions of the governing bodies of Fairfax County, Prince William County, the Town of Manassas (now the City of Manassas), and the Town of Manassas Park (now the City of Manassas Park) and was chartered by the State Corporation Commission of Virginia on April 1, 1971. UOSA was formed to acquire, finance, construct, operate and maintain facilities for the abatement of pollution resulting from sewage in its service areas in order to protect water quality in the Occoquan Watershed.
  - C. UOSA currently owns and operates an advanced water reclamation plant and a regional system of interceptor sewer lines, pump stations and force mains that deliver sewage from the four member jurisdictions to the treatment plant.
- 1.13 Partial Utilization:** The terms "or a defined portion thereof," "Partial Utilization," "Owner's Partial Utilization," "defined portion of the Work," "Owner's use of portions of the Work," or words of similar import when used in the Contract Documents shall be deemed to mean such portion of the Work as may be designated by the Owner in its sole discretion as having achieved that degree of completion which will permit the Owner to take over and commence the use and operation thereof prior to Acceptance of all Work. Such determination as to a defined portion of the Work so as to permit Owner's Partial Utilization shall not affect the determination of either Acceptance or Final Acceptance of the Work as a whole, which is understood to be indivisible, nor shall such determination have any impact on the obligation of the Owner to assess and deduct Liquidated Damages for failure to achieve Acceptance of the Work.
- 1.14 Project:** The term "Project" shall be synonymous with the term "the Work."
- 1.15 Proposal:** The response by an Offeror to the RFP.
- 1.16 Subcontractor:** Any party, entity, or enterprise of any sort other than the Contractor providing labor or services to the Project pursuant to any agreement or arrangement with the Contractor.
- 1.17 Supplemental Agreements:** Written agreements covering alterations, amendments, or extensions to the Contract and include Change Orders and Unilateral Change Orders.
- 1.18 UOSA:** Upper Occoquan Service Authority, interchangeable with "Owner."
- 1.19 Work:** The word "Work" within the Contract Documents shall include all services, material, labor, equipment and tools, Equipment, appliances, machinery, transportation, appurtenances, bonds, insurance, and all related costs necessary to perform and complete the Contract, and any such additional items and costs not specifically indicated or described which can be reasonably inferred as belonging to the item described or indicated or as required by industry practice, custom or usage to provide a complete and satisfactory deliverable system, structure or product in strict compliance with all requirements of the Contract Documents. Work means the same as "Project".

## **ARTICLE II**

### **THE CONTRACTOR REPRESENTATIONS AND OBLIGATIONS**

- 2.0 Arrearage:** By submitting a Bid or Proposal in response to this IFB or RFP, the Offeror shall be deemed to represent that it is not in arrears in the payment of any obligation due and owing UOSA, the Commonwealth of Virginia, or any public body within Virginia. Said representation shall include the payment of taxes and employee benefits. Offeror further agrees that it shall make diligent effort to avoid becoming in arrears during the term of the Contract.
- 2.1 Collusion:** By submitting a bid or a proposal, Offeror represents that such bid or proposal is submitted without prior understanding, agreement, or connection with any corporation, partnership, firm, or person submitting a proposal for the same requirements, without improper collusion or fraud. Collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards. All Bidders are required to sign the included UOSA Solicitation Disclosure Form that is included at the beginning of the Solicitation document. (Disclosure form must be filled out in its entirety.)
- 2.2 Compliance with Laws:** The Offeror/Contractor hereby represents and warrants that:  
It is qualified to do business in the Commonwealth of Virginia and that it will take such action as, from time to time hereafter, may be necessary to remain so qualified;  
It shall comply with all federal, State and local laws, regulations, and ordinances applicable to its activities and obligations under the Contract including, but not limited to the Virginia Procurement Act;  
It shall obtain at its expense, all regulatory and professional licenses, business licenses, permits, insurance, and governmental approvals, if any, necessary to the performance of its obligations under the Contract; and  
The Offeror shall include in its bid or Proposal the identification number issued to it by the Virginia State Corporation Commission. Any bidder that is not required to be authorized to transact business in the Commonwealth of Virginia as a foreign business entity under Title 13.1 or Title 50 of the Virginia Code or as otherwise required by law shall include in its bid a statement describing why the bidder is not required to be so authorized. Any Offeror that fails to provide this required information shall not be entitled to a Contract Award.

- 2.3 Contractor's Responsibilities:** The Contractor shall be responsible for all Work required by this solicitation. The use of Subcontractors is prohibited, without prior written consent from UOSA. Any consent to use Subcontractors, shall not relieve the Contractor of liability under the Contract.
- 2.4 Debarment Status:** By submitting a Bid or a Proposal, Offeror certifies that it is not currently debarred by the Commonwealth of Virginia (or any other Virginia public body) from submitting Offers or proposals on contracts for the type of goods and/or services covered by this solicitation, nor is it an agent of any person or entity that is currently so debarred.
- 2.5 Drug-free Workplace:** During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every Subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each Subcontractor or vendor.
- 2.6 Duration of Bids/Proposals:** Bids/Proposals shall be valid for a minimum of 90 days following the deadline for submitting bids. If an award is not made during that period, all offers shall be automatically extended for another 90 days. Bids/Proposals will be automatically renewed until such time as either an award is made or proper notice is given to UOSA of Bidder's/Offeror's intent to withdraw its bid/proposal. Bids/Proposals may only be canceled by submitting written notice at least 15 days before the expiration of the then current 90-day period.
- 2.7 Employment Discrimination:**
- A. By submitting their bids or proposals, Offerors certify to UOSA that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, and where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and § 2.2-4310 of the Virginia Public Procurement Act.
  - B. During the performance of this Contract, the Contractor agrees as follows:
    - 1. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
    - 2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
    - 3. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
    - 4. The Contractor will include the provisions of the foregoing paragraphs 1, 2 and 3 in every Subcontract or purchase order over \$10,000.00, so that the provision will be binding upon each Subcontractor or vendor.
- 2.8 Employment of Aliens:** It shall be the responsibility of the Contractor to comply and to require compliance by others on the Project with all federal, state and local laws dealing with employment of aliens, including, but not limited to, the requirements and prohibitions provided in the Immigration and Nationality Act (INA) of 1952, as amended, and the Immigration Reform and Control Act (IRCA) of 1986, as amended, which control employment of unauthorized aliens. By entering into a Contract with UOSA, Contractor represents that it does not, and shall not during the performance of the Contract, knowingly employ an unauthorized alien.
- 2.9 Ethics in Public Contracting:** Contractor hereby certifies that it has familiarized itself with the following provisions of the Virginia Code, and that all amounts received by it pursuant to any Contract or Task Order Awarded to it are proper and in compliance therewith: Section 2.2-3100 et. seq., the State and Local Government Conflict of Interests Act; Section 2.2-4367 et seq., Ethics in Public Contracting; Section 18.2-498.1 et seq., Virginia Governmental Frauds Act; and Articles 2 (Section 18.2-438 et seq.) and 3 (Section 18.2-446 et seq.) of Chapter 10 of Title 18.2.
- 2.10 Examination of Records:** The Offeror agrees that in any resulting Contract, either UOSA or its duly authorized representative shall have access to and the right to examine and copy any directly pertinent books, documents, papers, and records of the Contractor involving transactions related to any resulting Contract. This obligation shall expire five years after the final payment for the final service performed as a result of any and all Contract(s), Task Order(s) or Purchase Orders awarded pursuant to this solicitation, or until audited by UOSA, whichever is sooner. Contractor will provide reasonable access to any and all necessary documents and upon demand provide copies of documents if so required by UOSA or its representative(s). UOSA will reimburse the Contractor for any reasonable expenses it incurs as a result of such a request.
- 2.11 Independent Contractor:** The Contractor shall perform or cause to be performed all Work under the Contract as an independent contractor and shall not be considered either an agent or employee of the Owner or of the Engineer.
- 2.12 Permits and Inspections (where applicable):**
- A. The Contractor shall obtain and provide any and all required permits from the appropriate local authority.
  - B. The Contractor shall be responsible for scheduling all inspections and performing all work necessary for testing and inspections as required by any and all authorities having jurisdiction during the course of Work.
- 2.13 Safety Program and Contractor's Compliance (where applicable):** If applicable to this contract:

- A. The Contractor shall comply with all applicable Federal, State, and local safety programs, regulations, standards, and codes, to include though not limited to:
  - 1. The Virginia Uniform Statewide Building Code;
  - 2. Building Officials & Code Administrators (BOCA) codes (together with adopted International Codes);
  - 3. Virginia Department of Health (VDH) regulations;
  - 4. Virginia Department of Environmental Quality (DEQ) regulations;
  - 5. Virginia-OSH (VOSH) regulations, and
  - 6. National Electric Code (NEC).
- B. The Contractor shall have a current written safety program, that complies with all applicable OSHA and VOSH standards for General Industry regulations, and if required, a written Permit Required Confined Space Entry Program that complies with VOSH Standard Confined Space Entry Standard 1910.146. A copy of these programs shall be provided to the Purchasing Manager with the Contractor's general safety program not later than seven days after contract award and before beginning Work.
- C. If the Work requires working in a confined space, the Contractor shall utilize only personnel trained for confined space entry and shall provide all entry equipment including atmospheric test equipment.
- D. Contractor's employees shall wear hard hats and steel toe shoes while working in all applicable areas.

