

Upper Occoquan Service Authority Invitation for Bids # 24-06 Cub Run Pump Station Generator Control System Upgrade - Reissue

Issued By:

UOSA Purchasing Department

Administration Building 14631 Centreville, Virginia 20121-2506 703-830-2200 | purchasing@uosa.org | http://www.uosa.org

Schedule:

Date Issued:	Tuesday, September 19, 2023 12:00 p.m.
Optional Pre-Bid and Site Visit: 14631 Compton Road, Centreville, VA Potomac S/2 Conference Room	Initial pre-bid was held on 24-01; no additional pre-bid will be held for this re-issue; NO CHANGE IN REQUIREMENTS OR SCOPE FROM ORIGINAL ISSUE
Deadline for Questions:	Friday, September 22, 2023 5:00 p.m.
Bids Must be Received On Or Before:	Friday, September 29, 2023 2:00 p.m.

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.

IFB/RFP Number: 24-06

Purchasing Department

(703) 830-2200

Purchasing@uosa.org

Solicitation Response Form Title: Cub Run Pump Station Generator Control System Upgrade - Reissue

Company Identification			
Name	Contact N	lame	
Mailing	Title		
Address	Phone		
Remit	Fax		
Address	<u>Email</u>		
FEIN #	transact busi proof of pend authorizatior statement ad	O # O VA Code § 2.2-4311.2, an offeror organized or iness in the Commonwealth must include its VA SCC ding application for SCC authorization. If offeror is expanded in requirement they shall include, as a separate occurately and completely reflecting why the offeror provided. See Section 2.2 in the Standard Terms and Completely.	provided ID# or xempt from SCC attachment, a r does not need
Company Classification			
Principal place of business located in (state)		State of incorporation	
Check one: Sole Prop.□ Partnership□ Lim			
Check all that apply: Small□ Women Owne	d□ Minority Owned□ Se	ervice Disabled Veteran Owned□	
Addenda Receipt Confirmation:			
Addendum#, Addendum#	□, Addendum #□	l, Addendum#□, Addendu	m#□
Confirmation of Compliance to Solicitation Req	uirements, Terms and Con	ditions	
The undersigned offers and agrees to furn with the attached offer. The undersigned of terms and conditions provided in the afor Conditions Section 2.1 - Collusion, Section 2.1 - The attached offer is in accordance with all sections.	ertifies that they have readlementioned solicitation in 2 - Compliance with Laws	ad and understand all standard and social and social and social and section 2.9 - Ethics in Public Con	supplementad Terms and ntracting.
incorporated by reference into the solicitation of the solicitati	on,		amed in und
Note: Any material exceptions to solicit responsive. UOSA, in its sole discretion,	• •		on-
Authorized Signature (must be original, ink signat	Date		
Printed Name	Title		
Submission Checklist – The following documer	ts and forms are required	as part of your submission. See Section	on 2.11
Solicitation Response Form (this form)	Propose	d Project Schedule per 2.11	
Attachment B	☐ Contract	or's Safety Plan per 2.11	
Attachment C	□ Warrant	y Information per 2.11	
Critical Components Listing per 2.11	☐ Valid Cor	ntractor's and Business Licenses	
Attachment D - Completed Bid Form			

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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 objective of this Invitation for Bid (IFB) is to award a contract for replacement of existing PLC's and breaker controls with a new generator control system at the Cub Run Pump Stations.

1.3. Period

The initial term of any contract resulting from this solicitation shall be from the date of contract execution for a period of two (2) years. Two (2) additional renewal periods of twelve (12) months each may be exercised by UOSA in order to complete all the required upgrades.

1.4 Contract Award

A contract will be awarded to the lowest responsive and responsible Bidder as delineated in this IFB and will be based on the total lump sum cost as indicated on line 1 of the Bid Summary Sheet.

1.5 Pre-Bid Meeting and Site Inspections

There will be a scheduled pre-bid meeting as indicated on the cover sheet of this IFB. The pre-bid conference will include a tour of the pump station and allow prospective bidders the ability to and inspect the location where the work will be performed. Additionally, the meeting 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.

1.6 Manufacturer Brand Name "or Equal"

Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict bidders to the specification and or manufacturer name, but conveys the general style, type, character, and quality of the article desired. Any material which UOSA, in its sole discretion, determines to be the equal of that specified, considering quality, workmanship, test results, economy of operation and suitability for the purpose intended shall be accepted. The bidder is responsible to clearly and specifically indicate the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable UOSA to determine if the product offered meets the

requirements of the solicitation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid non-responsive.

1.7 New and "True Tested" Equipment

- A. All equipment furnished under any contract resulting from this IFB shall be factory new, unused equipment
- B. No Beta items will be accepted. All equipment submitted for consideration shall be "True Tested" that is: Has been in production and certified for the intended application that the equipment has been designed and has been in use in commercial environments for a period of no less than three (3) years.

1.8 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.

1.9 **Ouestions 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.

1.10 Liquidated Damages

UOSA reserves the right to include a Liquidated Damages clause in any Contract that may be issued as a result of this IFB. When a liquidated damages clause is used in a construction, modification, or repair contract, the rate(s) of liquidated damages to be assessed against the contractor may be for each day of delay and the rate(s) will, as a minimum, cover the estimated cost of inspection and superintendence for each day of delay in completion (per diem rate stipulated in the Task Order) plus any other losses that may be incurred by UOSA due to project delay of the specific Task Order. Whenever UOSA suffers other specific losses due to the failure of the Contractor to complete the Work on time, the rate(s) may also include an amount for specific items. Examples of specific losses are:

- A. The cost of substitute facilities;
- B. The rental of buildings and/or equipment.

A Liquidated Damages clause is not to be construed as a penalty, but as a means to assess damages when both (1) the time of delivery or performance is such an important factor in the award of the Task Order that UOSA may reasonably expect to suffer damage if the delivery or performance is delinquent, and (2) the extent or amount of such damage would be difficult or impossible to ascertain or prove.

1.11 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	500	IFB Title

1.12 Bid Submittal Requirements

All bid pricing should be submitted on the attached Bid Summary Sheet, Attachment D. By submitting a bid in response to this solicitation, whether on the attached bid submission form or other form, bidder agrees to be bound by the terms, conditions and specifications contained herein along with any addenda to this solicitation. Failure to use the attached Bid Summary Sheet 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 form or some other form, the bid shall be declared to be non-responsive.

Bidder shall submit with their Bid the name, address, telephone number and point-of-contact of a minimum of three municipalities or firms, for which the bidder has provided similar services and equipment as specified herein within the preceding 5 years. References may be checked prior to Award. UOSA reserves the right to obtain additional references (including UOSA), either directly through the Bidder or other legitimate sources. UOSA reserves the unilateral right to reject any Bid for which an unacceptable reference is identified (including UOSA).

1.13 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.

1.14 Net Prices

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.

End Section 1

SECTION 2 – SCOPE OF WORK

2.1 Background

The Upper Occoquan Service Authority (UOSA) operates the Cub Run Pump Station as part of its Delivery Systems. The Pump Station is serviced by two (2) Kohler 1350KW back up generators. The existing control system for these generators is aging and UOSA is seeking a Contractor to replace the existing PLCs and breaker controls with a new generator control system.

2.2 Objective

The Contractor shall provide all labor and materials to remove outdated and obsolete PLCs that currently control the Cub Run Pump Station generator system consisting of two (2) Kohler 1350KW generators and install Woodward XT3400 EasYgen controllers (or equivalent) meeting the requirements listed herein. The service supplied by the Contractor shall be a full "turnkey" installation requiring minimal UOSA staff involvement. The requirements of this Work shall include a Control System that performs, at a minimum, the following functions (detailed specifications can be found in Section 2.5 of this IFB):

- o Replace current Modicon and Quantum PLC's
- o Control two (2) Kohler 1350KW generators, paralleled on a common emergency buss
- o Utilize Modbus TCP communication protocol.
- o Transitioning generators to utility busses in a closed transition and return to closed after an outage.
- o Control main, tie, load bank and generator breakers.
- o Retain all current modes of operation (see equipment testing and facility startup requirements)
- o Accept and control all current I/O of existing system, to include but not limited to those described in Section 2.5.
- o Transition in a closed manner from the utility to the generators in Test mode and return to utility without power interruption.
- o Interface with Operator Interface Terminal (OIT)* supplied and programmed by Owner.
- o Control and Monitor:
 - Two Wave Pro Low Voltage Circuit Breakers with 4000A plugs Main breakers.
 - Two 750 Management relays for Main breakers.
 - Two Wave Pro Low Voltage Circuit Breakers with 2400A plugs Generator breakers.
 - Two 489 Management relays for Generator breakers.

All Work shall be phased to ensure half of the electrical gear shall remain available.

