

SERVICES CONTRACT
Liquid Oxygen Tank B Replacement at Plant No. 2 (FE22-02)
Specification No. S-2023-1426BD

This SERVICES CONTRACT (hereinafter referred to as “Contract”), is made and entered into as of the date fully executed below, by and between Orange County Sanitation District (hereinafter referred to as “OC San”) and J.R. Filanc Construction Company, Inc. (hereinafter referred to as “Contractor”), and collectively referred to herein as the “Parties.”

RECITALS

WHEREAS, OC San desires to obtain the services of Contractor for the replacement of liquid oxygen Tank B at Plant No. 2 (“Services”) as described in Exhibit “A” attached hereto and incorporated herein by this reference; and

WHEREAS, Contractor is qualified to perform the Services by virtue of experience, training, education, and expertise; and

WHEREAS, OC San desires to engage Contractor to provide the Services; and

WHEREAS, OC San selected Contractor to provide the Services in accordance with OC San’s current Purchasing Ordinance; and

WHEREAS, on February 28, 2024, OC San’s Board of Directors, by minute order, authorized execution of this Contract.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and benefits specified below, the Parties agree as follows:

1. General.

1.1 This Contract and all exhibits hereto are made by OC San and the Contractor.

1.2 The following exhibits are incorporated by reference and made part of this Contract.

Exhibit “A” – Scope of Work
Exhibit “B” – Proposal and BAFO
Exhibit “C” – Determined Insurance Requirement Form
Exhibit “D” – Contractor Safety Standards
Exhibit “E” – Human Resources Policies
Exhibit “F” – General Conditions
Exhibit “G” – Bonds

1.3 In the event of any conflict or inconsistency between the provisions of the Contract and any of the provisions of the exhibits hereto, the provisions in the document highest in precedence shall be controlling. The order of precedence of the applicable documents is set forth below:

a. Addenda issued prior to the deadline for submitting the proposals – the last addendum issued will have the highest precedence

- b. Services Contract
 - c. Exhibit "A" – Scope of Work
 - d. Permits and other regulatory requirements
 - e. Exhibit "C" – Determined Insurance Requirement Form
 - f. Exhibit "F" – General Conditions
 - g. Exhibit "D" – Contractor Safety Standards
 - h. Notice Inviting Bids
 - i. Exhibit "B" – Proposal and BAFO
- 1.4 Except as expressly provided otherwise, OC San accepts no liability for any expenses, losses, or actions incurred or undertaken by Contractor as a result of work performed in anticipation of providing the Services to OC San.
- 1.5 Work Hours: All work shall be scheduled Monday through Friday, between the hours of 7:00 a.m. and 3:30 p.m.
- 1.6 Days: Shall mean calendar days, unless otherwise noted.
- 1.7 OC San holidays (non-working days) are as follows: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, and Christmas Day.
- 1.8 Work: Shall mean all work, labor, and materials necessary to provide the Services.
- 1.9 The provisions of this Contract may be amended or waived only by an amendment executed by authorized representatives of both Parties.
- 1.10 The various headings in this Contract are inserted for convenience only and shall not affect the meaning or interpretation of this Contract or any paragraph or provision hereof.

2. Scope of Work.

- 2.1 Contractor shall provide the Services identified in Exhibit "A" in accordance with generally accepted industry and professional standards.
- 2.2 Modifications to Scope of Work. OC San shall have the right to modify the Scope of Work at any time. All modifications must be made by an amendment signed by both Parties and consistent with Exhibit "F" - General Conditions (General Conditions), including the sections entitled REQUEST FOR CHANGE (CHANGES AT CONTRACTOR'S REQUEST) and OWNER INITIATED CHANGES.
- 2.3 Familiarity with Work. By executing this Contract, Contractor warrants that: (a) it has investigated the work to be performed; (b) it understands the facilities, difficulties, and restrictions of the work under this Contract; and (c) it has examined the site of the work and is aware of all conditions at the site. Should Contractor discover any latent or unknown condition materially differing from those inherent in the work or as represented by OC San, it shall immediately inform OC San of this and shall not proceed, except at Contractor's risk, until written instructions are received from OC San.

