

Request for Proposals

On-Site Sodium Hypochlorite Generation System

DPW Project No. 20401

Prepared by:

City of Unalaska Department of Public Works

PO Box 610 Unalaska, Alaska 99685

April 16, 2021

TABLE OF CONTENTS

1.0	INTRODUCTION	1.1
1.1	BACKGROUND	1.1
2.0	SELECTION PROCESS	2.3
2.1	EVALUATION AND AWARD PROCESS	2.3
2.2	CONDITIONS	2.4
2.3	TRANSMITTAL REQUIREMENTS	2.4
2.4	DOCUMENT REQUIREMENTS	2.5
3.0	EVALUATION FACTORS	3.6
3.1	EVALUATION CRITERIA	3.6
4.0	SCOPE OF WORK	4.9
4.1	OVERVIEW	4.9
4.2	SODIUM HYPOCHLORITE GENERATION EQUIPMENT	4.10
4.3	SHOP DRAWINGS AND PRODUCT SUBMITTALS	4.12
4.4	OPERATION AND MAINTEANCE MANUALS	4.13
4.5	START-UP, PERFORMANCE TESTING, AND TRAINING SERVICES	4.14
4.6	MAINTENANCE EQUIPMENT, SPARE PARTS, CONSUMMABLES	4.15
4.7	ADDITIONAL TECHNIAL ADVISORY SITE VISIT	4.15

LIST OF ATTACHMENTS

Attachment A	Procurement Agreement
Attachment B	Evaluation Matrix
Attachment C	Pyramid Water Treatment As-builts
Attachment D	PWTP Chlorine Room – Current Condition Pictures

LIST OF ACRONYMS

CI	Chlorine
COU	City of Unalaska
DPU	Department of Public Utilities
DPW	Department of Public Works
HVAC	Heating, Ventilation and Air Conditioning
IBC	International Building Code
mg/L	milligrams per Liter
MGD	Million Gallons per Day
OSHGS	On-Site Sodium Hypochlorite Generation System
O&M	Operation and Maintenance
ppd	pounds per day
psig	pounds per square inch in gauge
PWTP	Pyramid Water Treatment Plant
RFP	Request for Proposals

1.0 INTRODUCTION

This is a Request for Proposals (RFP) by the City of Unalaska Department of Public Works for an **On-Site Sodium Hypochlorite Generation System**. All questions about this RFP must be directed to the City Engineer <u>only</u>.

City of Unalaska - Department of Public Works Bob Cummings, City Engineer <u>bcummings@ci.unalaska.ak.us</u> P.O. Box 610 Unalaska, AK 99685 Phone 907-581-1260

Interpretations or clarifications considered necessary by the City of Unalaska in response to such questions will be issued by Addenda. Addenda will be emailed to all registered potential respondents and also posted on the City of Unalaska website:

http://www.ci.unalaska.ak.us/rfps.

1.1 BACKGROUND

The City of Unalaska Department of Public Utilities is planning to transition from chlorine gas to a dilute liquid sodium hypochlorite solution to provide disinfection at the Pyramid Water Treatment Plant. It will be highly advantageous if the selected On-Site Sodium Hypochlorite Generation System utilizes the same space that the existing chlorine gas system does. In addition to this transition, the City of Unalaska Department of Utilities is in the process of installing micro hydro turbine generators (microturbines) that will utilize excess potential energy from incoming raw water to produce electricity which will be fed to the City of Unalaska electrical distribution grid. Construction for the microturbines installation is scheduled to occur between October 1, 2021 and December 1, 2021.

The information from the selected On-Site Sodium Hypochlorite Generation System will be incorporated into the design and construction documents of the Chlorine Upgrade Project. A procurement contract will be executed with the selected proposal for the On-Site Sodium Hypochlorite Generation System with the City of Unalaska. This procurement contract will be subsequently reassigned to the General Contractor that is awarded the construction contract for the Chlorine Disinfection Upgrade Project. It is intended that the Chlorine Upgrade Project will be constructed concurrently with the microturbines project between October 1 to December 1, 2021. The Pyramid Water Treatment Plant was constructed in 2016 with a design treatment capacity of 9.0 MGD that serves Unalaska's residences, business, and industry. Unalaska has approximately 4,500 permanent residents and up to 5,000 transient residents during seafood processing seasons. Currently flows peak at 7.5 MGD during seafood processing seasons. Chlorine dosing at the Pyramid Water Treatment Plant aims to have a chlorine residual in the distribution system of 0.6 mg/l.