**2.14 Superintendence by Contractor (where applicable):**

- A. The Contractor shall have a competent Superintendent, satisfactory to UOSA, to oversee the progress of the Work. The Contractor shall be responsible for coordinating all portions of the Work except where otherwise specified in the Contract Documents, and for all safety and worker health programs and practices. The Contractor shall notify the Contract Manager, in writing, of any proposed change in Superintendent including the reason therefore prior to making such change.
- B. The Contractor shall at all times enforce strict discipline and good order among the workers on the project. The Contractor shall not employ on the Project any unfit person, anyone not skilled in the work assigned to him, or anyone who will not work in harmony with those employed by the Contractor, subcontractors, UOSA or UOSA's separate Contractors and their subcontractors.
- C. UOSA may, in writing, require the Contractor to remove from UOSA property, any employee UOSA deems to be incompetent, careless, not working in harmony with others on the site, or otherwise objectionable.

**2.15 UOSA Drug and Alcohol Policy:** The Contractor shall be subject to follow this UOSA Policy at all times while on UOSA premises.

A. Drugs or Alcohol and the Job:

The nature of the Work of UOSA requires that the highest standards of safety be maintained for the public, employees and Contractors working at UOSA. The use of drugs, i.e., controlled substances or alcohol while on the job or working while under their influence poses a threat to that health and safety.

B. Guidelines for Drugs and Alcohol:

All employees and Contractors are required to work with faculties unimpaired. Therefore, the use or possession of drugs or alcohol while on UOSA premises is strictly prohibited. Working or reporting to work in a condition that would prevent the employee or Contractor from performing his duties in a safe or effective manner for any reason also is prohibited. Any illegal substances will be turned over to the appropriate law enforcement agency and may result in criminal prosecution.

Employees or Contractors undergoing prescribed medical treatment with a controlled substance are required to advise their supervisor, contract administrator and/or the UOSA safety officer of such treatment. Prescribed use of controlled substances as a part of a medical treatment is not necessarily grounds for disciplinary action. However, where such use adversely affects an employee or Contractor's ability to perform his or her job safely and effectively, alternative work assignment or other appropriate action will be employed.

C. Detection of Drugs or Alcohol:

As a part of its program to prevent the use of controlled substances and alcohol that affect the workplace and in the event of an accident or any incident where safety rules have been or appear to have been violated, employees or Contractors involved or responsible may be required to undergo a urine test or other method for the purpose of detecting the use or presence of controlled substances or alcohol. In addition, where a supervisor, contract administrator or safety officer has reason to believe that an employee or Contractor may be drug or alcohol impaired, he or she may require the employee or Contractor to submit to such testing. The cost of any such testing required for a Contractor will be charged to that Contractor or deducted from payments to the Contractor. An employee's or Contractor's refusal to submit to a urine or other test or to cooperate with UOSA's effort to eliminate drugs or alcohol in the workplace may be grounds for disciplinary action, including termination of employment or contract.

**2.16 UOSA Smoking Policy:** The Contractor shall be subject to follow this UOSA Policy at all times while on UOSA premises.

Purpose:

The purpose of the UOSA smoking policy is to maintain UOSA as a safe and smoke-free environment for everyone.

Policy:

Because of the numerous potentially flammable solids, liquids, and gases encountered in UOSA operations. With limited exceptions smoking must be prohibited in the UOSA workplace.

Smoking is prohibited inside the security fence of the Plant and all Pump Stations except in the following Plant locations:

patio area on the east side of the Laboratory Building;  
patio area north of Building H/1;  
the immediate area at the south entrance to Building S/2;  
the east side of X/1;  
the north side of D/2; and  
the east balcony off the 2<sup>nd</sup> floor of Building U.

Employees may smoke in the patio area on the east side of Building F.

The public will be allowed to smoke on the west side of Building F.

The users must keep all smoking areas clean. Failure to do so may result in the loss of the smoking privileges. Trash receptacles and cigarette disposal receptacles will be provided at each approved location. The responsibility of emptying the receptacles rests with the users.

Other Non-UOSA Sites:

Contractor shall obey all nonsmoking rules and regulations when performing work for UOSA on non-UOSA premises. It is the responsibility of the Contractor to identify these prohibited areas and inform its employees that smoking is not allowed in specified restricted areas.

- 2.17 Vehicle Operation Compliance:** Vehicles being driven on UOSA property must comply with the posted speed limit, stop and yield signs. Operators found in non-compliance will be asked to leave UOSA property. The Contractor may be required to replace the offenders with new personnel if deemed to be in the best interest of the Authority by UOSA's Safety Officer.

### **ARTICLE III** **CONTRACT TERMS**

- 3.0 Contract Changes / Change Orders:** No verbal agreement or conversation with any officer, agent or employee of UOSA either before or after the execution of any Contract resulting from this solicitation or follow-on negotiations, shall affect or modify any of the terms, conditions, specifications, or obligations contained in the solicitation, or resulting Contract. No alterations to the Terms and Conditions or any other change affecting Contract Price or Contract Time, or both, shall be valid or binding upon UOSA unless made in writing in the form of a Change Order and signed by UOSA's Executive Director or Deputy Executive Director, or designee.

In any event and in all circumstances, the Contractor shall be solely liable and responsible for, and UOSA shall be under no obligation to pay for, any Contract changes or deviations made without first receiving a Written Change Order to deviate from the Contract.

Changes can be made to the contract in any of the following ways:

1. By mutual agreement between the parties in a written Change Order.
2. By UOSA issuing a Unilateral Change Order ordering the Contractor to proceed with the work. Any claim for an adjustment in Contract Price under this provision must be asserted by Notice to the UOSA Contract Manager. Neither the existence of a claim nor a dispute resolution process, litigation or any other provision of this Contract shall excuse the Contractor from promptly complying with the changes ordered by the Unilateral Change Order or with the performance of the Contract generally.

- 3.1 Contract Documents Precedence:** The Contract to be entered into as a result of this solicitation shall be by and between the Offeror as Contractor and UOSA. The Contract Documents shall include the following items, which are listed in order of precedence:

1. Supplemental Agreements, with the most recent having precedence,
2. Fully executed Task Orders, (if applicable)
3. The fully executed Contract
4. The Terms and Conditions
5. The RFP or IFB and any Addenda to the IFB or RFP,
6. The Offeror's Bid or Proposal (including any drawings and submittals), and excluding terms and conditions that are not expressly agreed to in writing by UOSA in a Supplemental Agreement.

Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all, except that a provision clearly designed to negate or alter a provision contained in one or more of the other Contract Documents shall have the intended effect.

The intent of the Contract Documents is to describe a functionally complete Project to be performed in accordance with the Contract Documents. Any services, material, labor, equipment, tools, Equipment, appliances, machinery, transportation, appurtenances, bonds, insurance, and all related costs that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be deemed to be part of the Work whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe any portion of the Work, such words shall be interpreted in accordance with that meaning. The words "will" or "shall" are used interchangeably and denote mandatory, non-discretionary conduct or intent.

By submitting an Offer or Bid in response to this solicitation, the Offeror agrees to all Terms and Conditions and to the Specifications contained in the RFP or IFB, unless and except as otherwise noted as an exception in the Offeror's Bid or Proposal. Any terms and conditions that the Offeror proposes to use must be submitted as part of the Bid or Proposal (unless otherwise specifically noted in this solicitation or otherwise required in accordance with Virginia law) but shall not be deemed accepted terms agreed to by the Owner unless and until those terms are incorporated expressly into the Contract by Supplemental Agreement or by Change Order signed by both parties. Terms and conditions submitted by an Offeror after the required submission date will not be considered for incorporation into the terms of the awarded Contract.