2.4 Performance. Time is of the essence in the performance of the provisions hereof.

3. Contract Term.

3.1 The Services shall be completed within six hundred twenty (620) calendar days from the effective date of the Notice to Proceed.

3.2 Extensions. The term of this Contract may be extended only by an amendment signed by both Parties and consistent with the General Conditions, including the section entitled EXTENSION OF TIME FOR DELAY.

4. Compensation.

4.1 As compensation for the Services provided under this Contract, OC San shall pay Contractor a total amount not to exceed Three Million Ninety-Eight Thousand Dollars (\$3,098,000.00).

4.2 Contractor shall provide OC San with all required premiums and/or overtime work at no charge beyond the amount specified above.

5. Payments and Invoicing.

5.1 OC San shall pay itemized invoices for work completed in accordance with Exhibit "A" thirty (30) days from receipt of the invoice and after approval by OC San's Project Manager or designee. OC San shall be the determining party, in its sole discretion, as to whether the Services have been satisfactorily completed.

5.2 Contractor shall submit its invoices to OC San Accounts Payable by electronic mail to APStaff@OCSan.gov. In the subject line, include "INVOICE" and the Purchase Order Number.

5.3 The invoices shall be consistent with the General Conditions, including the section entitled PAYMENT FOR WORK.

6. California Department of Industrial Relations Registration and Record of Wages.

6.1 To the extent Contractor's employees and/or its subcontractors perform work related to this Contract for which Prevailing Wage Determinations have been issued by the California Department of Industrial Relations (DIR) as more specifically defined under Labor Code section 1720 et seq., prevailing wages are required to be paid for applicable work under this Contract. It is Contractor's responsibility to interpret and implement any prevailing wage requirements and Contractor agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws.

6.2 Contractor and its subcontractors shall comply with the registration requirements of Labor Code section 1725.5. Pursuant to Labor Code section 1771.4(a)(1), the work is subject to compliance monitoring and enforcement by the California Department of Industrial Relations (DIR).

6.3 Pursuant to Labor Code section 1773.2, a copy of the prevailing rate of per diem wages is available upon request at OC San's principal office. The prevailing rate of per diem wages may also be found at the DIR website for prevailing wage determinations at <http://www.dir.ca.gov/DLSR/PWD>.

- 6.4 Contractor and its subcontractors shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations section 16461(e). Pursuant to Labor Code sections 1773.2 and 1771.4(a)(2), Contractor shall post a copy of the prevailing rate of per diem wages at the job site.
- 6.5 Contractor and its subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code section 1776. Contractor and its subcontractors shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3). Pursuant to Labor Code section 1776, the Contractor and its subcontractors shall furnish a copy of all certified payroll records to OC San and/or the general public upon request, provided the public request is made through OC San, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement of the Department of Industrial Relations. Pursuant to Labor Code section 1776(h), penalties for non-compliance with a request for payroll records may be deducted from progress payments.
- 6.5.1 As a condition to receiving payments, Contractor agrees to present to OC San, along with any request for payment, all applicable and necessary certified payrolls and other required documents for the period covering such payment request. Pursuant to Title 8, California Code of Regulations section 16463, OC San shall withhold any portion of a payment, up to and including the entire payment amount, until certified payroll forms and any other required documents are properly submitted. In the event certified payroll forms do not comply with the requirements of Labor Code section 1776, OC San may continue to withhold sufficient funds to cover estimated wages and penalties under the Contract.
- 6.6 The Contractor and its subcontractors shall comply with Labor Code section 1774 and section 1775. Pursuant to Labor Code section 1775, the Contractor and any of its subcontractors shall forfeit to OC San a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any work.
- 6.6.1 In addition to the penalty and pursuant to Labor Code section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or its subcontractor.
- 6.7 Contractor and its subcontractors shall comply with Labor Code sections 1810 through 1815. Contractor and its subcontractors shall restrict working hours to eight (8) hours per day and forty (40) hours per week, except that work performed in excess of those limits shall be permitted upon compensation for all excess hours worked at not less than one and one-half (1.5) times the basic rate of pay, as provided in Labor Code section 1815. The Contractor shall forfeit, as a penalty to OC San, twenty-five dollars (\$25) per worker per calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Labor Code sections 1810 through 1815.