2.3 Schedule

UOSA anticipates completing the generator control upgrades and replacing current switchgear breaker protective relays over the course of 24-30 months in phases. The first phase will consist of the generator control upgrades to be completed not later than June 30, 2024 and the second phase to be completed sometime in UOSA's Fiscal Year 2025.

2.4 Submittals

Submittals to Owner can be submitted in physical form or electronic PDF

format. The Contractor shall be required to submit to:

UOSA Project Manager (For physical submittals)

Upper Occoquan Service Authority 14631 Compton Road Centerville, Virginia 20121

Email the UOSA Purchasing Agent and the UOSA Project Manager (For Electronic Submittals)

For all submittals the Owner will send the Contractor receipt that the submittal has been received and another receipt when it has been approved. The Contractor shall not start manufacturing of equipment until they have received a receipt of the approved submittal.

Delays caused by the need for resubmittal shall not constitute a basis for an extension of Contract Time or any claims for additional compensation.

The Owner shall have 14 days from the date of the receipt to review all submittals.

The Contractor shall supply the Owner with a list of all proposed submittals (submittal log) within 14 days of receiving the Purchase Order.

At a minimum the Contractor shall provide the following submittals:

- a. Submittal Log
- b. Schedule and Sequence of construction plan
- c. Woodward XT3400 EasYgen controller or equivalent
- d. Woodward LS-6 breaker controller or equivalent
- e. All Network and Communication devices
- f. Control cabinets and revisions to existing panels
- g. Breaker protective relays
- h. Shop Drawings
 - 1. Shop Drawings consist of all drawings, diagrams, illustrations, schedules, and other data that are specifically prepared by or for the Contractor to illustrate some portion of the Work; and all illustration, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a manufacturer or Vendor and submitted by Contract to illustrate material or equipment for distinct portion of the Work. Data submitted shall have sufficient detail to allow determination of compliance with the Contract Documents. The Contractor shall submit, as applicable, the following for all prefabricated or manufactured structural, architectural, civil, mechanical, electrical, plumbing, process stems, and equipment.
 - 2. Shop Drawings or equipment drawings, including dimensions, size, and

- location of connections to other Work (if applicable), and weight of equipment.
- 3. Catalog information and cuts clearly marked to specify the materials, equipment, and other information applicable to the Work. Information which is not applicable shall be clearly crossed out.
- 4. Shop Drawing Submittal processed by Owner do not become Contract Documents and are not Change orders; the purpose of Shop Drawings review is to establish a reporting procedure and is intended for Contractor's convenience in organizing the Work and to permit Owner to monitor Contractor's progress and understanding of the design.
- 5. Should the Contractor propose any item on its Shop Drawing, or incorporate an item into the Work, and that item should subsequently prove to be defective or otherwise unsatisfactory (regardless of the Owner's reviews), the Contractor shall, at its own expense, replace the item with another item that will perform satisfactorily.
- i. Factory testing plan
- j. List of special tools required for checking, testing, parts replacement, and maintenance. Special tools are those that have been specially designed or adapted for use on parts of the equipment, and that are not customarily and routinely carried by maintenance mechanics.
 - 1. List of special tools furnished with the equipment.
 - 2. List of materials and supplies required for the equipment prior to and during startup.
- k. Software and device configurations
- 1. Wiring and control diagrams of systems and equipment.
 - 1. Generator controllers
 - 2. Breaker controllers
 - 3. Protective relays
- m. Manufacturer's Certification of Proper Installation (COPI)
 - 1. Before the startup of any new equipment, a COPI form in must be submitted to the Owner.
 - 2. The COPI shall cover the following items:
 - i. The product or system had been inspected by a manufacturer's authorized representative and proper adjustments have been made.
 - ii. The product or system has been serviced with the proper lubricants.
- n. Full system testing plan
 - 1. Contractor shall demonstrate each mode of operation

- 2. Contractor shall Demonstrate system functionality during a single generator outage
- 3. Contractor shall demonstrate testing of the generators offline using the load bank
- o. Operation and Maintenance (O&M) Manuals
 - 1. Approved O&M Manuals shall be prepared and assembled for all equipment incorporated into the Work.
 - 2. Owner will determine adequacy of each O&M Manual as to content, organization, and quality. Prior approval of O&M Manuals does not relieve the Contractor of the responsibility to revise and resubmit manuals, or portions of manuals, found to be missing or incomplete. If missing or incomplete information is found after an O&M Manual is approved, submit new information in accordance with this article. Complete resubmittal of the electronic O&M Manual will be required. Submittal status may change after initial approval if prior submittal is found to be deficient after the initial approval.
 - 3. The summary maintenance form shall be filled out and included within the O&M Manual.

p. Record Drawings

- 1. Service Records: Contractor shall deliver service records maintained on each item of equipment, prior to Partial Utilization.
- 2. Record Drawings shall be marked to show actual installation where installation varies substantially from the Work shown on the Contract Drawings or where new information is provided.
- 3. Where Shop Drawings more accurately portray Work, record appropriate cross-references on the Contract Drawing portion of the Record Drawings.
- 4. Accurately present and annotate all applicable Requests for Information (RFI), and Changes in the Work (such as Change Orders) on the Record Drawings. Maintain and submit with final Record Drawings a list of Drawings modified for each change.
- 5. Final As Built Drawings
- q. Proposed staff field training (4 hours for operator staff and 4 hours for technical staff)

2.5 Equipment Specifications

2.5.1 General

- 2.5.1.1 The Contractor shall provide and install two (2) new generator control systems to replace existing PLCs and breaker controllers and installation or repair of control system panel doors to incorporate new control system. The following are the approved Manufacturers for generator and breaker controllers:
 - 1. Woodward XT3400 EasYgen controller
 - 2. Woodward LS-6 breaker controllers
 - 3. Or equal as approved by Owner.
- 2.5.1.2 The existing redundant PLC based system shall be replaced by a new control system specifically designed for control of the emergency generator and switchgear systems. The

- PLC hardware and all control/monitoring devices, including the PLC, OIT, Dial Gauges, Synchroscope, Indicator Lights, and selector switches mounted on or inside the control panel shall be replaced by all new hardware.
- 2.5.1.3 The existing PLC system is a Hot-Stand-By Quantum PLC and RIO. The contractor shall be responsible for surveying all existing hardware and terminations in order to provide a fully functional replacement control system.
- 2.5.1.4 Total space requirements for new control system components shall not exceed the existing PLC and RIO components. The new control system shall be installed in the general same location of the existing PLC and RIO hardware.
- 2.5.1.5 Specified control devices and instruments are for general guidelines only. The manufacturer shall provide all devices required for satisfactory control, monitoring and general functionality of existing generators and switchgear.
- 2.5.1.6 The contractor shall remove all hardware slated for replacement by the new control system and return all removed components to the owner. This includes all PLC parts, OITs, network and communication devices, and any other parts if requested to be retained by the owner. Fasteners and conductors, such as wire, screws, cables, wire ties shall be disposed of properly.

2.5.2 Master Control System

- 2.5.2.1 The switchgear and generator Master Control System (MCS) shall consist of synchronized controllers with integrated mains decoupling and protection features. The MCS shall be capable of complex power management with multiple utility feeds, bus tie breakers and group breakers in combination equipped genset controllers. The system shall implement redundant buss controllers running among the peer controls to ensure that availability of power generation assets shall not be compromised by a single point of failure.
- 2.5.2.2 The MCS shall standardize on a single hardware platform. The hardware shall be Off-the-shelf that is software configurable for one/two breaker control, gensets / genset groups handling, and stand-alone/multi-unit application.
- 2.5.2.3 The MCS Switchgear Breaker controllers shall have the following capabilities:
 - a. MCS shall enable several redundant communication schemes with peer controllers.
 - b. The MCS Controller shall be able to interface with up to 32 controls.
 - c. Independent true RMS AC measurement (system A, system B and auxiliary voltage).
 - d. Remotely selectable breaker transition modes: Open, Closed, Short parallel generator set's starting, loading, running, paralleling, closed transition load assumption, and transfer.