Terms and conditions submitted by an Offeror after the required submission date will not be considered for incorporation into the terms of the awarded Contract.

All time limits stated in the Contract Documents, including but not limited to the time for completion of the Work, are of the essence.

**3.2 Default:** The Contractor may be deemed by the Owner to be in default of the Contract if the Contractor:

1. abandons the Work or a defined portion thereof; or
2. persistently or repeatedly fails or refuses to perform the Work or a defined portion thereof; or
3. persistently or repeatedly fails to make prompt payment to Subcontractors for material or labor; or
4. persistently or repeatedly disregards laws, ordinances, or regulations; or
5. fails to prosecute the Work either in a timely manner or in conformance with the Contract Documents; or
6. neglects or refuses to remove and replace at its own cost Work rejected by the ; or
7. is otherwise in breach of the Contract.

**3.3 Delays:**

- A. The Contractor shall not be responsible for delays caused by UOSA, its agents, or other contractors under contract with UOSA. To the extent that the Contractor is unable to proceed with timely performance due solely to the actions or inactions of UOSA, its agents, employees or such other contractors, the Contractor shall be granted an extension to the performance schedule equal to the documented amount of time the Contractor was prevented from performing work, so long as the Contractor submits a Notice of Claim to UOSA at the time the delay begins or within seven (7) days thereafter if the resulting delay was not reasonably foreseeable. This Notice is condition precedent to the assertion of any claim for additional time or compensation.
- B. Any claim for an extension of time for a delay for any cause, shall be made by filing a Notice of claim with the Owner at the time the delay begins or within seven (7) days thereafter if the resulting delay was not reasonably foreseeable. The Notice of claim for any delay shall be submitted in duplicate, in writing, and shall state the circumstances of the occurrence, the justification for the delay and for the extension of time, and provide the estimated duration of the delay and of the time extension requested.
- C. Within seven (7) days after the delay has ceased, the Contractor shall give written Notice to the Owner of the actual date of the cessation of the delay and the anticipated time extension. Within twenty (20) days after the delay has ceased, the Contractor shall submit a written statement of the actual time extension requested as a result of the claimed delay which shall include all documentation and supporting information for such claimed delay required by the Contract Documents.
- D. The Contractor shall be entitled to an extension of time for delay caused by any act or any neglect of the Owner, the Engineer or by any separate contractor employed by the Owner; or by strikes, lockouts, fire, insurrection, war, acts of public authorities, lightning, hurricane, tornado, flood, abnormal and unusually severe weather as defined above, or for any delays arising as a result of the occurrence of any physical conditions, subsurface conditions or soil conditions which may be encountered in the prosecution of the Work and which, in the exercise of reasonable care and due diligence in the investigation and analysis of all information available, should not have been foreseeable, anticipated, or indicated; or by any other cause which in the opinion of the Owner is entirely beyond the expectation and control of and arises without the fault or negligence of the Contractor. Entitlement to such extension of time shall, however, be subject to all limitations on claims for delay set forth in the Contract, and shall be conditioned upon strict compliance with all Notice and submission requirements imposed by therein. The Contractor shall be entitled to an extension of time for such causes only for the number of days of delay which the Owner may determine to be due solely to such causes and then only to the extent that such occurrences actually delay the Acceptance of the Project or defined portions thereof. *If the delay is not due solely to such causes but also is due concurrently to causes for which the Contractor is not entitled to an extension of time, the Contractor shall not be entitled to an extension of time for such period of concurrent delay.* Any request for extension of time shall, to the extent that such information has not been included in any previously submitted Time Impact Analysis, as may be required by the Specifications, be accompanied by detailed documentation of what specific schedule activities were affected, when they were affected and for what duration, as well as what actions the Contractor took to eliminate or mitigate the extent of the delay. Provided, however, compliance with this requirement shall not be in lieu of, nor result in any extension of, the submittal requirements for a Time Impact Analysis as required by Specifications.

**3.4 Disputes:**

- A. In any case where the Contractor deems it is due additional compensation beyond the Contract Price, the Contractor shall give written Notice of such claim to the Owner at the time of the discovery of the occurrence of the event giving rise to the claim and before beginning any Work on which the claim is based. Such Notice shall identify itself as a Notice of claim, shall state the circumstances of the occurrence, shall specify the additional work contemplated as being required, shall state why such work is not already included within the scope of the Contract Documents, and to the extent reasonably foreseeable shall estimate the anticipated amount of the claim. If the Owner declines to consent to a Change Order and directs the Contractor to proceed with such Work, then the Contractor shall so proceed and within ten (10) days after completion of the Work for which additional compensation is claimed shall submit in writing to the Owner an itemization of the actual additional compensation claimed. Strict compliance with these provisions shall be a condition precedent to the assertion of any claim, and any claim for additional compensation not presented as required in this provision shall be barred. Compliance with such requirements, however, shall not create any presumption of the validity of such claim.
- B. The Owner will make the final decision on all requests for additional compensation or an extension of Contract Time. Within ninety (90) days after the Contractor files its itemization of the actual amount of additional compensation claimed, the Owner shall present the Owner's final written decision to the Contractor as to whether any additional compensation should be paid. A written decision by the Owner within the stated time shall be a condition precedent to the institution of any judicial claim for relief by the Contractor. The Owner's written decision shall be final and conclusive unless the Contractor institutes appropriate judicial appeal within six (6) months of the date of the decision by the Owner. In the event the Owner has not rendered a decision on a claim for additional compensation or extension of Contract Time within the specified time frame after submission of such claim as provided herein, the claim shall be deemed denied and the Owner's final decision shall be deemed to have been issued on the last day of the specified time frame after submission of the claim. In the interest of compromise, the Owner may, but is not required to, consider further submissions by the Contractor related to a claim after a final decision on a claim, but no such actions by the Owner shall in any way affect or extend the effective date of the Owner's final decision on the claim.

- C. If the Owner agrees to pay additional compensation in response to such claim, payment shall be made in accordance with or pursuant to such Supplemental Agreement as may be reached between the Owner and the Contractor.
- D. The Contractor shall comply with all directions and decisions of the Owner or Owner's agent (if applicable) and shall proceed diligently with performance of the Contract and with any disputed work pending final resolution of any claim or dispute, whether for additional compensation or extension of time. "Final resolution" as used throughout the Contract Documents shall mean the conclusion or exhaustion of all judicial proceedings.
- E. If the Contractor at any time determines the Owner to be in material breach of the Contract, the Contractor shall provide Notice of claim thereof to the Owner within seven (7) days of the occurrence the Contractor deems to constitute such material breach. Such Notice shall specify the precise occurrence(s) of such material breach. The Contractor's continuing performance under the Contract, after giving such Notice of claim, including but not limited to receiving moneys thereunder, shall constitute an election to waive such material breach and to confirm the continued existence of the Contract.
- F. No payment or partial payment on any claim shall be made prior to final resolution of such claim.
- G. All matters of dispute must be resolved either to the mutual satisfaction of the Owner and the Contractor or by final resolution as a condition precedent to the Owner's obligation to make final payment for the Work to the Contractor.
- H. The Contractor shall make no claim against any officer, agent, or employee of the Owner for, or on account of, any act or omission to act in connection with the Contract, and hereby waives any and all rights to make any such claim or claims.
- I. If additional compensation and/or extension of time is granted as to any claim, the same shall be incorporated in a Change Order to the Contract. The Contractor shall not be entitled to recover interest on any amounts claimed to be due from the Owner which are the subject of a good faith dispute by the Owner which are paid by the Owner within thirty (30) days following the final resolution of such dispute.
- J. The terms "claim" and "dispute" are used interchangeably in the Contract Documents and either shall mean any request by the Contractor for compensation in excess of that to which the Owner agrees, for a time extension in excess of that to which the Owner agrees, or for any other relief beyond that to which the Owner agrees.
- K. For any judicial proceedings arising from or related to the Contract Documents, the Contractor and the Owner hereby consent to exclusive venue and jurisdiction in the Circuit Court of Fairfax County, Virginia, or the United States District Court for the Eastern District of Virginia (Alexandria Division).
- L. Failure of the Owner to require compliance with any term or condition of this Contract shall not be deemed a waiver of such term or condition, or a waiver of the subsequent enforcement thereof, including but not limited to the Owner's claim for a subsequent material breach of Contract.
- M. Failure by the Contractor to comply with any condition precedent to a claim provided by the Contract Documents shall be an absolute bar to such claim.