The Pyramid Water Treatment Plant flow and chlorine concentration downstream of the chlorine gas injection point was data was reviewed for the past four years of operation. The summary of this data review is presented in the below table:

Summary Table of PWTP Chlorine Dosing, Plant Production, and Estimated Daily Chlorine Requirement									
Maximum Minimum						Average			
	Cl	MGD	# of	Cl	MGD	# of	Cl	MGD	# of
	dose		Cl	dose		Cl	dose		Cl
2017	1.5	6.71	63	0.3	0.0	0	0.9	3.5	26
2018	1.4	6.71	68.6	0.1	0.0	0	0.9 3.0		23
2019	1.4	6.5	63	0.4	0.0	0	0 0.9 2.0 20		
2020	1.80	6.4	52	0.6	0.0	0 1.0 3.1			
2021	1.3	5.8	49	0.8	1.4	11	0.9	3.4	27
							0.93	2.9	23.8

Chlorine dosing at the Pyramid Water Treatment Plant typically varies between 0.8 mg/L and 1.4 mg/L based on the turbidity of the incoming raw water. During the period of review, the maximum average daily chlorine dose found was 1.8 mg/L. There were nine events where chlorine dosing exceeded 1.8 mg/L during the review period. During these events, the chlorine dosing that exceeded 1.8 mg/L typically lasted for less than one hour. Pyramid Water Treatment Plant operators estimate that the maximum initial chlorine demand, the amount of chlorine consumed between chlorine gas injection and the chlorine analyzer, is 0.05 mg/L. Thus, the design peak daily average chlorine dose was set at 1.85 mg/L (1.8 mg/L + 0.05 mg/L).

When this peak daily average Chlorine dose is applied over the design capacity of the Pyramid Water Treatment Plant, 9.0 MGD, the On-Site Sodium Hypochlorite Generation System must be capable of producing a minimum of 139 pounds of chlorine a day. And while during the review period there was not a day where the chlorine demand exceeded 70 pounds of chlorine a day, an On-Site Sodium Hypochlorite Generation System must be able to supply sufficient chlorine for the scenario where the PWTP is treating water at its design capacity, 9.0 MGD, and the raw water demands a chlorine dose of 1.85 mg/L due to high turbidity on a continual basis.

In addition to producing a minimum of 139 pounds of chlorine a day, the On-Site Sodium Hypochlorite Generation System must be designed and supplied to be fully redundant. Thus, two sub-systems must be supplied that are capable of accepting incoming raw water and dose the produced sodium hypochlorite above the minimum daily required capacity (139 pounds of chlorine) completely independent of the other sub-system.

2.0 SELECTION PROCESS

Only one proposal from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the City of Unalaska that any respondent has interest in more than one proposal for the request, then all proposals in which such respondent has interest will be rejected.

2.1 EVALUATION AND AWARD PROCESS

The Director of Public Works will appoint an evaluation team. The entire scoring procedure, including evaluation team meetings and scoring materials, will be held strictly confidential until after negotiations are concluded.

All evaluation team members will be required to certify that they have no conflicts of interest and that they will strictly adhere to the procedures herein described.

The following is an anticipated timetable of the events relating to the proposal process for the On-Site Sodium Hypochlorite Generation System. This schedule is only a guideline and the City of Unalaska reserves the right to modify this timetable as required during the course of the procurement process.

Event	Anticipated Date
RFP Issued	4/16/2021
Project Review Meeting	4/21/2021
RFP submittal deadline	5/16/2021
Evaluate received submittals	5/17/2021
Proposal selection	5/17/2021
Executed Purchase Agreement	5/20/2021
Purchase Order Issued	5/21/2021

Negotiation with the respondent with the highest scored proposal or, if necessary, the next lowest scored respondent and so on, will occur immediately upon selection. The agreement will be an Engineers Joint Contract Documents Committee standard procurement agreement. A draft agreement is attached in **Attachment A**.

2.2 CONDITIONS

The City of Unalaska reserves the right to reject any and all proposals and/or to waive any informality in procedures.

This RFP does not commit the City of Unalaska to award a contract, or procure or contract for any services or goods of any kind whatsoever.

The selection of a successful respondent shall be at the sole discretion of the City of Unalaska. No agreement between the City of Unalaska and any respondent is effective until signed by the City Manager and a Purchase Order issued.

The City of Unalaska is not liable for any costs incurred by respondents in preparing or submitting proposals.

In submitting a proposal, each respondent acknowledges that the City of Unalaska is not liable to any entity for any costs incurred therewith or in connection with costs incurred by any respondent in anticipation of City of Unalaska action approving or disapproving any agreement without limitation.

Any perception of a conflict of interest is grounds for rejection of any proposal. In submitting a proposal, each respondent certifies that they have not and will not create and/or be party to conflicts of interest with any City of Unalaska official or employee. Including but not limited to any direct or indirect financial gain and/or gratuity or kickback or through unauthorized communication with City of Unalaska employees or officials not listed in this RFP before the selection process is complete.

Nothing in this RFP or in subsequent negotiations creates any vested rights in any person.