- 6.8 Contractor and its subcontractors shall comply with Labor Code sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices by Contractor or any subcontractor.
- 6.9 Contractor shall include, at a minimum, a copy of the following provisions in any contract it enters into with any subcontractor: Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860, and 1861.
- 6.10 Pursuant to Labor Code sections 1860 and 3700, the Contractor and its subcontractors will be required to secure the payment of compensation to employees. Pursuant to Labor Code section 1861, Contractor, by accepting this contract, certifies that:

“I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

Contractor shall ensure that all its contracts with its subcontractors provide the provision above.

- 6.11 Contractor shall comply with the provisions specified in the General Conditions section entitled LAWS TO BE OBSERVED.

7. **Davis-Bacon Act.** Not Used.
8. **Damage to OC San’s Property.** Any of OC San’s property damaged by Contractor, any subcontractor, or by the personnel of either will be subject to repair or replacement by Contractor at no cost to OC San and consistent with the General Conditions, including the section entitled PRESERVATION OF PROPERTY.
9. **Freight (F.O.B. Destination).** Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.
10. **Audit Rights.** Contractor agrees that, during the term of this Contract and for a period of three (3) years after its expiration or termination, OC San shall have access to and the right to examine any directly pertinent books, documents, and records of Contractor relating to the invoices submitted by Contractor pursuant to this Contract.
11. **Contractor Safety Standards and Human Resources Policies.** OC San requires Contractor and its subcontractor(s) to follow and ensure their employees follow all Federal, State, and local regulations as well as the Contractor Safety Standards while working at OC San locations. If, during the course of the Contract, it is discovered that the Contractor Safety Standards do not comply with Federal, State, or local regulations, the Contractor is required to follow the most stringent regulatory requirement at no additional cost to OC San. Contractor, its subcontractors, and all of their employees shall adhere to the safety requirements in Exhibit “A,” all applicable Contractor Safety Standards in Exhibit “D,” and the Human Resources Policies in Exhibit “E.”