**3.5 Examination and Verification of Contract Documents:** By executing the Contract, the Contractor confirms that it has thoroughly examined and become familiar with all of the Contract Documents; that it has determined the nature and location of the Work; the general and local conditions; the availability and competence of labor; the availability of equipment, materials, supplies, and Equipment, and all other matters which can in any way affect the Work under the Contract. Failure to have made any examination necessary for these determinations shall not release the Contractor from any of the obligations of the Contract nor be grounds for any claim based upon unforeseen conditions. No verbal agreement or conversation with any officer, agent, or employee of the Owner, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations of the Contract Documents.

### **3.6 Indemnity:**

- A. To the maximum extent permitted by law, the Contractor shall indemnify, save harmless and defend UOSA, or any employee of UOSA, against liability for any suits, actions, or claims of any character whatsoever, whether in tort, contract or other remedy, arising from or relating to the performance of the Contractor or its Subcontractors under this Contract. This indemnification obligation shall include but not be limited to attorneys' fees and other costs or fees commonly associated with litigation.
- B. UOSA does not agree to indemnify the Contractor for any reason, or to "hold harmless" the Contractor or others for any matters relating to this Contract or for performance or non-performance of work hereunder.
- C. The Contractor shall be responsible for its Work and every part thereof, and for all materials, equipment, and property of any and all description used in connection therewith. The Contractor assumes all risks of direct and indirect damage or injury to any person or property wherever located, resulting from any action, omission, commission, or operation under the contract, or in connection in any way whatsoever with the contracted work.
- D. The Contractor shall immediately notify the Contract Manager of any claim or suit made or filed against the Contractor or its Subcontractors regarding any matter resulting from or related to the Contractor's obligations under the Contract, and shall keep UOSA reasonably informed of the status of such claim. The Contractor will cooperate, assist, and consult with UOSA in the defense or investigation of any suit or action made or filed against UOSA as a result of or relating to the Contractor's performance under this Contract.

**3.7 Insurance:** The Contractor shall, during the continuance of all work under the contract provide and agree to maintain the following:

- A. General Insurance Requirements: Before commencing work, the Contractor shall procure and maintain at its own expense, minimum insurance in forms and with insurance companies acceptable to UOSA to cover loss or liability arising out of the Work. All insurance policies must be from insurers authorized to conduct business within Commonwealth of Virginia and must have a Best's rating of at least A- and a financial size of class VIII or better in the latest edition of Best's Insurance Reports.

- B. **Workers' Compensation and Employers' Liability Insurance:** The Contractor shall obtain Statutory Workers' Compensation Insurance covering injury to employees of the Contractor while performing work within the scope of their employment and Employers' Liability Insurance with limits of at least \$100,000/\$500,000/\$100,000.
- C. **Required Commercial General Liability Insurance:** This insurance must be written on an "occurrence" basis and shall be endorsed to include UOSA as an additional insured and shall provide at a minimum the following:

General Aggregate Limit (Other than Products-Completed Operations)	\$1,000,000
Products-Completed Operations Aggregate Limit	\$ 500,000
Personal & Advertising Injury Limit	\$ 500,000
Each Occurrence Limit	\$ 500,000

- D. **Business Automobile Liability Insurance:** This insurance shall apply to any auto, including all owned, hired and non-owned vehicles, covering Bodily Injury and Property Damage with a combined single limit of at least \$500,000 each accident.
- E. **Professional Liability Insurance, Errors & Omissions:** This insurance shall be written on a "claims made" basis, and shall be provided to UOSA during the course of the Project and continuing for at least three (3) years after completion of construction. Minimum coverage amount \$1,000,000.
- F. **Certificates of Insurance:** The Contractor shall provide UOSA with a certificate of insurance evidencing the required coverage before commencing with the work. Insurance certificates shall provide that UOSA be notified at least 30 days prior to any change or cancellation of the said insurance policies.

**3.8 Latent Defects:** No failure on the part of either the Owner to discover and either to condemn or reject Work which does not comply with the intent and requirements of the Contract Documents shall be construed to imply acceptance thereof. The Owner reserves and retains all of its rights and remedies at law or in equity against the Contractor for correction of any and all defective or nonconforming Work whenever discovered, whether before, during or after the Warranty Period.

No tests or inspections conducted by the Owner or others shall relieve the Contractor of its obligations to execute the Work in strict compliance with the requirements of the Contract Documents and to correct defective or nonconforming Work not initially identified by the Owner or others at the time of tests or inspections but discovered subsequently.

**3.9 Liquidated Damages:** Should the Contractor fail to achieve Acceptance or Final Acceptance of the Work within the periods of time required by the Contract Documents, the Contractor shall reimburse the Owner for the additional expense and damage incurred by the Owner as a result thereof for each calendar day that the Work, or any defined portion thereof, remains uncompleted. The parties hereby agree that the damages to the Owner for the continued expense of completion of the Work and on account of the value of the operation of the facilities which are dependent upon such completion are anticipated to be substantial but are not readily ascertainable. It therefore is agreed that the amount of such additional expense and damage incurred by the Owner by reason of a failure to complete the Work within the required times shall be the per diem rates stipulated in the Contract Documents. It is expressly understood and agreed that these amounts are not to be considered in the nature of a penalty, but as Liquidated Damages. The Contractor hereby waives any defense as to the validity of any Liquidated Damages under the Contract as they may appear on the grounds that such Liquidated Damages are void as penalties or are not reasonably related to actual damage. The Owner shall deduct from funds otherwise due the Contractor Liquidated Damages which have been assessed. In the event more than one ground for assessment of Liquidated Damages as provided by the Contract Documents exists concurrently, such grounds shall be deemed to be independent and all applicable Liquidated Damages shall be deducted cumulatively.

**3.10 Ownership of the Work:** Upon Final Acceptance, UOSA shall own all the Work, including, but not limited to, all technologies, materials, software and processes provided under this Contract, except as specifically agreed to by the parties in a Supplemental Agreement prior to the performance of that portion of the Work that the Contractor does not intend to turn over ownership to UOSA. The presumption is that all Work will become UOSA's property with UOSA's ability to exercise control and access to all portions of the Work.

The Contractor, shall indemnify and hold harmless UOSA, its employees and officers from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or un-patented invention, process or article provided by the Contractor. If the Contractor uses any design, device, or materials covered by letters, patent, copyright, or licenses, all royalties and/or costs arising from the use of such design, device or materials in any way involved in the work are included in the Contract Price.

**3.11 Right to Accept Defective or Nonconforming Performance:** If any part or portion of the Work shall prove defective or nonconforming or otherwise not in accordance with the intent and requirements of the Contract Documents, the Owner, at its sole discretion, shall have the right and authority to accept such Work and make such deductions in the payment therefore as may be just and reasonable. The Owner shall be under no obligation to accept any defective or nonconforming Work.

**3.12 Site Safety and Access:**

- A. UOSA shall have the right to deny access to the Site, or require the Contractor to remove from the Site, any individual who has exhibited violent, abusive, threatening, negligent, careless, or dangerous behavior or conduct.
- B. UOSA may limit, restrict, or prohibit access to areas of the Site on a permanent or temporary basis. When access to such restricted areas is required by the Contractor to perform the Work, the Contractor shall obtain permission from the UOSA Contract Manager and shall comply with such conditions or limitations to access as may be imposed by the UOSA Contract Manager.
- C. UOSA may restrict parking or require parking permits for vehicles to be brought onto the plant. The Contractor shall be responsible for arranging transportation for its personnel to reach the job sites from whatever parking area is provided by UOSA.

**3.13 Termination:**

For Convenience:



The Owner may terminate performance of the Work under the Contract for its convenience in whole, or from time to time in part, whenever the Owner determines that such termination is in the best interest of the Owner.

Upon receipt of such Notice of Termination, the Contractor shall immediately, to the extent of the termination:

- stop Work;

- place no further subcontracts or orders for materials or services;

- transfer title and deliver to the Owner all materials and Equipment for which the Owner has made payment or will make payment pursuant to this Article, and turn over to the Owner all complete or partial Drawings, releases, information, manuals and other such documentation related to such materials and Equipment;

- assign to Owner all Subcontracts as designated by Owner to be assigned and terminate all other subcontracts; and
- commence demobilization and removal of operations from the Site (if applicable).