2.3 TRANSMITTAL REQUIREMENTS

Requests for Proposals will be accepted before and on the published date and until the time specified. Each electronic file must be clearly named to identify the contents as a Request for Proposal for the On-Site Sodium Hypochlorite Generation System.

Proposals must be submitted in a single email no larger than 20 megabytes and the email header must clearly identify the project and the respondent e.g.

Name of Firm – Proposal for On-Site Sodium Hypochlorite Generation System

Request for Proposals must be delivered to the email addresses below by <u>2:00 p.m.</u>, <u>local time, on May 16, 2021</u>, from a valid email account.

mveeder@ci.unalaska.ak.us and rwinters@ci.unalaska.ak.us

2.4 DOCUMENT REQUIREMENTS

One (1) copy of the proposal must be submitted in an electronic PDF file less than 20 megabytes in size, organized with bookmarks, and printable to standard 8.5" x 11" paper.

3.0 EVALUATION FACTORS

Proposals will be evaluated based on the following criteria.

<u>Ma</u>	Weight	
A.	Redundancy	[10]
В.	Previous Experience & References	[5]
C.	Equipment Price	[20]
D.	Operation	[10]
E.	Maintenance	[10]
F.	Installation & On-going Support	[5]
G.	Utilization of Existing Space & Hoist	[20]
Н.	Delivery Timeline	[20]
Tot	tal	[100]

The evaluation team will score each proposal using an evaluation matrix. A copy of this evaluation matrix is attached in **Attachment B**.

3.1 EVALUATION CRITERIA

A. Redundancy (10%)

The ability of the On-Site Sodium Hypochlorite Generation System to produce and dose sodium hypochlorite appropriately after component failure or maintenance activities will be evaluated.

B. Previous Experience (5%)

Proposals shall include three case studies of installations that most closely approximate the proposed installation at the Pyramid Water Treatment Plant. Contact information shall be provided for these installations.

C. Equipment Price (20%)

The proposal shall quote individual line items that include at a minimum the following items: brine tanks, sodium hypochlorite storage tanks, sodium hypochlorite dosing pumps, hydrogen management system, water softeners, control cabinets, rectifiers, and sodium hypochlorite generation equipment. The proposal shall also quote a total for the complete On-Site Sodium Hypochlorite Generation System including any ancillary equipment not explicitly identified above. The proposal shall quote all freight and handling charges required for FOB delivery to Unalaska, Alaska.

The score for this criterion shall be based on the following formula:

 $Equipment \ Price \ Score = \frac{Lowest \ Vendor \ Total \ Equipment \ Price}{Vendor \ Total \ Equipment \ Price} \times Max \ Score \ (5)$

D. Operation (10%)

The ease of operations including the accessibility to equipment for the proposed On-Site Sodium Hypochlorite Generation System will be evaluated. The ease of integrating the operations of the On-Site Sodium Hypochlorite Generation System into the existing SCADA system will be analyzed.

E. Maintenance (10%)

The ease and frequency of required and recommended maintenance activities will be evaluated. The replacement cost of the sodium hypochlorite generating electrolytic cells will be evaluated on a cost per pound of chlorine basis. Replacement cost of spare parts and items that may eventually require replacement will be evaluated as well.

F. Installation & On-going Support (5%)

The detail, quality and cost of the proposed support during the installation and on an on-going basis will be evaluated. The quality and length of the proposed warranty will also be evaluated.

G. Utilization of Existing Space & Hoist (20%)

The proposal shall clearly demonstrate that the proposed On-Site Sodium Hypochlorite Generation System will fit within the footprint of the existing Pyramid Water Treatment Plant Chlorine Room. If the proposed On-Site Sodium Hypochlorite Generation System can demonstrate that it can use the existing Chlorine Room hoist to facilitate salt loading of brine tanks with supersacks it will be evaluated more favorably. A copy of the Pyramid Water Treatment Plant as-builts are attached in **Attachment C**. Some photos of the existing Chlorine Room are attached in **Attachment D**.

H. Delivery Timeline (20%)

The total amount of time required until delivery to Unalaska, Alaska, will be evaluated. A commitment to deliver before October 1, 2021 will evaluated most favorably. All requirements and assumptions and/or conditions utilized to determine a guaranteed delivery date must be specified in detail.

4.0 SCOPE OF WORK

4.1 OVERVIEW

The City of Unalaska plans to transition from chlorine gas to injection of a dilute liquid sodium hypochlorite solution to provide disinfection at the Pyramid Water Treatment Plant (PWTP). It is anticipated that the selected On-Site Sodium Hypochlorite Generation System will utilize the same space that the current chlorine gas injection system occupies (Chlorine Room) in the Pyramid Water Treatment Plant. It will be highly advantageous if all necessary equipment can be guaranteed to be delivered to Unalaska, Alaska by October 1, 2021.