- e. Internal power calculation with option to feed-in active power from external transducer.
- f. Phase match or slip frequency synchronization with voltage matching.
- g. Built-in protection elements including ROCOF, phase shift and flexible limits for custom protection.
- h. Segment control for the load sharing.
- i. Automatic date and time synchronization between the other units and the connected controls.
- j. Detailed interface communication diagnostics to monitor, visualize and troubleshoot all the connected controls in the network.
- k. Custom logic and configurable I/Os driven by Logic programming.
- 1. Ethernet Modbus TCP Slave interface Biding standard and customizable data mapping.
- m. The Switchgear Breaker Controller shall be Woodward easYgen LS-6XT or equal.
- 2.5.2.4 The Generator Paralleling Controllers (GPC) shall have the following capabilities:
 - a. The Genset controller shall provide complete engine-generator control and protection with advanced, peer-to-peer paralleling functionality.
 - b. Unit shall be capable of integrated programmable logic functionality without the need for additional PLC control and shall integrate with Pump Station PLC-based control systems.
 - c. The genset control shall provide complete engine-generator control and protection, genset breaker synchronization, dead bus arbitration and isochronous/droop load share capabilities.
 - d. True RMS voltage and current sensing of generator bus and mains for reduced susceptibility to harmonics
 - e. Serial Modbus RTU (slave) communication for SCADA annunciation and external control.
 - f. Configuration via PC/laptop with downloadable and archivable configuration parameters.

- g. Connectivity with the OIT Remote Touch Panel for complete annunciation and control. Connectivity shall be over Ethernet Modbus TCP protocol.
- h. AMF (automatic mains failure) detection, decoupling and emergency run with dead bus close
- i. Automatic synchronization: phase-match, positive/negative slip-frequency, run-up (dead field) paralleling
- j. Circuit breaker close/open control: GCB only, GCB and MCB (ATS function), or external (no) control
- k. Proportional load sharing (isochronous or droop) of up to 32 gensets, regardless of individual size
- 1. Base loading, import/export control, asymmetrical loading (through external base load input)
- m. Automatic load dependent start/stop for improved generation system efficiency
- n. Asynchronous (induction) generator control
- o. Engine and generator protection functions, with fully programmable setting.
- p. The Generator Paralleling Controller shall be Woodward easYgen-3400XT or equal.

2.5.2.5 Redundant Power Sources

- a. The MCS and the GPC shall be powered by more than one power source. The power sources shall be on circuit protection and paralleled to provide continuous power without interruption to the controllers.
- b. The primary power shall be 24 VDC sourced from the pump station line power and DC power supplies.
- c. The secondary power source shall be 24 VDS sourced from the generator battery bank.

2.5.3 Operator Interface Terminal

- 2.5.3.1 The OIT shall be mounted on the Master Control Panel front door. This OIT shall provide access /display of various MCS parameters and allow data entry and modification of parameters as described in the function control sequence of this specification. The OIT shall exchange data directly and continuously with the MCS and GPC for display and control. The OIT programming shall be developed by the owner. (UOSA) It shall have the following features:
 - a. The OIT shall be of Touch Panel type utilizing resistive or capacity technology for operator input. The display shall be color active matrix, minimum 17 inch diagonal and minimum 1024 by 768 resolution

- b. The OIT shall have direct Ethernet connection to the MCS and GPC network and communicate over the Modbus TCP protocol.
- c. The OIT shall be powered from the same redundant power source as the MCS and GPC.
- d. The OIT shall be developed in AVEVA Intouch HMI software. (Formerly Wonderware Intouch.) All licensing of the software shall be provided by the owner.
- 2.5.3.2 The OIT shall be developed by the owner (UOSA) with direct coordination with the control system contractor. All needed data for development of the software shall be provided to the owner for concurrent development of the OIT database. All graphics development shall be done with coordination between the owner and contractor. At minimum, the following graphical interfaces and associated tag database shall be developed:
 - a. Main menu screen with listing of major system specific screens.
 - b. System overview screen with animated graphics of the electrical one line diagram.
 - c. System control screen.
 - d. System metering screen.
 - i. AC Voltage
 - ii. AC Ammeter
 - iii. Power Meter
 - iv. Frequency Meter
 - v. Power Factor Meter
 - vi. Lockout Relay
 - e. Generator set control screen.
 - f. Generator set metering screen.
 - g. Generator setting and parameters screen.
 - h. Generator demand, control, and load shed screen.
 - i. Engine monitoring screen.
 - j. Fuel tanks and ventilation system screen
 - k. Utility control screen.
 - 1. Utility metering screen.
 - m. Utility settings screen.
 - n. Current and Historical Alarms screens.
 - o. Trend screens
 - p. Operator and Password entry screen.
- 2.5.3.3 The OIT shall be tested at the Factory Acceptance Test (FAT) along with a fully configured control system. All possible tests shall be executed from the

OIT to command the desired test. All possible status shall be monitored at the OIT during the FAT. A successful completion of the FAT is required prior to shipment of hardware to the project site.

2.5.4 Controllers

- 2.5.4.1 Controllers must be able to perform the following functions of transferring the plant load, or approved equivalent modes of operation:
 - a. Retain all current modes of operation (see equipment testing and facility start up requirements)
 - 1. Full System Test (Fail Utility Mode, open transition)
 - 2. Test Generators offline (loadbank test)
 - 3. Transfer Generators to Bus A (closed transition)
 - 4. Transfer Generators to Bus B (closed transition)
 - 5. Transfer Generators to Bus A&B (closed transition)
 - b. Automatic Operation Based on Pump Station Operator-Initiated Signals: These operations shall be an automatic closed transition load assumption from the utility and load return to the utility. The pump station operator makes certain decisions to initiate generator startup.
 - I. The pump station operator decides which pump station buses to transfer to the generator. The TRANSFER BUS A/BUS B/ BUSES A AND B TO GENERATOR switch is used on the OIT to select the pump station buses for transfer to the generators. If Bus A is selected, only Bus A will be loaded on the generators. If Bus B is selected, only Bus B will be loaded on the generators. If Buses A and B are selected, both Bus A and Bus B will be loaded on the generators. This switch provides the ability to test the generators under load with half of the plant load.
 - II. The pump station operator decides to start the generator system from the OIT by initiating a transfer to bus A, B, or Both. All available generators shall start.
 - III. The generator controller initiates the "closed transition" generator startup sequence as follows:
 - 1. Step 1: Make sure that the two tie breakers are open. Close the generator output circuit breaker for the first generator to reach operating voltage and frequency.
 - 2. Step 2: Assume BUSES A AND B have been selected with the TRANSFER BUS A/BUS B/BUSES A AND B TO GENERATOR switch for the following sequence. If a single bus is selected, the sequence for the other bus is not reached. After the engine generators are running on generator bus "C," the generator bus shall be brought into synchronism with bus "A" (Utility Source A), and the tie breaker between busses "A" and "C" shall close (closed transition) and parallel the generator with Utility Source A.
 - 3. Step 3: The engine generators shall be gradually loaded until they have assumed the entire bus "A" load, at which point the Utility Source A main breaker shall open. The main breaker shall be locked out during the generator operation until such time that it is called to close again by the control system. This process shall occur within a preset adjustable (0 to 10 minutes) time period not *to* exceed 60 seconds. During parallel operation with the utility source, the generator control system shall regulate the output power of the engine generators so that they never exceed the actual feeder loads connected to bus "A: in order to prevent a reverse power flow to the utility system.
 - 4. Step 4: Next, generator bus "C" shall be brought in synchronism with the Utility Source B bus "B". The tie breaker between bus "B" and "C" shall close

- paralleling the generator with Utility Source B.
- 5. Step 5: Step 3 is repeated for bus "B" to transfer all bus "B" loads to the generators. When the load transfer is complete, the Utility Source B breaker is opened. The Utility Source B main breaker shall be locked open during the generator operation until such time that the control system causes it to close. Now the generators will be supplying the entire pump station load. The controller shall monitor satisfactory operation of the generator system and maintain all crucial parameters for each generator within limits.
- 6. Step 6: Should a power failure occur during any of Steps 3, 4, or 5, the generators shall continue feeding the power to the pump station.
- 7. Step 7: When the operator is ready to transfer load back to the utility, the pump station operator ends the test on the OIT which sends a signal to the generator controller ending the test. The controller shall then initiate a "closed transition return to utility" sequence as described in the following steps.
- 8. Step 8: Plant load bus "A" shall synchronize with Utility Source A and the Source A main breaker shall close, putting the generators in parallel with Utility Source A. The generators shall transfer all loads to the utility source and open the tie breaker between pump station load bus "A" and generator bus "C." This operation shall not require more than 60 seconds.
- 9. Step 9: Plant load bus "B" shall synchronize with Utility Source B and the Source B main breaker shall close, putting the generators in parallel with Utility Source B. The generators shall transfer all load to the Utility Source B, and the tie breaker between generator bus "C" and pump station load bus "B" shall open. At this point the generators are running at no load, and are still connected to generator bus "C."
- 10. Step 10: The generator individual breakers shall open, and the generators shall run for an adjustable cool-down period of 5 to 40 minutes before shutdown.
- c. Automatic Operation When One of the Two Utility Sources Fails:
 - I. When one of the two utility sources fails, open the main breaker of the failed source, and lock this breaker in the open position until such time that the controller calls for closing the breakers. After a preset adjustable time-delay close the two tie breakers. Now the entire pump station is fed from the single available source.
 - II. When voltage returns to normal at the failed source, implement the following sequence to reconnect the failed source to its bus for restoring normal operation:
 - 1. Start. synchronize, and parallel all "available" generators at bus "C." For clarity of sequence description, the following discussion assumes that Source B has failed. Source A failing, the sequence is similar except as noted by the letters or numbers in parentheses.
 - 2. Adjust the load and voltage on the generators such that they supply all loads connected to bus "B" ("A") and then: is no power flow between bus "C" and bus "A" ("B"). At this point open the tie breaker between bus "C" and bus "A" ("B").
 - 3. Now the generators are feeding the load connected to bus "B" ("A"). Synchronize bus "B" ("A") with the Source B (A) and close the Source B (A) main breaker. Adjust the load on the generators so that all load is supplied by Source B (A) and the generators just "float" at no load.
 - 4. Open the tie breaker between bus "B" and bus "C" ("A"). Open the generator breakers and stop the generators after a cool off period of 5 to 40 minutes.