The Owner will pay all reasonable costs associated with the Contract that the Contractor had incurred up to the date of Termination and reasonable demobilization costs. However, the Contractor shall not be reimbursed for any profit and/or overhead that had not been earned up to the date of termination.

For Cause:

If the Contractor is in default, written Notice of such default shall be given to the Contractor. If the Contractor does not cure such default within ten (10) days following such Notice, the Owner may:

1. terminate the Contract by written Notice;
2. withhold further payment to the Contractor until satisfactory performance has resumed;
3. transfer the obligation to perform the Contract from the Contractor to the Surety (if any);
4. take over the Work as a whole or that portion of the Work which has been improperly performed or not timely executed, and make good the deficiencies and deduct the cost thereof from the payments then or thereafter due the Contractor. Any such action by the Owner shall not prejudice any warranty rights of the Owner nor any rights of the Owner under the Contractor's Payment Bond or Performance Bond (if any) or general Virginia law. Provided, however, the Owner may so proceed without such Notice if an emergency or danger to the Work or the public exists; and/or
5. all finished or unfinished Work provided by the Contractor shall, at the Owner's option, become the Owner's property.

Upon determination of the damages resulting to the Owner as a result of Contractor's default, if the amount due Contractor for Work properly performed prior to Contractor's receipt of Notice of Termination exceeds the Owner's damages, the Owner shall pay such excess to the Contractor. If the damages to the Owner exceed the amount due Contractor for Work properly performed prior to Contractor's receipt of Notice of Termination, the Contractor shall pay such excess to the Owner.

The Owner may avail itself of any other legal remedy to protect its interests and recoup its damages.

If the Contractor is sold, bought, goes bankrupt, or goes into receivership, the Owner reserves the right to terminate for cause.

The Owner may cancel this solicitation at any time and for any reason prior to execution of the Contract

**3.14 Time is of the Essence:** All time limits stated in the Contract Documents, including but not limited to the time for completion of the Work, are of the essence.

**3.15 Virginia Freedom of Information Act- Disclosure of Information:** As a public body, the Owner is subject to the Virginia Freedom of Information Act and its records are public records except as defined in that statute. Any information which the Contractor deems to be confidential or proprietary shall be marked by the Contractor in accordance with the Virginia Freedom of Information Act. No separate non-disclosure agreement will be provided.

**3.16 Warranty:** The Contractor shall warrant that, unless otherwise specified, all Materials and Equipment incorporated in the Work under the Contract shall be new, in first class condition, and in strict accordance with the Contract Documents. The Contractor further shall warrant that all Workmanship shall be of the highest quality and in strict accordance with Contract Documents and shall be performed by persons qualified at their respective trades.

Warranty Period. All warranties and guarantees against any defect in the Work, including materials, equipment and parts, shall apply from the date of Acceptance of the Work and shall continue for a period of one (1) year thereafter.

All warranties set forth in the IFB or RFP or in any other Contract Document are separate and independent from and in addition to any of the Contractor's other guarantees or obligations in any Contract awarded as a result of this solicitation.

In addition to the foregoing warranties, Contractor shall warrant that (1) the Work performed and materials to be supplied are fit and sufficient for the purpose intended; (2) the Work performed and the materials supplied are merchantable, of good quality and free from defects, whether patent or latent, in material or workmanship; and (3) the Work performed and the materials provided conform to the Specifications of the solicitation. To the extent that Contractor engages Subcontractors or Vendors, Contractor shall ensure that all Subcontractors and Vendors provide these same warranties to the Owner. Such Subcontractor or Vendor warranties shall not be in lieu of or otherwise relieve Contractor of its warranty obligations as stated in this solicitation or in any Contract Document.

Any implied warranties, including but not limited to the warranty for "Merchantability and Fitness for A Particular Purpose" are not waived and are a mandatory part of this solicitation and any ensuing Contract.

Work not conforming to any warranty shall be considered defective.

The Contractor hereby agrees to make at its expense, all repairs or replacements necessitated by defects or non-conformities in the Work, including Materials, Equipment and Parts, and to pay for any damage to other work resulting from such defects or non-conformities which become evident at any time prior to the expiration of any applicable Warranty Period or such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents or otherwise provided. Defects or non-conformities which are remedied as a result of obligations of the warranty shall subject the remedied portion of the Work to an extended

Warranty Period of one (1) year from the date upon which such defect or nonconformity was fully remedied or from the date of Final Acceptance, whichever is later. The Contractor must submit to the Owner a written certification that the item of defective or nonconforming Work has been corrected. Un-remedied defects or non-conformities identified for correction during the Warranty Period but remaining after its expiration shall be considered as part of the obligations of the warranty.

No tests or inspections conducted by the Owner, its Engineer or others shall relieve the Contractor of its obligations to execute the Work in strict compliance with the requirements of the Contract Documents and to correct defective or nonconforming Work not initially identified by the Owner, the Engineer or others at the time of tests or inspections, but discovered subsequently.

The Contractor further shall assume responsibility for a similar warranty for all Work provided by Subcontractors, Manufacturers or Manufacturers/Suppliers.

The Contractor shall agree to hold the Owner harmless from liability of any kind arising from damage due to said defects or non-conformities. The Contractor shall make all repairs and replacements promptly upon receipt of written order for same from the Owner. If the Contractor after receipt of written demand for repair from Owner fails to make or complete the repairs and replacements within fourteen (14) days, or within such lesser time as in the opinion of the Owner may be necessary to avoid serious impairment to the operation of the facilities or to prevent a threat to health or safety, or if the Owner otherwise has a reasonable grounds to determine that the Contractor will not perform the Work in question, the Owner may perform such repairs or replacements and the Contractor shall be liable for the cost thereof. Any condition of such urgency that in the opinion of the Owner immediate corrective action is required may be remedied by the Owner without prior Notice to the Contractor, and the Contractor shall be liable for the cost thereof. Any such corrective action taken by the Owner shall be without prejudice to the Contractor's warranty obligations as set forth herein, which shall remain in full force and effect as if such corrective measures had been taken by the Contractor. In addition to the extension of the Warranty Period otherwise provided in this Article, the Warranty Period of any Work item requiring repair shall be extended by the number of days in excess of fourteen (14) days following written demand for correction required to accomplish the repairs to the satisfaction of the Owner. Any repetitive Equipment malfunction identified within the Warranty Period shall remain under warranty until it has been fully corrected and has performed without malfunction for one full year.

#### **ARTICLE IV** **PAYMENT**

**4.0 Acceptance of Final Payment Constitutes Release:** The acceptance by the Contractor of final payment shall release the Owner and the Engineer, as representative of the Owner, from all claims and all liability to the Contractor for all things done or furnished in connection with the Work, and from every act of the Owner and others relating to or arising out of the Work. No payment, however, final or otherwise, shall operate to release the Contractor or its Sureties from obligations under the Contract Documents.

**4.1 Payment:**

A. Invoices:

Invoices for completed Work shall be submitted by the Contractor directly to the payment address shown on the Purchase Order/Contract. Invoices shall show the Owner's Purchase Order or Contract number and either the social security number (for individual Contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations) and are subject to review and approval by the Owner's Contract Manager.

B. Partial Payments:

Requests for partial payments or advance payments must be submitted as part of the Bid or Proposal along with a justification. The Owner reserves the right to accept, reject or negotiate requests for partial payments. If the request is rejected, the Bidder/Offeror must waive the requirement in order to remain in consideration.

C. Refunds:

If the Contractor is declared to be in default, the Owner will be eligible for a full and immediate refund for payments made to the Contractor.

**4.2 Price Firm Period and Cost Increases (if applicable):**

A. Bid/Proposal Prices:

Pricing shall be firm and fixed as originally bid/proposed and accepted. Contract pricing for additional materials, options, accessories, labor (including subcontractors), etc., will be firm and fixed for the initial 12-month contract period. Surcharges (i.e. fuel surcharges) shall NOT be allowed to be added to invoices as an additional line item. All charges shall be included in the price bid on the Bid Summary Sheet or provided as a Cost Proposal in response to an RFP. Any provision of the Contract Documents which imposes any responsibility or performance obligation upon the Contractor shall be deemed to include the phrase 'within the contract price'.