The scope of work for this project includes but is not limited to the following:

- A. Fabricate and deliver equipment for a completely redundant On-Site Sodium Hypochlorite Generation System.
- B. Provide shop drawings and product data submittals prior to fabrication.
- C. Provide an operation and maintenance manual.
- D. Provide start-up services, performance testing, and training.
- E. Deliver recommended spare parts, maintenance items, and consumables
- F. Provide an additional technical advisory site visit.

The cost of design assistance to City of Unalaska and their design engineers, Taku Engineering, Inc., shall be included in the equipment cost supplied in the proposal.

The following parameters shall be used as a basis for this proposal:

PWTP design flow rate	9.0 MGD
Minimum chlorine demand	139 ppd
Sodium hypochlorite storage requirement	12 hours of minimum chlorine demand
Maximum height of brine tanks from floor	49"
Redundancy	Complete redundancy required
Minimum temperature of inlet water	32°F minimum
Maximum temperature of inlet water	58°F maximum
Inlet water pressure range	30-80 psig
Temperature of equipment installation space	70°F adjustable
Installation in existing PWTP Chlorine Room	Highly desirable
Use of existing hoist to assist salt addition	Desirable
Preferred equipment delivery deadline	October 1, 2021

The work that is to be performed by other is as follows:

- A. Off-loading of equipment at the point of delivery
- B. Storage of equipment until installation
- C. Demolition of existing disinfection equipment and construction required to prepare building to accept proposed equipment
- D. Installation of equipment
- E. Integration of equipment with existing SCADA system

4.2 SODIUM HYPOCHLORITE GENERATION EQUIPMENT

Equipment for a complete and functional On-Site Sodium Hypochlorite Generation System shall be provided. This equipment shall include but is not limited to: brine tanks, sodium hypochlorite storage tanks, sodium hypochlorite dosing pumps, hydrogen management system, water softeners, control cabinets, rectifiers, sodium hypochlorite generating electrolytic cells, water heaters/chillers, and any ancillary equipment required. The system should be completely redundant and be able to continually produce, store, and dose sodium hypochlorite without mechanical modification to the system in the event of component failure or maintenance activities. In addition, both sub-systems should have the capability to produce, store, and dose sodium hypochlorite simultaneously.

The On-Site Sodium Hypochlorite Generation System shall generate an aqueous solution to a concentration of 0.8% (±0.05%) by weight sodium hypochlorite expressed as chlorine. The minimum capacity shall be demonstrated to equal the capacity specified and be able to supply a minimum of 139 pounds of chlorine per day. The proposed system shall be able to store a minimum of 12 hours of the minimum daily chlorine demand (139 ppd). The system shall include equipment required to achieve the desirable water temperature of the system to function properly and efficiently.

All equipment that can be mounted on pre-assembled racks or skids shall be. At a minimum, the sodium hypochlorite generating cells, power supply, rectifier, water and brine rotameters, control cabinets, interconnect pipes, valves and fittings, interconnect conduit and wiring, water flow sensors, and brine pumps shall be so mounted. All rack or skid materials shall be 304 stainless steel or powdered coated aluminum. The completed assemblies with all mounted equipment shall comply with IBC structural requirements for seismic design category D2.

Hydrogen safety management should be implemented with a system that has a proven safety record. A hydrogen gas monitoring system shall be specified to continuously measure and display hydrogen gas concentration and provide alarms when preset limits are exceeded and be able to integrate with the existing SCADA system.

It is highly desirable for the supplied On-Site Sodium Hypochlorite Generation System to fit completely within the Chlorine Room in the existing Pyramid Water Treatment Plant

and utilize the hoist in this room to facilitate salt loading into brine tanks using 2,000pound supersacks of salt. The Chlorine Room is indicated as Room 108 in **Attachment C** - Pyramid Water Treatment Plant As-builts. The existing chlorine gas disinfection equipment and associated ancillary equipment will be removed prior to installation. All HVAC equipment and the hoist will remain. The proposal shall include a detailed scaled drawing showing a proposed layout of the proposed On-Site Sodium Hypochlorite Generation System that indicates how the proposed system will integrate with the Chlorine Room (108) of the existing Pyramid Water Treatment Plant. The City of Unalaska intends to use supersacks of salt to load the brine tanks. If the brine tanks do not have material above 49" above floor height and the brine tanks are centered under the existing hoist, this loading shall be possible. Proposals that permit the use of the existing hoist as described will be more favorably evaluated.

The proposed layout shall allow easy access to all equipment for operation, maintenance and replacement. Existing ingress and egress to the Chlorine Room (108) shall not be hindered.