12. **Insurance.** Contractor and all its subcontractors shall purchase and maintain, throughout the term of this Contract and any periods of warranty or extensions, insurance in amounts equal to the requirements set forth in the signed Exhibit “C” – Determined Insurance Requirement Form. Contractor shall not commence work under this Contract until all required insurance is obtained in a form acceptable to OC San, nor shall Contractor allow any subcontractor to commence service pursuant to a subcontract until all insurance required of the subcontractor has been obtained. Failure to obtain and maintain the required insurance coverage shall result in termination of this Contract.
13. **Bonds.** Prior to entering into the Contract, Contractor shall furnish bonds (attached hereto in Exhibit “G”), consistent with the requirements specified in the General Conditions, and which shall be approved by OC San’s General Counsel. The bonds shall be one in the amount of one hundred percent (100%) of the total Contract price bid, to guarantee the faithful performance of the work, and the other in the amount of one hundred percent (100%) of the total Contract price bid, to guarantee payment of all claims for labor and materials furnished. This Contract shall not become effective until such bonds are supplied to and accepted by OC San. Bonds must be issued by a California admitted surety and must be maintained throughout the life of the Contract and during the warranty period.
14. **Indemnification and Hold Harmless Provision.** Contractor shall assume all responsibility for damages to property and/or injuries to persons, including accidental death, which may arise out of or may be caused by Contractor’s equipment and/or Services under this Contract, or by its subcontractor(s), or by anyone directly or indirectly employed by Contractor, and whether such damage or injury shall accrue or be discovered before or after the termination of the Contract. Except as to the sole active negligence of or willful misconduct of OC San, Contractor shall indemnify, protect, defend, and hold harmless OC San, its elected and appointed officials, officers, agents, and employees from and against any and all claims, liabilities, damages, or expenses of any nature, including attorneys’ fees: (a) for injury to or death of any person, or damage to property, or interference with the use of property arising out of or in connection with Contractor’s performance under the Contract, and/or (b) on account of use of any copyrighted or uncopyrighted material, composition, or process; or any patented or unpatented invention, article, or appliance furnished or used under the Contract, and/or (c) on account of any goods and services provided under this Contract. This indemnification provision shall apply to any acts or omissions, willful misconduct, or negligent misconduct, whether active or passive, on the part of Contractor or anyone employed by or working under Contractor. To the maximum extent permitted by law, Contractor’s duty to defend shall apply whether or not such claims, allegations, lawsuits, or proceedings have merit or are meritless; or which involve claims or allegations that any of the parties to be defended were actively, passively, or concurrently negligent; or which otherwise assert that the parties to be defended are responsible, in whole or in part, for any loss, damage, or injury. Contractor agrees to provide this defense immediately upon written notice from OC San, and with well qualified, adequately insured, and experienced legal counsel acceptable to OC San. This section shall survive the expiration or early termination of the Contract.
15. **Independent Contractor.** The relationship between the Parties hereto is that of an independent contractor and nothing herein shall be deemed to make Contractor an OC San employee. During the performance of this Contract, Contractor and its officers, employees, and agents shall act in an independent capacity and shall not act as OC San’s officers, employees, or agents. Contractor and its officers, employees, and agents shall obtain no rights to any benefits which accrue to OC San’s employees.

16. **Subcontracting and Assignment.** Any subcontracting or assignment shall be governed by the provisions of the General Conditions including the sections entitled SUBCONTRACTING and ASSIGNMENT.
17. **Disclosure.** Contractor agrees not to disclose, to any third party, data or information generated from this Contract without the prior written consent from OC San.
18. **Non-Liability of OC San Officers and Employees.** No officer or employee of OC San shall be personally liable to Contractor, or any successor-in-interest, in the event of any default or breach by OC San, or for any amount which may become due to Contractor or to its successor, or for breach of any obligation under the terms of this Contract.
19. **Third-Party Rights.** Nothing in this Contract shall be construed to give any rights or benefits to anyone other than OC San and Contractor.
20. **Applicable Laws and Regulations.** Contractor shall comply with all applicable Federal, State, and local laws, rules, and regulations. Contractor also agrees to indemnify and hold OC San harmless from any and all damages and liabilities assessed against OC San as a result of Contractor's noncompliance therewith. Any provision required by law to be included herein shall be deemed included as a part of this Contract whether or not specifically included or referenced.
21. **Licenses, Permits, Ordinances, and Regulations.** Contractor represents and warrants to OC San that it has obtained all licenses, permits, qualifications, and approvals of whatever nature that are legally required to provide the Services. Any and all fees required by Federal, State, County, City, and/or municipal laws, codes, and/or tariffs that pertain to the work performed under this Contract will be paid by Contractor.
22. **Regulatory Requirements.** Contractor shall perform all work under this Contract consistent with the General Conditions, including the section entitled STORMWATER REQUIREMENTS, and in strict conformance with applicable Federal, State, and local regulatory requirements including, but not limited to, 40 CFR 122, 123, 124, 257, 258, 260, 261, and 503, Title 22, 23, and Water Codes Division 2.
23. **Environmental Compliance.** Contractor shall, at its own cost and expense, comply with all Federal, State, and local environmental laws, regulations, and policies which apply to the Contractor, its subcontractors, and the Services, including, but not limited to, all applicable Federal, State, and local air pollution control laws and regulations.
24. **South Coast Air Quality Management District's Requirements.** It is Contractor's responsibility to ensure that all equipment furnished and installed be in accordance with the latest rules and regulations of the South Coast Air Quality Management District (SCAQMD). All Contract work practices, which may have associated emissions such as sandblasting, open field spray painting, or demolition of asbestos containing components or structures shall comply with the appropriate rules and regulations of SCAQMD.
25. **Warranties.** Contractor shall provide the warranties required in the Scope of Work and in the General Conditions, including the section entitled WARRANTY (CONTRACTOR'S GUARANTEE).