- III. The sequence specified above will allow a "closed transition" return to utility power.
- d. Automatic Operation When Both Sources of Power Fail:
 - I. When both sources of power fail, the system shall implement the following sequences.
 - 1. When both utility sources have failed, a signal is sent to the generator controllers. The controllers are expected to be running on UPS. The controllers transmit generator start sequences.
 - 2. The generator control system shall initiate the startup sequence. The first step shall be similar to Step 1, as described in Paragraph 1.b. Should the utility power return while the PLC is going through Step 1, then shut down the started generators following a cooling off period, adjustable from 5 to 40 minutes. Should only a single source return to power during this sequence, then go through generator shutdown and implement the sequence described in Paragraph 2. If the power failure of both sources still persists, implement the following steps.
 - 3. Open the two utility main breakers (Source A and Source B) and keep these breakers locked for the duration of generator operation until such time that the control system calls each breaker to close again. Close the two tie breakers providing emergency power to both buses "A" and "B." Provide adjustable time delays for the closing of the tie breakers.
 - 4. When normal voltage returns to both utility sources, implement the "closed transition return to utility" sequence as specified in Paragraph 1.a, steps 8, 9, and 10.
 - 5. When normal voltage returns only to one of the two sources, synchronize the generator bus "C" with one of the two source buses that have normal voltage and close the appropriate source breaker (A or B, but not both). Now the generators are running in parallel with Source A (or B). Transfer all the generator loads to Source A (or B). Open all generator breakers, one by one, and stop all generators following an adjustable cool down period of 5 to 40 minutes. Now Source A (B) is feeding the entire pump station.
 - 6. When Source B (A) returns with normal voltage, implement 1 through 4 of Paragraph 2.b for closed transition return to normal power.
- e. System Test Buttons:
 - I. Two test buttons are available on the OIT for testing purposes. A "FULL SYSTEM TEST" and a "TEST GENERATORS OFFLINE" buttons are available for testing and exercising the system.
 - II. Pressing the TEST GENERATORS OFFLINE button shall permit the following operations:
 - 1. When the pump station operator enters a TEST GENERATORS OFFLINE start signal from the OIT. Implement steps as specified in Paragraph 1.c and Paragraph 2.b.1.
 - 2. At this point a predetermined number of generators shall be running in parallel at no load at bus "C". Both tie breakers shall be open.
 - 3. Close the LOAD BANK RUN output contact to close the load bank breaker and start the load bank.
 - 4. When the operator enters an end TEST GENERATORS OFFLINE test signal through the OIT, open the load bank run contact to open the load bank breaker and turn off the load bank.
 - 5. The generator breakers shall then open and initiate a shutdown following an adjustable cool-down period.

- III. Pressing the FULL SYSTEM TEST button shall permit the following operations:
 - 1. When the pump station operator enters a start FULL SYSTEM TEST signal at the OIT, implement steps as specified in Paragraph 1.c.1.
 - 2. Simulate a power failure of both utility sources. Implement the sequence specified in Paragraph 3.a.1 through 3.a.3
 - 3. When the operator enters an end FULL SYSTEM TEST signal through the OIT panel, remove the simulated power failure of both utility sources. Implement the sequence specified in Paragraph 3.a.4 for a closed transition transfer of BUS A and BUS B to the utility sources.

2.5.5 Quality Assurance and Supplemental Provisions

- 2.5.5.1 The Contractor shall have responsibility of providing a fully functional emergency genset and switchgear control system that meets or exceeds all function requirements listed in this specification. Any and all additional components, instruments, sensors, electronic engine controllers, voltage regulators, shall be included in this scope of work in order to provide a fully operation and integrated system.
- 2.5.5.2 The Contractor shall develop the design and produce drawings in CAD for submission and acceptance prior to commencement of system replacement work. Drawings shall include electrical, instrumentation, panel layout, data network, and any other pertinent supporting drawings and documents for the control system. All documents shall be submitted to the owner in AutoCAD, PDF, and printed formats.
- 2.5.5.3 A Factory Acceptance Test (FAT) shall be performed and successfully completed prior to shipment and commencement of the any on site work. All new system components shall be tested at the factory to the extent that is possible at a factory without the presence of the actual generators and switchgear. Any signals and inputs/outputs that can be simulated, shall be done to fully test operability. Low Voltage power shall be connected to the hardware to monitor the voltage when and where it is appropriate and safe to do so.
- 2.5.5.4 The contractor shall be responsible for project planning, routine communications, and shall assist the owner with managing the efforts of the project.
- 2.5.5.5 The contractor shall be responsible for project scheduling, review and analyze the schedule and project requirements to develop a comprehensive project plan. The project plan sets forth the tasks required, assigning responsibility, setting elapsed time targets, and milestones.
- 2.5.5.6 The contractor shall demonstrate the functionality of the completed installation to the owner as part of a Site Acceptance Test. (SAT) This demonstration shall include all possible scenarios and control sequences of the control system. The contractor shall develop the SAT test plan for submission to the owner and approval.
- 2.5.5.7 The contractor shall update all documentation and drawings for the project to AS-BUILT prior to completion of the project. All drawings and documents shall represent the final and finished work of the project. All documents and drawings shall be submitted to the owner in AutoCAD, PDF and printed formats. All documentation and drawings shall become the property of the owner with no restrictions of use.

- 2.5.5.8 The contractor shall replace the control panel doors, or submit a plan to reskin or blank off holes left by removal of existing devices. The owner assumes the right to approve or deny the submitted cabinet repair plan.
- 2.5.5.9 The contractor shall provide all configuration hardware and software and spare parts in order to restore any failed component that was provided in this contract. The contractor shall develop a list of recommended spare parts ahead of completion of the project. The deliverable parts shall include the following and any additional recommendations:
 - a. Switchgear Breaker Controller pre-configured and ready to replace a failed unit.
 - b. Generator Paralleling Controller pre-configured and ready to replace a failed unit.
 - c. Software and configuration files for all newly installed configurable devices. Configuration files, programming and software shall become the property of the owner. Proprietary software, configuration or code are not permitted on any device and shall not be accepted by the owner.
 - d. Any and all specialized hardware and cables necessary for configuration.
 - e. Documentation for all settings and configurable devices as configured at completion of the SAT.
 - f. All consumable parts such as fuses, power supplies, relays, circuit breakers, and any other recommended component. A minimum of 1 or 10% of installed consumable components shall be provided.

Any exceptions to the above specifications must be noted in Bids proposal.

2.6 Installation and Schedule

Contractor shall phase work so that half of the electrical gear shall be available at all times.

Owner shall have control of the schedule due to the weather or operational circumstances.

There shall be no cutting, grinding, or welding permitted within the load center. These activities will need to be performed outside.

Outages must be coordinated with the owner with at least seven (7) day approved notice by Owner. These pre-approved outages include, but may not be limited to, 8 hour intervals for half of the gear and 4 hour intervals for full gear shutdown

Contractor shall provide full system testing

Contractor shall provide one full day of field training for UOSA staff (4 hours for operator staff and 4 hours for technical staff)

2.7 Equipment Testing and Facility Startup

Contractor shall perform interface testing between OIT and controllers in a controlled environment before installation in addition to all factory, witness and start up testing. The contractor shall submit a copy of these results to the owner.

Contractor shall field test all modes of operation found in section 2.5.4.1.

Contractor shall field test a manual transfer of load to a single generator. Contractor shall manually lock out the main utility breakers and manual close the tie breakers and a single generator breaker to power the pump station with a single generator.