All equipment provided shall be obtained from a single supplier who assumes full responsibility for the completeness and proper operation of the On-Site Sodium Hypochlorite Generation System. The supplied On-Site Sodium Hypochlorite Generation System shall be factory tested as one self-contained unit prior to shipping. Factory testing shall include leak testing, piping and instrumentation check, verification of control panel wiring and operation, and confirmation of proper operating performance over a minimum of eight hours. The supplier shall coordinate with the City of Unalaska to allow City of Unalaska staff or representatives to be present during factory testing if desired. Factory testing results shall be reviewed and accepted by the City of Unalaska before shipment.

In preparation for shipment, where practical, factory assemble components. Mark or tag separate parts and assemblies to facilitate field assembly according to supplied instructions. Package equipment to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, name of project, contents by name, equipment or part number, and approximate weight. Include a complete packing list and bill of materials with each shipment.

Deliver all equipment FOB destination Unalaska, Alaska. Specify a guaranteed delivery date. All requirements and assumptions and/or conditions utilized to determine a guaranteed delivery date must be specified in detail.

Provide three case studies of installations that most closely approximate the proposed On-Site Sodium Hypochlorite Generation System. Provide contact information for the operators of these installations.

4.3 SHOP DRAWINGS AND PRODUCT SUBMITTALS

Due to the time sensitive nature of the On-Site Sodium Hypochlorite Generation System delivery, the City of Unalaska commits to reviewing all submittals in less than five (5) working days from receipt. If the City of Unalaska provides submittal review feedback in greater than five (5) days from submission date, upon request, the delivery date in the procurement contract will be modified accordingly. The following information shall be electronically submitted to the City of Unalaska for review and approval prior to fabrication to ensure the proposed equipment conforms to the site-specific requirements.

- A. Process and instrumentation diagram for the system
- B. Shop drawings and catalog literature showing dimensional information and details of piping, fabrication, and erection of all materials and equipment furnished under this section, including:
 - 1) Detailed drawings of tank nozzle orientations provided.
 - 2) Detailed drawings of equipment installations provided.
- C. Scaled drawing of general layout, general arrangements, and major system components, including:
 - 1) Dimensions, including those for system connections.
- D. Drawings showing fabrication, assembly, installation, and wiring diagram. Wiring diagrams for the electrical control panel and rectifier transformer shall consist of, at a minimum, control schematics, including coordination with other electrical devices operating in conjunction with the On-Site Sodium Hypochlorite Generation System.
- E. Manufacturer's literature, illustrations including weight and dimensions, specifications, materials of construction, and bill of materials for each component of the system.
- F. Performance data: for each pump and blower furnish a performance certification indicating:
 - 1) Pressure
 - 2) Capacity
 - 3) Efficiency
 - 4) Horsepower
- G. Motor data: for each motor furnish a certified motor data sheet for the actual motor or for a previously manufactured electrically duplicate motor which was tested.
- H. Control philosophy including I/O list and loop descriptions.
- I. The acceptable range of water pressure for proper system operation. If a pressure or flow regulator is required, it shall be provided.
- J. A list of all parameters, ratings, or other characteristics where the proposed On-Site Sodium Hypochlorite Generation System deviates from the requirements set forth in this document.
- K. Detailed installation instructions to facilitate proper installation by the contractor. Include any procedures required prior to start-up certification by the supplier.

- L. Current NSF Standard 61 Certification for the supplied sodium hypochlorite generation assembly.
- M. Affidavits of compliance with standards and codes.

4.4 OPERATION AND MAINTEANCE MANUALS

A detailed Operation and Maintenance (O&M) manual shall be provided to the City of Unalaska for review and approval. The approved Operation and Maintenance manual shall be bound in hard back three ring binders that include a table of contents and tab sheets to identify the location of each section. All material that does not apply to the equipment supplied for this project shall be removed or crossed out.

In addition to the bound Operation and Maintenance manuals, a copy of the Operations and Maintenance manuals shall be submitted in Adobe Acrobat (pdf) format. All electronic materials should match the table of contents of the hard-bound Operation and Maintenance manual and have a table of contents that provides links to the appropriate section of the Operation and Maintenance manual. There shall be no section of this document longer than five pages in length without a direct link from the table of contents. Each section of the electronic Operations and Maintenance manuals should have a link back to the table of contents. The Adobe Acrobat version of the Operation and Maintenance manual shall be submitted for review and approval.

At a minimum the following shall be included in the operation and maintenance manual:

- A. Required operation data
 - 1) Complete, detailed operating instructions for each piece of equipment.
 - 2) Recommended installation adjustment, start-up, calibration, and troubleshooting procedures.
 - 3) A control sequence describing start-up, operation, stand-by, and shutdown.
 - 4) Recommended step-by-step procedures for all modes of operation.
 - 5) Explanations for all safety considerations relating to operations.
 - 6) Complete internal and connection wiring diagrams.
 - 7) Performance testing protocol including a recommended test plan, measurement methods, and sample data sheet showing all pertinent process data to be recorded and the frequency of the data readings.
- B. Required maintenance data
 - 1) All information and instructions required by plant personnel to keep the On-Site Sodium Hypochlorite Generation System properly cleaned, lubricated, and adjusted so that it functions economically throughout its full design life.