26. **Dispute Resolution.** Any disputes between the Parties shall be resolved as specified in the General Conditions, including the section entitled DISPUTES.
27. **Liquidated Damages.** In the event the Contractor fails to achieve completion of the work within the term of this Contract or achievement of any designated Milestones, after due allowance for extensions of time made in accordance with the Contract, if any, OC San will sustain damage which would be extremely difficult and impracticable to ascertain. The Parties therefore agree that in each such event, Contractor will pay to OC San liquidated damages (Liquidated Damages) as specified in the General Conditions, including section entitled TIME OF COMPLETION AND LIQUIDATED DAMAGES, in the sum of four hundred dollars (\$400.00) per day, as Liquidated Damages, and not as a penalty, for each and every calendar day during which completion of the work, as required in Exhibit "A," is so delayed. Contractor agrees to pay such Liquidated Damages and further agrees that OC San may offset the amount of Liquidated Damages from any monies due or that may become due Contractor under this Contract. Contractor also agrees that to the extent the amount of Liquidated Damages exceeds any monies due to the Contractor under this Contract, Contractor shall pay all such amounts to OC San upon demand. If this provision is found for any reason to be void, invalid, or otherwise inoperative so as to disentitle OC San from claiming Liquidated Damages, OC San is entitled to claim against the Contractor damages at law for the Contractor's failure to complete the work during the term of this Contract.
28. **Remedies.** In addition to other remedies available in law or equity, if the Contractor fails to perform the Services or repudiates its obligations under this Contract, or if OC San rejects the goods or Services or revokes acceptance of the Services, OC San may (a) cancel the Contract; (b) recover whatever amount of the purchase price OC San has paid, and/or (c) "cover" by purchasing, or contracting to purchase, substitute equipment and services for those due from Contractor. In the event OC San elects to "cover" as described in (c), OC San shall be entitled to recover from Contractor as damages the difference between the cost of the substitute equipment and services and the Contract price, together with any incidental or consequential damages.
29. **Force Majeure.** Neither party shall be liable for delays caused by accident, flood, acts of God, fire, labor trouble, war, acts of government, or any other cause beyond its control, but the affected party shall use reasonable efforts to minimize the extent of the delay. Work affected by a force majeure condition may be rescheduled by mutual consent of the Parties.
30. **Termination.**
- 30.1 OC San reserves the right to terminate this Contract for its convenience, with or without cause, in whole or in part, at any time, by written notice from OC San. Upon receipt of a termination notice, Contractor shall immediately discontinue all work under this Contract (unless the notice directs otherwise). OC San shall thereafter, within thirty (30) days, pay Contractor for work performed (cost and fee) through the date of termination. Contractor expressly waives any claim to receive anticipated profits to be earned during the uncompleted portion of this Contract. Such notice of termination shall terminate this Contract and release OC San from any further fee, cost, or claim hereunder by Contractor other than for work performed through the date of termination.
- 30.2 OC San reserves the right to terminate this Contract immediately upon OC San's determination that Contractor is not complying with the Scope of Work requirements, if the level of service is inadequate, or for any other default of this Contract.

30.3 OC San may also immediately terminate this Contract for default, in whole or in part, by written notice to Contractor:

- if Contractor becomes insolvent or files a petition under the Bankruptcy Act; or
- if Contractor sells its business; or
- if Contractor breaches any of the terms of this Contract; or
- if the total amount of compensation exceeds the amount authorized under this Contract.