B. Annual Increases for Labor, Materials and Maintenance:

1. After the first year (and any year thereafter), contract prices may not be increased by more than the Cost of Living as indicated in the Consumer Price Index – Urban (i.e., "CPI-U") for the calendar month ending two months before the expiration month of the then current contract year.
2. Increases based upon factors other than the CPI (e.g., Force Majeure, etc.) may be submitted when and, as they occur providing that sufficient detailed supporting documentation is included with the request. The Owner reserves the right to reject any such request or negotiate a mutually agreeable price.
3. The Owner reserves the right to periodically check market pricing for similar services. Based upon those findings the Owner reserves the right to require the Contractor to enter into negotiations to arrive at pricing consistent the competitive marketplace. Failure to arrive at acceptable contract pricing may result in cancellation and rebid the contract.

**4.3 Prompt Payment:**

- A. The Contractor shall take one of the two following actions within seven days after receipt of amounts paid to the Contractor by the Owner for work performed by any Subcontractor(s) under the Contract:

1. The Contractor shall pay its Subcontractor(s) or for the proportionate share of the total payment received from the Owner attributable to the work performed by the Subcontractor under that contract; or
  2. Notify the Owner and any Subcontractor(s), in writing, of his intention to withhold all or a part of the Subcontractor's payment with the reason for nonpayment.
- B. Bidders shall include in their bid submissions either: (i) if an individual Contractor, their social security numbers; and (ii) proprietorships, partnerships, and corporations to provide their federal employer identification numbers.
- C. The Contractor shall pay interest to the Subcontractor(s), on all amounts owed by the Contractor that remain unpaid after seven days following receipt by the Contractor of payment from the Owner for work performed by the Subcontractor under the Contract, except for amounts withheld as allowed under A above.
- D. Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of .10% percent per month.
- E. The Contractor shall include in each of its Subcontracts a provision requiring each Subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier Subcontractor.
- F. A Contractor's obligation to pay an interest charge to a Subcontractor pursuant to the payment clause in this section shall not be construed to be an obligation of the Owner. A contract modification shall not be made for the purpose of providing reimbursement for the interest charge. A cost reimbursement claim shall not include any amount for reimbursement for the interest charge.
- 4.4 Release of Liens and Claims (where applicable):** The Contractor hereby acknowledges and agrees that the Owner is an agency of the Government and as such its property is immune from mechanic's liens. The Contractor hereby waives any and all mechanics' rights it may purport to have, and agrees that it shall neither file nor assert any such lien claim.

As a condition precedent to final payment for the Work, the Contractor shall sign and deliver to the Owner a release of liens and claims sworn to under oath and duly notarized. The release shall state that the Contractor has satisfied all claims and indebtedness of every nature in any way connected with the Work, including, but not limiting the generality of the foregoing, all payrolls, amounts due to subcontractors, accounts for labor performed and materials and equipment furnished, incidental services liens, and judgments.

#### **ARTICLE V** **DELIVERY**

- 5.0 Default:** In case of default by the Contractor, or failure to deliver the supplies or services ordered by the time specified, the Owner, after due notice (oral or in writing), will cure the failure by procuring the items ordered from other sources and hold Contractor responsible for any excess cost occasioned thereby.
- 5.1 Discounts:** If discount for prompt payment is allowed, the discount period will begin on the date of receipt of proper invoice, or material/service, whichever is later.
- 5.2 Strict Adherence to Contract Documents:**
- A. Goods or Services delivered must be strictly in accordance with the Contract Documents and shall not deviate in any way therefrom. Equipment, materials and/or supplies delivered on this order shall be subject to inspection and test upon receipt. If rejected, they shall remain the property of the vendor and the order shall be considered as not received.
  - B. Contractor shall provide the exact quantities specified on this order. The Owner will not pay for overages and if delivered the Owner will – at its sole option and discretion – either return the additional quantities to the seller, at the seller's risk and expense, or accept the additional quantities at no additional cost to the Owner.
- 5.3 Taxes and Freight:**
- A. Deliveries against this order must be free of excise or transportation taxes.
  - B. All prices unless otherwise specified are F.O.B. Destination, Freight Prepaid and Allowed.

#### **ARTICLE VI** **MISCELLANEOUS TERMS**

- 6.0 Assignment of Interest:** The Contractor shall not assign any interest in the Contract and shall not transfer any interest in the same.
- 6.1 Cooperative Procurement:** Subject to the mutual agreement between the parties, any contract awarded on the basis of this solicitation may be used by any public entity to enter into a contract for the services described and defined herein, with the successful Bidder/Offeror.
- Except for contracts for professional services, a public body may purchase from another public body's contract even if it did not participate in the procurement process if the procurement was designated as a cooperative procurement to which other public bodies may participate. This is such a cooperative procurement. However, the Contractor is under no obligation to participate with other public bodies.
- 6.2 Equal Opportunity:** The Upper Occoquan Service Authority does not discriminate against any bidder or offeror in the solicitation or awarding of contracts because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment
- 6.3 Governing Law:** Notwithstanding Offeror's submitted terms and conditions to the contrary and without regard to conflicts of law principles, the solicitation and any resulting Contract shall be governed in all respects by the laws of the Commonwealth of Virginia.
- 6.4 Hard Hat Area:** Contractor's employees shall wear hard hats while working in areas designated as hard hat areas by the Owner's Safety Officer.

- 6.5 Hours of Operation and Holidays:** The Owner's typical work schedule is 8:00 a.m. through 4:30 p.m. Monday through Friday excluding the Owner's holidays. Contractor's access to work sites and work areas shall be limited to these same days and hours, but may be modified with the prior written approval of the Owner's Contract Manager. In any event and under all circumstances, the unilateral decision of the Owner's Contract Manager regarding access to the Owner's facilities shall be final. The following list identifies the twelve (12) Owner's Holidays that are normally taken and should be included by the Contractor in its planned Work schedule as non-Work days:

New Year's Day  
Martin Luther King Day  
President's Day  
Memorial Day  
Independence Day  
Labor Day  
Veterans Day  
Thanksgiving Day  
Friday after Thanksgiving Day  
Christmas Day  
Christmas Eve or Day after Christmas  
New Year's Eve

- 6.6 Partial Invalidity/Waiver:** Neither any payment for, nor acceptance of, the whole or any part of the services by the Owner, nor any extension of time, shall operate as a waiver of any provision of any Contract resulting from this IFB/RFP, nor of any power herein reserved to the Owner, or any right to damages herein provided, nor shall any waiver of any breach of any Contract be held to be a waiver of any other or subsequent breach. Failure of the Owner to require compliance with any term or condition of any Contract shall not be deemed a waiver of such term or condition or a waiver of the subsequent enforcement thereof.
- 6.7 Taxes:** The Owner is exempt from Federal Excise Taxes, Virginia State Sales and Use Taxes, and the District of Columbia Sales Taxes and Transportation Taxes. The Owner's federal tax identification number is 54-0902952.



Solicitation Response Form

IFB/RFP Number: 22-02

Title: Digester Gas Engine Generator and Diesel Gas Ending Generator Emissions Testing

Company Identification

Name  
Mailing  
Address  
Remit  
Address  
FEIN #

Contact Name  
Title  
Phone  
Fax  
Email  
VA SCC ID #

*\*Pursuant to VA Code § 2.2-4311.2, an offeror organized or authorized to transact business in the Commonwealth must include its VA SCC provided ID# or proof of pending application for SCC authorization. If offeror is exempt from SCC authorization requirement they shall include, as a separate attachment, a statement accurately and completely reflecting why the offeror does not need to be so authorized. See Section 2.2 in the Standard Terms and Conditions.*

Company Classification

Principal place of business located in (state) \_\_\_\_\_ State of incorporation \_\_\_\_\_  
Check one: Sole Prop. ☐ Partnership ☐ Limited Partnership ☐ Corporation ☐ Limited Liability Corporation ☐  
Check all that apply: Small ☐ Women Owned ☐ Minority Owned ☐ Service Disabled Veteran Owned ☐

Addenda Receipt Confirmation:

Addendum # \_\_\_\_\_ ☐, Addendum # \_\_\_\_\_ ☐, Addendum # \_\_\_\_\_ ☐, Addendum # \_\_\_\_\_ ☐, Addendum # \_\_\_\_\_ ☐

Confirmation of Compliance to Solicitation Requirements, Terms and Conditions

The undersigned offers and agrees to furnish the goods, and/or services requested in solicitation 22-02 in accordance with the attached offer. The undersigned certifies that they have read and understand all standard and supplemental terms and conditions provided in the aforementioned solicitation including but not limited to Standard Terms and Conditions Section 2.1 - Collusion, Section 2.2 - Compliance with Laws and Section 2.9 - Ethics in Public Contracting. The attached offer is in accordance with all specifications and offeror accepts all terms and conditions contained in and incorporated by reference into the solicitation,

☐ with no exceptions.  
☐ with the following exceptions/modifications (provided as separate attachment).