- Recommended schedule of maintenance tasks for each component of the system. A combined summary schedule of maintenance tasks required for the complete system shall be included.
- 3) Explanation with illustrations, as necessary, for each maintenance task.
- 4) Maintenance task tracking summary forms.
- 5) Recommended lubrication schedule and table of alternate lubricants. Estimate and include of the yearly quantity needed.
- 6) Name, address, and phone number of manufacturer and manufacturer's local service representative and nearest supplier for major system components.
- 7) Detailed list of required and recommended maintenance tools and equipment.

4.5 START-UP, PERFORMANCE TESTING, AND TRAINING SERVICES

A. Start-up services

It is anticipated that the supplied On-Site Sodium Hypochlorite Generation System will be installed shortly after delivery in October 2021. The supplier will be required to coordinate closely with the City of Unalaska to ensure that a supplier representative will be present at the project site to allow for timely certification of proper On-Site Sodium Hypochlorite Generation System installation and start-up. The supplier quoted cost for these services shall be all-inclusive, including but not limited to materials, airfare, accommodation, meals, incidentals, etc.

Start-up services provided should include an installation certification and system start-up. Installation inspection shall include an inspection and supervising the correction of any defective or faulty work identified through the installation inspection. Only after the On-Site Sodium Hypochlorite Generation System has been inspected and certified by the supplier, the On-Site Sodium Hypochlorite Generation System initial start-up shall be initiated by supplier in coordination with City of Unalaska personnel.

B. Performance Testing

The supplier should submit a testing plan and procedure that it plans to follow to determine if the installed and operational On-Site Sodium Hypochlorite Generation System performs according to operational performance parameters. At a minimum the following performance parameters should be tested; electrical consumption, salt consumption, sodium hypochlorite concentration, and rate of chlorine produced.

C. Training

The supplier shall furnish a representative to be present at the project location for detailed classroom and hands-on training to City of Unalaska personnel on operation and maintenance of the entire On-Site Sodium Hypochlorite Generation System, sub-system and individual components. This training shall be conducted on the same visit as On-Site Sodium Hypochlorite Generator System installation certification, start-up and performance testing. A proposed lesson plan, training materials and schedule of the proposed training shall be submitted to the City of Unalaska for review and approval not less than 21 days from expected equipment delivery. Provide six sets of training materials to be retained by each trainee.

4.6 MAINTENANCE EQUIPMENT, SPARE PARTS, CONSUMMABLES

The supplier shall provide a detailed quote and deliver recommended maintenance tools and equipment, spare parts and consumables (lubricants, etc.) required for one year of continuous operation of the proposed On-Site Sodium Hypochlorite Generation System. In addition, an additional quote for optional maintenance items, spare parts and consumables shall be provided. The replacement cost for any components that occasionally or rarely require replacement shall be quoted including but not limited to; electrolytic sodium hypochlorite generating cells, rectifier, and transformer.

4.7 ADDITIONAL TECHNIAL ADVISORY SITE VISIT

The supplier shall quote an additional one full working day technical advisory site visit to the Pyramid Water Treatment Plant in Unalaska, Alaska, by a mutually agreed upon supplier representative. This quote shall be all-inclusive, including but not limited to airfare, accommodation, meals, incidentals, etc. The date of this site visit shall be a mutually agreed upon date with the City of Unalaska within two years of the installation of the On-Site Sodium Hypochlorite Generation System.

The supplier shall provide a detailed description of how on-going support for the supplied On-Site Sodium Hypochlorite Generation System can be provided and the costs for these services if they are required.

ATTACHMENT A

Draft Procurement Agreement

STANDARD PROCUREMENT AGREEMENT BETWEEN OWNER AND SUPPLIER

THIS PROCUREMENT AGREEMENT is dated as of this _____ day of ______, 2021, by and between the **City of Unalaska** (hereinafter called "OWNER") and (hereinafter called "SUPPLIER").

OWNER and SUPPLIER, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. GOODS AND SERVICES.

SUPPLIER shall furnish the Goods, Special Services, and Other Services as specified or indicated in the PROCUREMENT DOCUMENTS. The Goods to be furnished are generally described as follows:

Supply [Insert language from RFQ].

Article 2. ENGINEER.

The Goods have been specified by the following:

[Insert Engineering Firm, Principal designer name, address, phone, fax, and email]

who is hereinafter called "ENGINEER" and who will act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER by OWNER in connection with the furnishing of the Goods, Special Services, and Other Services in accordance with the PROCUREMENT DOCUMENTS.

Article 3. POINT OF DELIVERY.