30.4 All OC San's property in the possession or control of Contractor shall be returned by Contractor to OC San on demand or at the expiration or early termination of this Contract, whichever occurs first.

31. **Attorney's Fees.** If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Contract, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which the prevailing party may be entitled and as specified in the General Conditions, including in the section entitled CLAIMS.
32. **Waiver.** The waiver by either party of any breach or violation of, or default under, any provision of this Contract shall not be deemed a continuing waiver by such party of any other provision or of any subsequent breach or violation of this Contract or default thereunder. Any breach by Contractor to which OC San does not object shall not operate as a waiver of OC San's rights to seek remedies available to it for any subsequent breach.
33. **Severability.** If any section, subsection, or provision of this Contract; or any agreement or instrument contemplated hereby; or the application of such section, subsection, or provision is held invalid, the remainder of this Contract or instrument in the application of such section, subsection, or provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby, unless the effect of such invalidity shall be to substantially frustrate the expectations of the Parties.
34. **Survival.** The provisions of this Contract dealing with payment, warranty, indemnity, and forum for enforcement shall survive expiration or early termination of this Contract.
35. **Governing Law.** This Contract shall be governed by and interpreted under the laws of the State of California and the Parties submit to jurisdiction in the County of Orange in the event any action is brought in connection with this Contract or the performance thereof.
36. **Notices.**
36.1 All notices under this Contract must be in writing. Written notice shall be delivered by personal service, by electronic telecommunication, or sent by registered or certified mail, postage prepaid, return receipt requested, or by any other overnight delivery service which delivers to the noticed destination and provides proof of delivery to the sender. Rejection or other refusal to accept or the inability to deliver because of changed address for which no notice was given as provided hereunder shall be deemed to be receipt of the notice, demand, or request sent. All notices shall be effective when first received at the following addresses:

OC San: Donald Herrera
Senior Buyer
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708
dherrera@ocsan.gov

Contractor: David J. Kiess
Vice President
J. R. Filanc Construction Company, Inc.
740 N. Andreason Drive
Escondido, CA 92029
dkieess@filanc.com

36.2 Each party shall provide the other party written notice of any change in address as soon as practicable.

37. **Read and Understood.** By signing this Contract, Contractor represents that it has read and understood the terms and conditions of the Contract.
38. **Authority to Execute.** The persons executing this Contract on behalf of the Parties warrant that they are duly authorized to execute this Contract and that by executing this Contract, the Parties are formally bound.
39. **Entire Agreement.** This Contract constitutes the entire agreement of the Parties and supersedes all prior written or oral communications and all contemporaneous oral agreements, understandings, and negotiations between the Parties with respect to the subject matter hereof.

Intentionally left blank. Signatures follow on the next page.

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Contract to be signed by their duly authorized representatives.

ORANGE COUNTY SANITATION DISTRICT

Dated: _____

By: _____
Chad P. Wanke
Chair, Board of Directors

Dated: _____

By: _____
Kelly A. Lore
Clerk of the Board

Dated: _____

By: _____
Ruth Zintzun
Finance & Procurement Manager

J.R. Filanc Construction Company, Inc.

Dated: _____

By: _____

Print Name and Title of Officer

IG

Exhibit "A"
SCOPE OF WORK

EXHIBIT A
SCOPE OF WORK
Liquid Oxygen Tank B Replacement at Plant No. 2 (FE22-02)
SPECIFICATION NO. S-2023-1426BD

1. BACKGROUND

The current Liquid Oxygen (LOX) system at Plant 2 includes two LOX storage tanks designated as Tank A and Tank B, and associated vaporizers, piping, valves, and instruments. Tanks A and B were originally installed under Project P2-23-2 in 1977 as part of a LOX Generation and Storage system. Vaporizers A and B were added to the LOX system and installed by OC San Maintenance around 2007, and in 2015 the generation portion of the LOX system was removed by Project SP-129. Tank A was damaged and removed from service in 2018.