**Note: Any material exceptions to solicitation specifications, terms or conditions will render an offer non-responsive. UOSA, in its sole discretion, will determine what constitutes a material exception.**

Authorized Signature \_\_\_\_\_  
(must be original, ink signature)  
Printed Name \_\_\_\_\_

Date \_\_\_\_\_  
Title \_\_\_\_\_

Submission Checklist – The following documents and forms are required as part of your submission. See Section 1.9

Solicitation Response Form (this form) ☐  
Attachment C: Bidders Qualification  
Attachment D: References  
Attachment E: Bid Summary Sheet ☐

Attachment F: Emission Protocol & Emission Report  
☐  
☐  
☐

**ATTACHMENT C – BIDDERS QUALIFICATIONS****General Qualifications**

1. How many years' experience with submersible pumps similar to UOSA's does your organization have?  
☐ < 5 years      ☐ 5-15 years      ☐ 15-30 years      ☐ > 30 years

2. Has your organization or any of its officers, directors, or owners had judgment entered against them within the past 10 years for the breach of contracts for governmental or non-governmental construction?  
☐ Yes      ☐ No

If **yes**, give complete circumstances for each occurrence on a separate sheet(s) of paper. Attachment No. \_\_\_\_\_.

3. Have any of your officers, directors, UOSA, project managers, procurement managers, or chief financial officers been convicted within the past 10 years of a crime related to governmental or non-governmental construction?  
☐ Yes      ☐ No

If **yes**, give complete circumstances for each occurrence on a separate sheet(s) of paper. Attachment No. \_\_\_\_\_.

4. Is your organization or any of your officers, directors, or owners currently debarred by any municipality, county, state, or federal agency?  
☐ Yes      ☐ No

If **yes**, give complete circumstances for each occurrence on a separate sheet(s) of paper. Attachment No. \_\_\_\_\_.

5. Has your organization ever been a party in any litigation of any type on Work for which your organization was contracted by any municipal, county, state, or federal agency?  
☐ Yes      ☐ No

If **yes**, give complete circumstances for each occurrence on a separate sheet(s) of paper. Attachment No. \_\_\_\_\_.

**Safety Qualifications**

6. Does your organization have a written Safety program  
☐ Yes      ☐ No

7. If yes, does it include (check all that applies):  
 Lock-out/Tag-out ☐      Confined Space ☐      Rigging ☐      Defensive Driving ☐

**Documentation Practices**

8. Is your company Certified (check all that applies)?  
☐ Yes, ISO 9001      ☐ Yes, ISO 14001      ☐ Yes, ISO 45001      ☐ Yes, other \_\_\_\_\_ ☐ No

9. Does your organization have a standard template for pump evaluations?  
☐ Yes      ☐ No

10. If yes, please attach an example to the solicitation and indicate if it include (check all that applies):  
 Photos ☐      Root Cause ☐      Recommendations ☐      Defensive Driving ☐

### Turn-around time

11. Can your organization respond to emergency requests within 24 hours?  
☐Yes    ☐No
12. What is your company's normal lead time to  
 To Pick up and evaluate a pump? \_\_\_\_\_  
 To Pick Up and Refurbish a pump? \_\_\_\_\_  
 Time Between PO and Completion of Pump Maintenance? \_\_\_\_\_  
 Lead time for a New pump with in-kind replacement? \_\_\_\_\_

### Tasks

Which of the following services does your organization provide?

- a. Pump Evaluations (Items A-1 on Attachment E)  
 Yes ☐ No ☐ We do not provide this service ☐  
 Any limitation (pump size, model number, manufacturer, etc?)  
 Yes ☐ (please provide additional information) No ☐
- b. Pump repair/refurbishment (A-2 on Attachment E)  
 Any limitation (pump size, model number, manufacturer, etc?)  
 Yes ☐ (please provide additional information) No ☐
- c. Pump Maintenance (A-3 on Attachment E)  
 Any limitation (pump size, model number, manufacturer, etc?)  
 Yes ☐ (please provide additional information) No ☐
- d. Pump replacement in-kind (A-4 on Attachment E)  
 Any limitation (pump size, model number, manufacturer, etc?)  
 Yes ☐ (please provide additional information) No ☐

***UOSA reserves the right to ask Bidders for any additional information that UOSA, in its sole discretion, deems necessary to make an award.***

**THIS FORM MUST BE SUBMITTED WITH YOUR BID/PROPOSAL**

**End Attachment C**

**ATTACHMENT D – REFERENCES****(this form may be used or bidder may submit their own form created in identical format to below)**

Reference 1:

Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work:	

Reference 2:

Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work:	

Reference 3:

Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work:	



Reference 4:

Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work:	

Reference 5:

Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work:	

**THIS FORM (or similar form) MUST BE SUBMITTED WITH YOUR BID/PROPOSAL**

**End Attachment D**

### Bid Summary Sheet

Bidder acknowledges and agrees to use the proposed protocol, as outlined herein, at the firm fixed price bid below for services of performing the required emission testing and generating the performance test

report. Yes\_\_\_\_\_No \_\_\_\_\_

Provide firm fixed cost for performing one (1) each required emission testing and generating the performance test report per all specifications within this solicitation.

Line No.	Item	Cost
1	Cogeneration Unit ( Subpart JJJJ)	
2	Alco Generator (Subpart ZZZZ)	
3	Caterpillar Generator (Subpart ZZZZ)	
4	Caterpillar Generator (Subpart ZZZZ)	
5	<b>Total Bid Amount</b>	

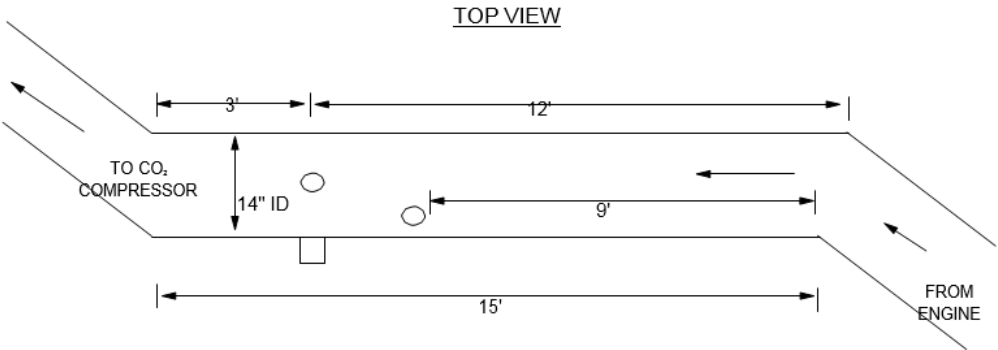
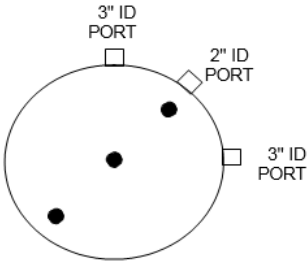
\*The price bid shall include the all costs as specified in this solicitation. All costs - labor, materials, equipment rental, travel, shipping, etc. must be included. Additional charges not included in the price bid will not be considered. \*

**THIS FORM MUST BE SUBMITTED WITH YOUR BID/PROPOSAL**

**End Attachment E**

UOSA SI ICE  
Test Port and Traverse Point Locations

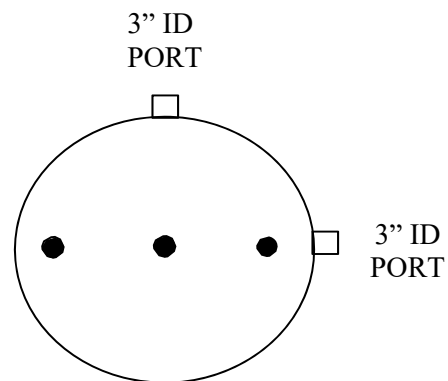
O <sub>2</sub> TRAVERSE POINT LOCATIONS	
POINT NO.	DISTANCE FROM INSIDE NEAR WALL (INCHES)
1	2 3/8
2	7
3	11 5/8