The place where the Goods are to be delivered is defined in the Procurement General Conditions as the point of delivery and designated as:

F.O.B. Unalaska, Alaska

Article 4. CONTRACT TIME.

- 4.1 The Goods are to be delivered to the POINT OF DELIVERY and ready for OWNER's acceptance of delivery on (or within a period of fifteen (15) days prior to) _____.
- 4.2 All shop drawings and samples required by the PROCUREMENT DOCUMENTS will be submitted to ENGINEER for review and approval within ten (10) days after the date when the Contract Time commences to run as provided in paragraph 2.2 of the Procurement General Conditions.
- 4.3 Liquidated Damages. OWNER and SUPPLIER recognize that time is of the essence of this PROCUREMENT AGREEMENT and that OWNER will suffer financial loss if the Goods are not delivered at the POINT OF DELIVERY and ready for acceptance of delivery by OWNER within the time specified in paragraph 4.1 above, plus any extensions thereof allowed in accordance with Article 12 of the Procurement General Conditions. They also recognize that the

timely performance of services by other parties involved in OWNER's project are materially dependent upon SUPPLIER's specific compliance with the requirements of paragraph 4.1 Further, they recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual losses or damages (including special, indirect, consequential, incidental, and any other losses or damages) suffered by OWNER if complete acceptable Goods are not delivered on time. Accordingly, and instead of requiring proof of such losses or damages, OWNER and SUPPLIER agree that as liquidated damages for delay (but not as a penalty) SUPPLIER shall pay FIVE HUNDRED DOLLARS (\$500) for each day that expires after the time specified in paragraph 4.1 for delivery of acceptable Goods.

Article 5. CONTRACT PRICE.

OWNER shall pay SUPPLIER for furnishing the Goods, Services, and Special Services, and for performing other services in accordance with the PROCUREMENT DOCUMENTS in current funds as follows:

[INSERT LANGUAGE FROM ACCEPTED, APPROVED QUOTE].

Article 6. PAYMENT PROCEDURES.

SUPPLIER shall submit Application for Payment in accordance with Article 6 of the Procurement General Conditions. Applications for Payment will be processed by ENGINEER as provided in the Procurement General Conditions.

- 6.1 Progress Payments. OWNER shall make progress payments on account of the CONTRACT PRICE in accordance with paragraph 6.3 of the Procurement General Conditions on the basis of SUPPLIER's Applications for Payment as follows:
 - 6.1.1 Upon receipt of the first Application for Payment submitted in accordance with paragraph 6.1 of the Procurement General Conditions and accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.2.1 of the Procurement General Conditions, an amount equal to 50% of the CONTRACT PRICE
 - 6.1.2 Upon receipt of the second such Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.2.2 of the Procurement General Conditions, an amount sufficient to increase total payments to SUPPLIER to 85% of the CONTRACT PRICE, less such amounts as ENGINEER shall determine in accordance with paragraph 6.2.3 of the Procurement General Conditions.
- 6.2 Final Payment. Upon receipt of the final Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.6 of the Procurement General Conditions, OWNER shall pay the remainder of the CONTRACT PRICE as recommended by ENGINEER.

Article 7. INTEREST.

All moneys not paid when due hereunder shall bear interest at the rate required by AS36.90.250, if applicable.

Article 8. SUPPLIER'S REPRESENTATIONS.

In order to induce OWNER to enter into this PROCUREMENT AGREEMENT, SUPPLIER makes the following representations:

- 8.1 SUPPLIER has familiarized himself with the nature and extent of the PROCUREMENT DOCUMENTS and has given ENGINEER written notice of all conflicts, errors, or discrepancies that he has discovered in the PROCUREMENT DOCUMENTS and the written resolution thereof by ENGINEER is acceptable to SUPPLIER.
- 8.2 SUPPLIER has familiarized himself with all local conditions and Federal, State, and Local laws, ordinances, rules, and regulations that in any manner may affect the production and delivery of the Goods and furnishing of Special Services and Other Services in connection herewith.
- 8.3 SUPPLIER does not require additional information from OWNER or ENGINEER to enable SUPPLIER to furnish the Goods, Special Services, or Other Services at the CONTRACT PRICE, within the CONTRACT TIME, and in accordance with the other terms and conditions of the PROCUREMENT DOCUMENTS, but subject to SUPPLIER's right to request interpretations and clarifications in accordance with paragraph 9.2 of the Procurement General Conditions.
- 8.4 SUPPLIER has correlated the results of all such examinations, investigations, and resolutions with the terms and conditions of the PROCUREMENT DOCUMENTS.

Article 9. PROCUREMENT DOCUMENTS.