2.8 Manufacturers Field Services

Contractor shall provide 48-hour notice of request to start up equipment. Contractor shall perform factory start up and performance testing of all load ranges

2.9 Contractor's Responsibilities

- A. The Contractor's personnel on site shall have all training, certificates and experience necessary to perform the work specified in this solicitation.
- B. The Contractor warrants that all workmanship shall be of the highest quality and in accordance with contract documents and manufacturer(s) specifications and shall be performed by persons qualified at their respective trades. All services shall be performed in the highest professional manner, and in accordance with all applicable and current industry standards, regulations, codes and statutes. Unless the means or methods of performing a task are specified, Contractor shall employ methods that are generally accepted and used by the industry.
- C. It is the responsibility of the Contractor to fully test any installation or re-installation of equipment (new or repaired) and obtain sign off from UOSA Project Manager before it is placed into or back into service.
- D. The Contractor shall at all times keep the premises and adjacent areas free from accumulations of waste material or rubbish. The Contractor shall secure the premises as needed. At completion of the work, the Contractor shall remove from and about the premises and adjacent areas, all rubbish, tools used for work and surplus materials, and shall leave the area "Broom Clean" and ready for use.
- E. The Contractor is expected to have as part of his inventory and everyday work environment the necessary repair equipment, testing devices, parts and tools needed to perform the work. The Contractor shall be able to provide all necessary labor, materials, tools, equipment, appliances, parts, appurtenances, and transportation. UOSA shall not be responsible for supplying any of the equipment, testing devices, appliances, etc. necessary to perform the Work specified in this solicitation.
- F. Where the Contractor's Work may cause damage or disrupt existing UOSA property including but not limited to utilities, plant equipment, instrumentation and control systems, the Contractor shall make arrangements necessary for the protection of such property. The Contractor, at its sole expense, shall immediately replace UOSA property removed or damaged by, or at the direction of, the Contractor or any subcontractor to the Contractor. Replacements will be new and current technology unless otherwise provided for in these specifications or authorized by UOSA.
- G. Contractor shall return all work areas to the same or better condition than prior to start of Work. Contractor must notify UOSA of any area, piece of equipment, etc., that is damaged or not in the same or better condition than prior to start of Work. The Contractor will be responsible for repair, replacement, etc., of any such property, which is within the

Contractor's area of responsibility and is found to be in need of repair/service by the UOSA Project Manager. Acceptance shall not occur until all such damages are either repaired or replaced or for which UOSA is reimbursed a fair and reasonable sum as negotiated and agreed to in writing, by UOSA.

2.10 Prior Project Listing

Bidder shall submit with their Bid, a listing of at least three (3) similar installations of control systems for dual paralleling units that includes the name, address, telephone number and point-of-contact within the preceding 5 years.

Additionally, please provide your service history in terms of how many years your firm has been installing similar generator control systems.

References may be checked prior to Award. UOSA reserves the right to obtain additional references, either directly through the Bidder or other legitimate sources.

UOSA reserves the unilateral right to reject any Bid for which an unacceptable reference is identified.

2.11 Qualifications of Bidders

All Bidders on this project shall prove their ability to perform the services mentioned in order to be considered responsive and responsible prior to any award. Bidders' responsiveness and responsibility will be evaluated based on information provided as a response to this solicitation. UOSA reserves the right to require clarifications and include information provided by the submitted references. The following information and documentation will be reviewed to determine the responsiveness and responsibility of each Bidder prior to any determination of a responsive, responsible low Bidder:

- 1. Solicitation Response Form and all other required forms as noted throughout this Solicitation.
- 2. Completed Bidder's Qualifications form (Attachment B) which includes:
 - i. Bidder's geographical proximity to the Cub Run Pump Station (including any service centers, warehouses or service technicians).
 - ii. Bidder's ability to respond to any emergency repair call on site within two 2 hours
 - iii. Bidder's ability to respond to any normal repair call within eight (8) hours
 - iv. Bidder's ability to provide and maintain inventory of critical equipment to ensure timely response to any normal or emergency repair calls.
 - v. List of any subcontractors to be used in performance of the Work.
- 3. Prior Project Listing (Attachment C)
- 4. List of critical components including lead time and location of those components for a period five (5) years after installation and final testing. This list should include any recommended spare parts for UOSA to maintain on hand.
- 5. Schedule from Award to final testing for Phase 1 of the project for the Generator Control Set; Due to funding concerns it is critical that Phase 1 be completed before June 30, 2024 and Bidders schedule should reflect that end date.
- 6. Contractor's Safety Plan
- 7. Warranty
- 8. Valid Contractor's License for Virginia and Business License for Fairfax County,

VA

9. Completed Bid Form

2.12 Use of Subcontractors

Bidders shall indicate which of the tasks listed above would be performed by "in house" personnel or by subcontractors. It is the preference of UOSA for Contractors to use in house workers and staff to perform the Work requested.

2.13 Additional Services

UOSA may include in the resulting contract awarded for this solicitation provisions for additional related future work. The additional work is optional and shall be quoted separately on a time and material basis based on the rates provided on the Bid Summary Form.

End Section 2

ATTACHMENT A – UOSA STANDARD TERMS AND CONDITIONS

[Small project-Construction]

The following Terms and Conditions establish requirements and conditions governing responsibility, policy, and procedures und 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 Bidder:** The individual or business entity who or which submits a Bid to the IFB.
- 1.1 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.

1.2 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 Substantial Completion and Final Completion 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. An example of the executed Contract is provided as Attachment D. 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.
- 1.3 Contract Documents: The Contract Documents consist of the Invitation for Bid ("IFB"), a signed copy of the Bid Form the Specifications, Drawings, the signed Contract, the Payment Bond, the Performance Bond, 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.
- 1.4 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, by the person designated in writing by the Executive Director to make changes to the Contract.
- 1.5 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.
- **1.6 Contract Time:** The time within which the Contractor is required to achieve Completion, and thereafter to achieve Final Completion, of the Work. The Contract Time is of the essence of the Contract.
- 1.7 Contractor: The person or persons, partnership, firm, join venture, or corporation submitting a Bid for the Work contemplated.

1.8 Final Completion:

- A. "Final Completion," or the state of being "Finally Complete," shall mean total completion of all Work, or a defined portion thereof, required by or reasonably contemplated by the Contract Documents. "Final Completion" or the state of being "Finally Complete" shall include all applicable changes set forth in Supplemental Agreements.
- B. As used herein the term "or a defined portion thereof" shall be such portion of the Work as may be designated by the Owner in its sole discretion and shall not affect the determination of Final Completion of the Work as a whole which is understood to be indivisible.
- 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

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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. In the IFB email may be used for any Notice required by the Contract Documents except for any issues relating to a claim (for additional Contract Time or an increase in the Contract Price) or disputes. Unless otherwise stated within one of the following, the execution of a Task Order, Contract, or the issuance of a Purchase Order shall operate as a Notice to Proceed for the Work included in that document.

1.11 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.
- **1.12 Project:** The term "Project" shall be synonymous with the term "the Work.
- 1.13 **Project Schedule:** At any time during the performance of the Contract, reference to the Project Schedule shall mean the construction schedule most recently accepted pursuant to the provisions of the Specifications. The requirements for a Project Schedule shall be set forth in the IFB.

1.14 Specifications:

- A. The term "Specifications" refers to those portions of the Contract Documents, which consist of written technical descriptions of materials, Equipment, construction systems, standards, and workmanship to be applied to the Work and certain administrative details applicable thereto. The Specifications are written in imperative and streamlined form. This imperative language is directed to the Contractor unless specifically noted otherwise. The words "shall be" or "shall meet the requirements of" shall be included by inference where a colon is used within sentences or phrases.
- B. The standard specifications, abbreviations and acronyms applicable to the Work are listed in the Specifications. Where reference is made to standard specifications, the applicable portions of such standard specifications shall be construed to have been incorporated by reference and to be a part of the Contract Documents in which they are referenced. Provided, however, if such referenced standard specifications conflict with requirements or details specifically set forth otherwise in the Contract Documents, precedence shall be given to such requirements or details otherwise set forth in the Contract Documents.
- C. The Specifications shall be identified in the IFB.
- 1.15 Subcontractor: Any party, entity, or enterprise of any sort other than the Contract providing labor or services to the Project pursuant to any agreement or arrangement with the Contractor.