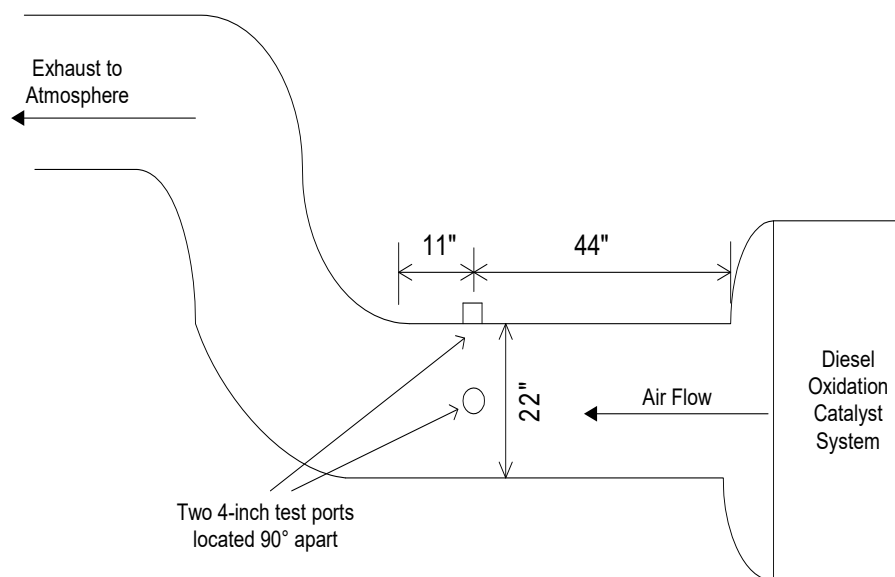
DRAWING NOT TO SCALE

# ALCO AND CATERPILLAR RICE TEST PORT AND TRAVERSE POINT LOCATIONS

O <sub>2</sub> TRAVERSE POINT LOCATIONS	
POINT NO.	DISTANCE FROM INSIDE NEAR WALL (INCHES)
1	3.7
2	11.0
3	18.3

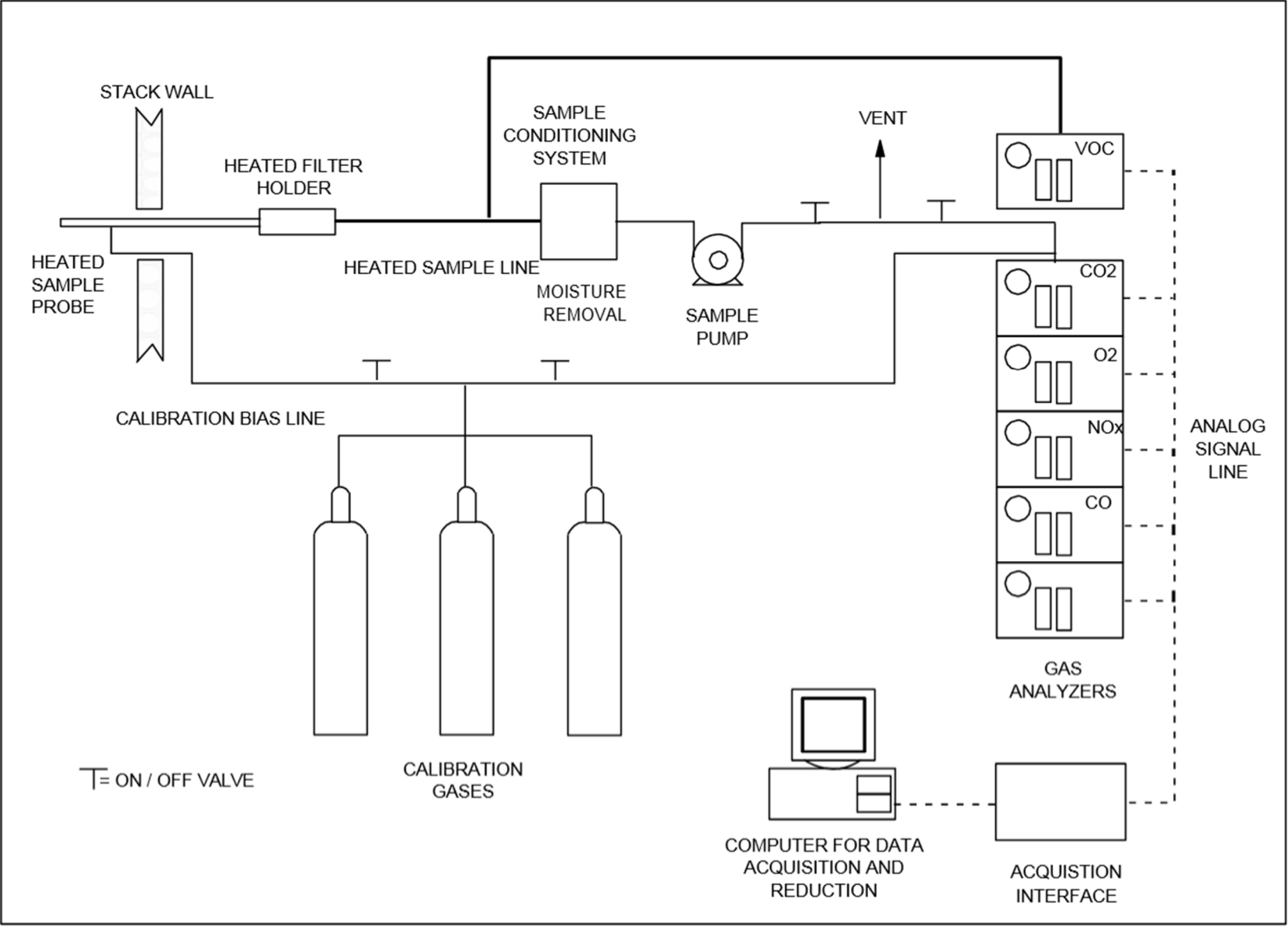


## SIDE VIEW



**Drawing not to scale**

UOSA SI ICE  
Example Sampling System Test Port and Traverse Point



## Example Calculations for Bias Corrections and Emissions Rates of Nitrogen Oxides and Carbon Monoxide

### 1. Bias corrected value of Nitrogen Oxides, dry basis (ppm/v).

$$Cd = \frac{(AVG - Z_{bias})}{(S_{bias} - Z_{bias})} \times \text{SPAN GAS}$$

Where:

$Cd$  = Nitrogen Oxides concentration measured on a dry basis (ppm/v), bias corrected.

$AVG$  = Average  $NO_x$  concentration for the test run.

$Z_{bias}$  = The average of pre and post test zero bias checks.

$S_{bias}$  = The average of pre and post test span bias check.

$\text{SPAN GAS}$  = The calibration gas closest to the gas stream concentration, which was used for the BIAS check.

Note: Bias correction is the same for  $O_2$ ,  $CO_2$ , and  $CO$ .

### 2. Nitrogen Oxides concentration dry basis, ppm @ 15% $O_2$ .

$$NO_x(\text{corr}) = \frac{Cd \times [20.9 - 15\% O_2]}{[20.9 - O_2(\text{measured})]}$$

Where:

$NO_x(\text{corr})$  = Nitrogen Oxides concentration corrected to 15%  $O_2$ .

$O_2(\text{measured})$  = Average oxygen concentration for test run as measured, %.

Note:  $O_2$  correction for  $CO$  is calculated using the above equation.

### 3. Nitrogen Oxides mass emission rate, dry basis (lb/hr).

$$E1 = \frac{Cd \times Qs(\text{std,dry}) \times 46.01 \times 60 \text{ min/hr}}{385.35 \times 10^6}$$

Where:

$E1$  = Nitrogen Oxides mass emission rate, dry basis (lb/hr).

$Cd$  = Nitrogen Oxides concentration measured on a dry basis (ppm/v), bias corrected.

$Qs(\text{std,dry})$  = Volumetric flow rate of dry stack gas, dscfm.

46.01 = Molecular weight of  $NO_x$ .

$385.35 \times 10^6$  = Conversion factor from ppm to lb.

Note: lb/hr mass rate for  $CO$  is calculated using the above equation except the specific molecular weight of  $CO$  (28.01) is used.

**4. Nitrogen Oxides emission factor, g/hp-hr.**

$$E2 = \frac{E1 \text{ (lb/hr)} * 453.59 \text{ (g/lb)}}{\text{hp/hr}}$$

Where:

E2 = Nitrogen Oxide emissions in grams per brake horse power, g/hp-hr.

453.59 = Conversion factor from lb to grams.

hp/hr = Brake horse power per hour from manufacturer technical data table.

Note: g/hp-hr mass rate for CO is calculated using the same equation.

**End of Attachment – I**