The PROCUREMENT DOCUMENTS which comprise the entire Agreement between OWNER and SUPPLIER are attached to, or accompany, this PROCUREMENT AGREEMENT, made a part hereof, and consist of the following:

- 9.1 This PROCUREMENT AGREEMENT (pages 1 to ___, inclusive).
- 9.2 Exhibits to this PROCUREMENT AGREEMENT (pages _____ to ____, inclusive).
- 9.3 Performance and other Bonds, identified as Exhibits and consisting of _____ pages.
- 9.4 Notice of Award.
- 9.5 Procurement General Conditions (pages _____ to ____, inclusive).
- 9.6 Procurement Supplementary Conditions (pages 1 to 2, inclusive).
- 9.7 Drawings, consisting of a cover and sheets numbered _____ through _____, inclusive, with each sheet bearing the following general titles: [Insert].
- 9.8 Addenda numbers _____ to ____, inclusive.
- 9.9 SUPPLIER's Quote (pages _____ to ____, inclusive).
- 9.10 Documentation submitted by SUPPLIER prior to Notice of Award (pages _____ to ____, inclusive).
- 9.11 All Modifications, including Change Orders, duly delivered after execution of this PROCUREMENT AGREEMENT.
- 9.12 There are no PROCUREMENT DOCUMENTS other than those listed above in this Article 9. The PROCUREMENT DOCUMENTS may only be altered, amended, or repealed by a Modification (as defined in Article 1 of the Procurement General Conditions).

Article 10. MISCELLANEOUS.

- 10.1 Terms used in this PROCUREMENT AGREEMENT which are defined in Article I of the Procurement General Conditions shall have the meanings indicated in the Procurement General Conditions.
- 10.2 No assignment by a party hereto of any rights under or interests in the PROCUREMENT DOCUMENTS will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the PROCUREMENT DOCUMENTS.
- 10.3 OWNER and SUPPLIER each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto, his partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the PROCUREMENT DOCUMENTS.

IN WITNESS WHEREOF, the OWNER and SUPPLIER have signed all counterparts of this PROCUREMENT AGREEMENT. All portions of the PROCUREMENT DOCUMENTS have been signed or identified by OWNER and SUPPLIER or by ENGINEER on their behalf.

This PROCUREMENT AGREEMENT with be effective on ______, 2021.

SUPPLIER

CITY OF UNALASKA, ALASKA

		, Its _		
State of Alaska	a)	
) ss.	
Third Judicial	Distri	ct)	,	
The forego acknowledged	oing befor	instrur re me c	nent on the	was
day of		,	2021,	by
	, the	e		
of		a		
Corporation,	on	behalf	of	the
cornoration				

Notary Public, State of Alaska My Commission Expires: _____ By: ___

Erin Reinders, City Manager State of Alaska)) ss.

Third Judicial District)

The foregoing instrument was acknowledged before me on the _____ day of _____, 2021, by Erin Reinders, City Manager for the City of Unalaska, a First Class Alaska Municipal Corporation, on behalf of the City of Unalaska.

Notary Public, State of Alaska My Commission Expires: _____

ATTACHMENT B

Evaluation Matrix

PWTP On-Site Sodium Hypochlorite Generation System RFP Evaluation CRITERIA CHECKLIST

				Scores available from 1-5
1. Redundancy	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Ability of system to produce Chlorine due to component failure				
Average Score				
2. Previous Experience	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Experience with Similar Sized Installations				
References/Case Studies				
Average Score				
3. Equipment Price	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Overall proposal price				
Average Score				
4. Operation	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Ease of Operations				
Accessibility to Equipment				
SCADA integration quality				
Average Score				
5. Maintenance	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Frequency of required Maintenance Activities				
Ease of required Maintenance Activities				
Replacement cost of electrolytic cell per #FAC/day capacity				
Replacement cost of common system components				
Average Score				
6. Installation & On-going Support	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Quality of Installation support				
Quality of on-going support				
Price of on-going support				
Warranty Length				
Warranty Terms				
Average Score				
7. Utilization of Existing Space and Hoist	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
All Equipment Fits in Existing Space				
Proposal Allows the Use of Existing Hoist for Salt Delivery				
Average Score				
8. Delivery Timeline	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Total # of Weeks until Equipment Delivery On-Site				
Average Score				

CRITERIA SCORES	WEIGHT	VENDOR 1 WEIGHTED SCORE	VENDOR 2 WEIGHTED SCORE	VENDOR 3 WEIGHTED SCORE	NOTES
1. Redundancy	0.10	0.0	0.0	0.0	
2. Previous Experience	0.05	0.0	0.0	0.0	
3. Equipment Price	0.20	0.0	0.0	0.0	
4. Operation	0.10	0.0	0.0	0.0	
5. Maintenance	0.10	0.0	0.0	0.0	
6. Installation & On-going Support	0.05	0.0	0.0	0.0	
7. Utilization of Existing Space and Hoist	0.20	0.0	0.0	0.0	
8. Delivery Timeline	0.20	0.0	0.0	0.0	
Total Score	1.00	0.0	0.0	0.0	