1.16 Substantial completion, Substantially Complete. Partial Utilization:

A. "Substantial Completion" or the state of being "Substantially Complete" shall be that degree of completion of the Work, or of a defined portion of the Work, as evidenced by the Owner's written Notice of Substantial Completion, which is sufficient to provide the Owner, in its sole discretion, with the full-time use of the Project, or defined portion of the Project, in all manners or modes of operation and for the purpose or purposes for which it was intended, subject, however, to the further requirements set forth herein or otherwise in the Contract Documents. "Substantial Completion" or the state of being "Substantially Complete" of an operating facility or system shall be that degree of completion which is sufficient to have provided a minimum of seven (7) continuous days of successful, trouble-free operation in the manner that was intended, which period shall be deemed to begin only after all functional, performance, and acceptance tests have been successfully demonstrated to the satisfaction of UOSA and Owner. Compliance with all applicable permits and inspection requirements for the Work shall be a condition precedent to achieving Substantial Completion but shall be in addition to and not in lieu of all other requirements for Substantial Completion. All Work necessary to enable the Owner to operate the facility in the manner intended shall have been installed complete by the Substantial Completion Date. The specific tasks required to accomplish Substantial Completion of any defined portion of the Work may be set forth in more particular detail in the Specifications and to the extent so set forth are incorporated herein.

- B. 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 Substantial Completion 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 Substantial Completion or Final Completion 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 Substantial Completion of the Work.
- 1.17 Supplemental Agreements: Written agreements covering alterations, amendments, or extensions to the Contract and include Change Orders and Unilateral Change Orders.

1.18 Surety:

Whenever the term "Surety" is used herein it shall refer to the party providing any bond required under the Contract Documents. A Surety providing any such bond shall have a sound financial standing and a record of service satisfactory to the Owner, and shall be authorized to do business in the Commonwealth of Virginia. Sureties executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended). The attorney-in-fact who executes any bond on behalf of the Surety, must attach a notarized copy of the Power of Attorney in compliance with all applicable Virginia law as evidence of his authority to bind the Surety on the date of execution of the bond. The term "Surety" shall include any form of Bid Security deposited in the form of cash or certified check.

- 1.19 UOSA: Upper Occoquan Service Authority, interchangeable with "Owner."
- 1.20 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 in response to this IFB, the Bidder 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. Bidder 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, Bidder represents that such bid is submitted without prior understanding, agreement, or connection with any corporation, partnership, firm, or person submitting a bid 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 Bidder/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;

The Contractor shall keep itself fully informed of all such local, state and federal ordinances, laws, codes, regulations, governmental requirements, and all permits required of either the Owner or the Contractor, and shall at all times comply therewith and shall protect and indemnify the Owner, the Engineer, and their respective employees, officers and agents against any claim or liability arising from, or based upon, the violation thereof caused by the Contractor or by any party performing any part of the Work for, or for the benefit of, the Contractor.

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 Bidder shall include in its bid 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.

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- 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, Bidder certifies that it is not currently debarred by the Commonwealth of Virginia (or any other Virginia public body) from submitting Bids 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:** Bids 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 bids shall be automatically extended for another 90 days. Bids will be automatically renewed until such time as either an award is made or proper notice is given to UOSA of Bidder's intent to withdraw its bid. Bids 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, Bidders 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: This section only applies to Projects with federal funding.** The Bidder 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 this Contract. 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.

2.12 Materials and Equipment:

A. Unless otherwise provided by the Contract Documents, the Contractor shall provide and pay for all materials, labor, water, tools, Equipment, heat, light, fuel, power, transportation, construction equipment and machinery, appliances, telephone, sanitary facilities, temporary facilities and other facilities and incidentals necessary for the execution and completion of the Work. This shall include all costs associated with operation and maintenance of Equipment and facilities including weekly janitorial service to clean such facilities prior to their being accepted as Substantially Complete.

- B. Unless otherwise specified by the Contract Documents, all materials and Equipment shall be new, and all workmanship, materials, and Equipment shall be of the highest quality. The Contractor shall, if required, furnish evidence satisfactory to UOSA as to both the kind and quality of all such materials and Equipment.
- C. In selecting and/or approving Equipment provided by the Contractor for installation in the Project, the Owner assumes no responsibility for injury or claims resulting from failure of the Equipment as manufactured or installed to comply with applicable federal, state, or local safety codes or requirements, or with the requirements or standards of a recognized regulatory agency or body, or failure due to faulty Equipment design concepts, or defective workmanship or materials.
- D. Standardization and Uniformity of Equipment and Certain Materials:
 - To ensure standardization and uniformity in all parts of the Work under the Contract, like items of Equipment provided by the Contractor shall be the products of one Manufacturer. Like items of materials provided by the Contractor shall be the products of one Manufacturer unless otherwise specified.
 - Uniformity in like Equipment items is required to provide the Owner with interchangeability capabilities, simplified spare parts inventory, and standardized maintenance programs and Manufacturers' services.
 - 3. Uniformity in like material items is required to provide the Owner with a simplified spare materials inventory; continuity in patterns, color, and texture; and a standardized procedure for maintenance, care and Manufacturers' services.
 - 4. Visible architectural items such as but not limited to exterior finishes, roofing materials, floor and wall covering, ceiling materials, doors, windows, cabinetwork, paint, and miscellaneous appurtenances, when specified alike shall be standardized.
 - 5. Generally, material items exempt from standardization include structural steel, reinforcing steel, building insulation, sheet metal, materials specified only by reference to a recognized standard, and items similarly hidden from view and not subject to ready replacement where interchangeability, color, and texture are not significant factors for standardization.
 - The Contractor shall inform all Subcontractors of these requirements and shall provide the necessary coordination to accomplish the standardization specified.

2.13 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.
- C. The Contractor shall meet or exceed all requirements of any special inspections program of any Government Agency applicable to any portion of the Work in effect on the date of execution of the Contract, the Government Agencies' Special Inspections Manual, as amended for the Work, in addition to other local, state and federal building codes. Violations, defects, or deficiencies noted as a result of this program resulting from acts or omissions of the Contractor shall be grounds for withholding partial and/or final payments to the Contractor until such time as they are corrected or resolved.

2.14 Protection of Work and Property:

- A. The Contractor shall at all times safely guard and protect the Owner's property, adjacent property, and its own Work from damage, injury or loss in connection with the performance of the Contract. The Contractor acknowledges the requirements of the Specifications regarding the importance of maintaining uninterrupted operation of the Owner's existing facilities. All measures, equipment, and facilities required for the provision of such protection by federal, state, or municipal laws and regulations and local conditions must be established, provided and maintained.
- B. The Contractor shall protect the Work and materials from damage due to the nature of the Work, the elements, carelessness of other contractors, or from any cause whatsoever until Final Completion and acceptance by the Owner of the Work. Provided, however, the Contractor shall not be responsible for damage to the Work caused by the Owner's use thereof after Substantial Completion.
- C. Before commencing any Work, the Contractor shall identify the locations of all subsurface utilities. The Contractor shall field verify the nature, conditions, location, shape, configuration, dimensions, materials, or other properties of all buried utilities and facilities, whether shown in the Contract Documents or not, prior to proceeding with the subsurface Work. The Contractor shall protect all existing utilities and facilities at all times unless otherwise shown in the Contract Documents. In the event of the failure of the Contractor to comply with the requirements of this Article, or promptly to effect repair of any damage or injury to the Owner's property, adjacent property or the Contractor's own property, the right is reserved to the Owner, but the Owner shall not be required, to provide such protection and to effect such repairs. Should the Owner take actions as provided by this Article, the Contractor shall reimburse the Owner for all costs incurred by the Owner, including but not limited to labor, materials, equipment, fines, charges, penalties, and legal actions plus an administrative fee of fifteen percent (15%) of all such costs. The Owner is authorized to deduct such costs from any amount due, or that may become due, the Contractor.

2.15 Assumption of Risk for Unforeseen Conditions:

A. Execution of the Contract by the Contractor is an acknowledgement by the Contractor that it has exercised due diligence in the investigation of the Site and of all Equipment, Structures and improvements thereon as provided in the Instructions to Bidders. The Contractor shall have no claim for any adjustment of any sort to the Contract Price or the Contract Time arising from or related to any conditions at the Site and all Equipment, Structures and improvements thereon or other information provided by the Owner that should have been discovered by such investigation.

B. If the Contractor in the performance of the Work encounters physical conditions at the Site which differ materially from those indicated in the Contract Documents and which should not have been discovered previously in the exercise of due diligence, the Contractor promptly, and before the conditions are disturbed, shall give written Notice thereof to the Owner and shall not disturb the conditions until the Owner has inspected the same and the Owner has issued written instructions to proceed. Any request for an adjustment to the Contract Time or the Contract Price thereafter shall be subject to and governed by the provisions of the Terms and Conditions and Sections 3.0, 3.3 and 3.4 herein and the Specifications. Compliance with the Notice provisions is a condition precedent to any claim for adjustment of either the Contract Time or of the Contract Price due to such conditions. Failure to strictly comply with the condition precedent shall be an absolute bar to any claim for adjustment of either the Contract Time or the Contract Price.

2.16 Safety Program and Contractor's Compliance:

- 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);
 - 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.
- E. The Owner is not responsible for or has the authority for entering the Contractor's safety path.

2.17 Submittals:

- A. All required submittals shall be set forth in the IFB.
- B. After checking and verifying all field measurements and after complying with applicable procedures specified in the Specifications, the Contractor shall submit to the Owner for review in accordance with the Schedule of Submittals its Shop Drawings, electrical diagrams, and catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment), which shall bear a stamp or specific written indication that the Contractor has satisfied the Contractor's responsibilities under the Contract Documents with respect to the review of the Submittal. All Submittals shall be in the format as specified in Specifications, unless otherwise directed by the Owner. The data shown shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to enable UOSA to review the information.
- C. Before submission of each Submittal, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and have reviewed and coordinated each Submittal with other Submittals and with all the requirements of the Work and the Contract Documents.
- D. At the time of each submission, the Contractor shall give the Owner specific written Notice of each variation that the Submittal may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation of each such variation to be made on each Shop Drawing submitted to the Owner for review and approval.
- E. The Owner shall review Submittals in a timely manner, but the Owner's review will be only for conformance with the intent of and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions. The Contractor shall make corrections required by the Owner, and shall return specified number of corrected copies of Submittals, including one reproducible copy, and submit as required new samples for review. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Owner on previous Submittals. Should the Contractor fail to submit fully acceptable and correct Shop Drawings and Submittals on the second Submittal, one copy will be returned to the Contractor and the Contractor will be charged three hundred dollars and zero cents (\$300.00) for reviewing each subsequent Submittal.
- F. The Owner's review of Shop Drawings and Submittals shall not relieve the Contractor of its responsibility for any variation from the requirements of the Contract Documents unless the Contractor has called the Owner's attention to each such variation in writing at the time of submission and the Owner has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing, Submittal or sample approval; nor will any approval by the Owner relieve the Contractor of its responsibility for errors or omissions in the Submittals or Schedule of Submittals, for having complied with the provisions herein, nor otherwise for compliance with the requirements of the Contract Documents.

- G. Where a Shop Drawing, sample or Submittal of any kind is required by the Specifications, any related Work performed prior to Owner's review and approval of the pertinent submission shall be at the risk of the Contractor.
- H. Where catalog cuts contain information on more than one model, the specific model to be supplied and all pertinent information shall be clearly identified by highlighting or other easily discernible method.

2.18 Superintendence by Contractor:

- 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(s) UOSA deems to be a threat to the safety of and/or security of 1) the UOSA premise; 2) UOSA personnel; or 3) the operations of the UOSA plant. UOSA may, in writing, request 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.
- 2.19 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. <u>Detection of Drugs or Alcohol:</u>

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.

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

<u>Purpose</u>

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 2nd 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.

2.21 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 by the person designated in writing by the Executive Director to make changes to the Contract..

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. The Owner may order minor changes in the Work, which the Contractor and the Owner agree do not involve extra cost or additional time by the use of a Field Order. The purpose of such Field Order is to document the scope of the change and to provide the authorization and direction for the Contractor to make such change(s).

3.1 Discrepancies, Omissions, Inconsistencies and Clarifications:

Any discrepancies, omissions, or inconsistencies found in the Contract Documents by the Contractor, or any provisions of the Contract Documents upon which the Contractor requires information, shall be reported to the Owner immediately by submitting in writing a Request for Information (RFI). The Owner will address any such RFI and provide information, in writing, within 30 days or receipt of the RFI. If the Contractor proceeds with any portion of the Work which may be affected by the questions raised in the RFI prior to obtaining such information from the Owner, the Contract does so at its own risk. The Contractor shall proceed with other portions of the Work not affected by the questions raised in the RFI. If the Contractor fails to discover such a discrepancy, omission or inconsistency which, in the exercise of reasonable care and diligence it should have discovered, the Contractor shall be solely responsible for all costs and delays arising therefrom or related thereto.

The Contractor agrees that, in the event of any ambiguity or conflict in the Contract Documents, the language in the Contract Documents shall not be construed against the Owner.

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

- Signed Contract
- 2. Supplemental Agreements, with the most recent having precedence
- 3. Task Orders or Purchase Orders
- 4. The Terms and Conditions
- 5. Signed Bid Form
- 6. The IFB and any Addenda to the IFB
- 7. Specifications
- 8. Drawings

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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 a Bid in response to this solicitation, the Bidder agrees to all Terms and Conditions and to the Specifications contained in the IFB.

- **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. Unless otherwise stated in the Specifications, The Contractor shall be entitled to an extension of time for delay caused by any act or any neglect of the Owner, 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 Final Completion 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

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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 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 the 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	\$1,000,000
(Other than Products-Completed Operations)	
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. Proof 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.
 - 2. The Contractor shall provide an additional insured endorsement attached to the Contractor's policy. UOSA is no longer able to accept only a certificate of insurance with a notation of UOSA as additional insured. However, your contractual obligation remains to maintain UOSA as an additional insured on your policy. Therefore, if you have not done so in the past, you will need contact your insurer to add this required endorsement to your policy adding UOSA as additional insured and provide both the certificate and the endorsement to UOSA as proof of insurance.

G. Builders Risk Insurance:

- 1. The Contractor shall secure and maintain throughout the Contract Time Builders Risk Insurance coverage for one hundred percent (100%) of the Contract Price. Such insurance shall be issued on an All Risk form, subject to exclusions, and shall not exclude coverage for earthquake, landslide, flood, collapse, or loss due to the results of faulty workmanship. Such Builders Risk Insurance shall cover the insurable interests of the Owner, Contractor, Subcontractor, suppliers of any portion of the Work, and any bondholders and shall contain a Waiver of Subrogation clause as to all such entities as part of the form or by separate endorsement. Proceeds of any claim shall be payable to the Owner to be applied toward repair or replacement of the damaged Work.
- 2. To the extent permitted by law and only to the extent covered by Builders Risk Insurance which meets or exceeds the coverage requirements of the preceding subparagraph 3.7.G.1, Contractor hereby agrees to waive any rights Contractor may have against the Owner, Subcontractor(s), suppliers of any portion of the Work, and any bondholders, for any damage to the Work, even if caused by the negligence of the Owner, Subcontractor(s), suppliers of any portion of the Work, or any bondholders.
- 3. The Contractor shall include in the Contract Price the costs of such Builders Risk Insurance and shall disclose such cost to the Owner promptly after award of the Contract. If the Owner can provide such Builders Risk Insurance at a price less than that available to the Contractor, the Owner reserves the right to provide such insurance and to issue a deductive Change Order for the cost of such insurance included by the Contractor in the Contract Price.

H. Subcontractor Insurance:

- The Contractor shall require all Subcontractors to provide the same insurance coverage as that required of the Contractor as set forth in the Contract Documents. The following exceptions will be permitted with respect to the insurance requirements pertaining to any Subcontractor's insurance:
 - Workers' Compensation policy for the Commonwealth of Virginia shall be acceptable without the Waiver of Subrogation requirement.
 - b. The Notice of cancellation requirements may be amended to read thirty (30) days in lieu of sixty (60) days.
 - c. The Umbrella Insurance requirement will be acceptable at a minimum limit of \$1,000,000.00.
 - d. There is no requirement for the Subcontractor to provide Builders Risk Insurance separate from that obtained by the Contractor or Owner.
- A Certificate of Insurance indicating compliance with the provisions herein shall be provided to the Owner and the Contractor prior to the commencement of any Work by any Subcontractor.
- 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 Substantial Completion or Final Completion 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 equal to one hundred twenty dollars and zero cents (\$120.00) per day unless otherwise stated 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 Non-Conforming or Defective Work:

- A. Any Work deemed by the Owner at any time during performance of the Work or prior to expiration of the Warranty Period to be defective shall be corrected or removed and replaced by Work which shall conform to the intent and requirements of the Contract Documents. Any Work condemned or rejected shall be corrected or removed at once. All such correction or removal and replacement shall be at the Contractor's expense, and shall not be the basis, in whole or in part, for any adjustment of the Contract Time or the Contract Price.
- B. No failure on the part of either the Owner during the performance of the Work to condemn or reject Work which does not comply with the intent and requirements of the Contract Documents or to reject nonconforming Work contained in Contractor submittals shall be construed to imply acceptance thereof.
- 3.11 Ownership of the Work: Upon Final Completion, 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.
- 3.12 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.

3.13 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.

3.14 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:

- 1. Stop Work;
- 2. 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;
- 4. Assign to Owner all Subcontracts as designated by Owner to be assigned and terminate all other subcontracts; and
- 5. 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.

- **3.15 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.
- 3.16 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.
- **3.17 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

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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 Final Completion of the Work and shall continue for a period of one (1) year thereafter.

All warranties set forth in the IFB 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 Completion, 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, 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.

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 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:** Invoices: Invoices for completed Work shall be submitted by the Contractor directly to the payment address shown on the Purchase Order or 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.

4.2 Partial Payments:

A. GENERAL

- 1. Except as provided below for bonds and insurance, acceptance by the Owner of the Schedule shall be a condition precedent to the obligation of the Owner to make any partial payment to the Contractor. Partial payments for bonds and insurance shall be substantiated by such supporting documentation as may be required by the Owner. Acceptance of the Project Schedule thereafter, as and when required by the Specifications, shall be a condition precedent to the obligation of the Owner to consider any subsequent Application for Payment submitted by the Contractor.
- 2. Nothing contained in this Article shall be construed to affect the right, hereby reserved to the Owner, to reject the whole or any part of the Work, should such Work be later found not to comply with the Contract Documents. All estimated quantities of Work for which partial payments have been made are subject to review and correction on subsequent estimates. Payment by the Owner and acceptance by the Contractor of partial payments based on periodic estimates of quantities of Work performed shall not, in any way, constitute acceptance of the estimated quantities used as the basis for computing the amounts of the partial payments. Such estimates of quantities of Work performed shall be determined in accordance with the Project Schedule.

B. APPLICATION FOR PAYMENT

- The Contractor is required to submit its Application for Payment by the 15th of each month. Each Application for Payment shall be accompanied by the photographic records as required by the Specifications and by a release of liens and claims in compliance with Section 4.4.
- 2. The Owner will, within ten (10) days after receipt of each Application for Payment, either indicate in writing an intent to pay the Application for Payment, or return the Application for Payment to the Contractor indicating in writing the Owner's reasons for refusing to recommend partial payment. In the latter case, the Contractor shall, within seven (7) days, make the necessary corrections and resubmit the Application for Payment.
- 3. The Owner may refuse to pay any part of any partial payment if it would be incorrect to make such payment. The Owner may also refuse to pay any such partial payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such partial payment previously recommended to such extent as may be necessary to protect the Owner from loss because:
 - a. any part or portion of the Work is defective;
 - b. completed Work has been damaged, requiring correction or replacement;
 - c. written claims have been made against the Owner or liens have been filed in connection with the Work;
 - d. the Contract Price has been reduced because of Change Orders;
 - e. the Owner has been required to correct defective Work or complete the Work in accordance with Section 3.2. Defaults;
 - f. of the Contractor's unsatisfactory prosecution of the Work in accordance with the Contract Documents; or
 - g. of the Contractor's failure to make partial payment to Subcontractors or for labor, equipment and materials, or Equipment, or as otherwise represented to the Owner.
- 4. The Owner reserves the right to withhold partial payments or a portion thereof if, in the opinion of the Owner, the Work is not proceeding according to the requirements of the Contract Documents or as the Contract Documents otherwise authorize the Owner to withhold or suspend payments.

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.

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4.4 Release of Liens and Claims: 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 (if applicable)

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:

- B. Deliveries against this order must be free of excise or transportation taxes.
- C. 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.
 - 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 <u>no</u> 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
- **Governing Law:** Notwithstanding Bidder'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, 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.

ATTACHMENT B – BIDDERS QUALIFICATIONS

General Qualifications –

1.	How many y	years' exper	rience in the propose	sed type of Work has your organization had?	
	\square < 5 years	S	☐ 5-15 years	\square 15-30 years $\square > 30$ years	
2.	,	_	•	s, directors, or owners had judgment entered against them within the governmental or non-governmental construction?	ne
	Yes	□No			
	If yes, give	complete ci	rcumstances for eac	ch occurrence on a separate sheet(s) of paper. Attachment No	<u></u> .
3.	•	•		A, project managers, procurement managers, or chief financial office a crime related to governmental or non-governmental construction	
	Yes	□No			
	If yes, give	complete ci	rcumstances for eac	ch occurrence on a separate sheet(s) of paper. Attachment No	·
4.	Has your org	ganization e	ever failed to comple	lete a construction contract with a public body?	
	Yes	□No			
	If yes, give	complete ci	rcumstances for eac	ch occurrence on a separate sheet(s) of paper. Attachment No	<u></u> .
5.	Is your organistate, or feder		•	rs, directors, or owners currently debarred by any municipality, cou	nty,
	Yes	□No			
	If yes, give of	complete ci	rcumstances for eac	ch occurrence on a separate sheet(s) of paper. Attachment No	·
6.	•	-		any litigation of any type on Work for which your organization we, or federal agency?	as
	Yes	□No			
	If yes, give of	complete ci	rcumstances for eac	ch occurrence on a separate sheet(s) of paper. Attachment No	·
Project	Specific Qu	alifications	S -		
7.	Does propos Controls Up		e meet the final testi	ting and delivery date of June 30, 2024 for Phase 1 of the Generator	or
	Yes	□No			
8.	Provide the	approximat	e geographical dista	tance to the Cub Run Pump Station from the following facilities:	
	a. Contra	actor's main	n office:		
	Less	s than 50 m	iles Less than	100 miles More than 100 miles	
	If m	ore than 10	0 miles, please prov	ovide physical address:	
9.	Physical loc	ation of Co	ntractor's office or s	service center who will perform the Work under this Contract:	
	Less	s than 50 m	iles Less than	100 miles More than 100 miles	
	If m	ore than 10	0 miles, please prov	ovide physical address:	

10.	Alternative service centers for support of the hardware or software after installation:
	Less than 50 miles Less than 100 miles More than 100 miles
	If more than 100 miles, please provide physical address:
11.	Main location, service center or warehouse that will maintain critical components or inventory for repair to system after installation:
	Less than 50 miles Less than 100 miles More than 100 miles
	If more than 100 miles, please provide physical address
	Provide list of which critical components or inventory will be maintained that location.
12.	Location of Factory Testing site:
	Less than 50 miles Less than 100 miles More than 100 miles
	If more than 100 miles, please provide physical address
13.	The use of Sub-contractors to fulfill a majority of the Work in this solicitation is prohibited unless authorized in writing, in advance by UOSA. If you intend to use Sub-contractors, provide a list of their names, addresses, contact person and the type service they will provide. Indicate if this supplements in-house resources or is in lieu of in-house resources and the percentage of all such Work performed by the sub-contractor in the course of the performance of this Contract, including support, repairs and maintenance. Attachment No
14.	Can your organization respond to emergency repair requests within 2 hours?
	□Yes □No
15.	Can your organization respond to non-emergency repair requests within 8 hours?
	□Yes □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 B

ATTACHMENT C - PRIOR PROJECT LISTING

(this form may be used or bidder may submit their own form created in identical format to below)

Project 1:	
Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work	
including date of	
Performance:	
1 011011110110	
Project 2:	
Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work	
including date of	
Performance:	
Project 3:	
Company Name:	
Address:	
Contact Person:	
Telephone:	
Fax:	
Email:	
Description of Work	
including date of	
Performance:	

Page 1 of 2 for Prior Project Information – BOTH pages must be provided with your Bid

Provide a general summary of overall service history in terms of how many years your firm has been installing similar generator control systems
Page 2 of 2 for Prior Project Information – BOTH pages must be provided with your Bid
THIS FORM (both pages)- or similar- MUST BE SUBMITTED WITH YOUR BID/PROPOSAL
End Attachment C

ATTACHMENT D – BID SUMMARY SHEET

Section 1 – Control System Components and Installation

Bid Evaluation and Contract Award will be based on the TOTAL LUMP SUM PRICE to provide the materials and perform the work specified in Section. All costs - labor, materials, packaging, shipping, disposal, etc. must be included. Additional charges not included in the price bid will not be considered.

Item	Description of Requirement	Price Each Total Price
1	Phase 1 Generator Control System Upgrade as defined in Section 2.	\$
2	Phase 2 Protective Relay Replacement as defined in Section 2.	\$
3	TOTAL LUMP SUM PRICE	

		1 otal 1 licc	
1	Phase 1 Generator Control System Upgrade as defined in Section 2.	s	
2	Phase 2 Protective Relay Replacement as defined in Section 2.	\$	
3	TOTAL LUMP SUM PRICE		
*Provid	e detailed specifications, cut sheets, engineering	drawings, etc. for all equip	ment being proposed.
Discoun	t Payment Terms if applicable shall be%,	, NetDa	ys
ne rates provi . Labor R		for award.	
	the following titles/labor rates** for the se		
<u>Title</u>	Hourly Rate**	Overtime Multiplier	Holiday Multiplier
	\$		
	<u> </u>		
	\$		
	\$		
** Rates m	nust include overhead, profit, travel fees ar		
). Material			

Provide markup/discount rate for purchased materials: discount/markup (circle one) %

THIS FORM MUST BE SUBMITTED WITH YOUR BID/PROPOSAL **End Attachment D**