Tank A is being replaced under project FE21-07 and replacement will be completed prior to installation of Tank B.

The existing Tank B is a double walled tank, with a steel outer tank and a stainless-steel inner tank. Tank B has a nameplate volume of 43,000 gallons (water at standard atmospheric conditions) and is designed to contain LOX under a minimum temperature of -320°F and a maximum allowable working pressure (MAWP) of 150 psig. Tank B is supported by two saddles. Each saddle is anchored to a concrete foundation by a set of eight anchor bolts.

Currently the LOX system is maintained by a third party, Airgas. Oxygen is transported and delivered to the site by Airgas, several times per week. The LOX moves in and out of the storage tanks using tank pressure only.

2. SCOPE OF WORK

2.1 GENERAL

This Scope of Work (SOW) defines the requirements for the Work at Plant No. 2 that includes the removal of existing LOX Tank B, design and installation of a new in-kind replacement LOX Tank B including associated piping, valves, instruments, and appurtenances. Also included are requirements for testing, placement into operation, commissioning, and training.

The terms “Contractor,” “Bidder,” “Manufacturer”, “Designer”, or “Proposer,” all refer to the same entity.

The following tasks are included in the Work: 1) preparing and processing submittals; 2) demolishing existing Tank B; 3) designing and fabricating new Tank B; 4) designing and installing the anchor bolts that anchor the new tank to the existing concrete foundation; 5) installing Tank B on existing concrete tank foundation; 6) Tank B factory testing; 7) Tank B field testing and commissioning of the complete system; 8) providing training of OC San staff on system operation and maintenance; and 9) completing other tasks specified. The existing Tank B shall be demolished, and the new tank shall be placed and secured to the existing concrete foundation with new post installed anchor bolts. The pressure sustaining (horizontal) vaporizer associated with Tank B shall be replaced. The instruments, piping, and valves mounted on and near Tank B shall also be replaced. Interconnecting piping and appurtenances between Tank B and the existing piping will be replaced as needed for the removal and installation of the new tank and as shown (see Appendix 3). The existing fill line vaporizer, Tank A pressure sustaining vaporizer, or the main vaporizers are not a part of the Work. Maintain uninterrupted LOX supply for OC San treatment operations. Provide bypass piping if necessary. Provide back-up trailer mounted LOX

system as specified. Complete all the following tasks and activities:

- 2.1.1 All work shall be performed, and all components and materials shall be provided by the Contractor in accordance with Appendices 1 through 5. Provide all labor, elements, accessories, and appurtenances for a complete and fully operating system.
- 2.1.2 The new tank shall be designed as an Essential Facility with Seismic Category of IV. The work shall be completed in accordance with the latest applicable codes and regulations.
- 2.1.3 Installation shall be in accordance with the tank manufacturer's requirements. The tank manufacturer shall provide Certification of Proper Installation (COPI) prior to beginning testing and commissioning. Provide Certification of Proper Operation (COPO) prior to finishing testing and commissioning.
- 2.1.4 Contractor shall provide information on new equipment, valves, and instruments installed for the Work so that OC San can update Equipment and Instrument Database (EID) provided in Appendix 4. The EID is an Excel-based data collection and transition tool used to compile and migrate project-driven asset changes to OC San's Computerized Maintenance Management System, Maximo. The EID does not list all components of the project.
- 2.1.5 The Contractor shall be responsible for the removal of all debris and demolished items from this site associated with this SOW and maintaining a clean and uncluttered work area.
- 2.1.6 OC San reserves the right to salvage existing facilities or equipment after demolition. No facilities or equipment shall be taken off the site without OC San's written authorization.
- 2.1.7 The Contractor shall furnish services and other items of expense that may be necessary for a complete system and as required to perform all activities described herein, including project management, design and design management, field supervision, home office support, overseas office support, labor, permanent materials, construction equipment and tools, consumable supplies, transportation, testing, safety equipment and personnel protection equipment, temporary and support facilities, and insurance.
- 2.1.8 OC San will provide limited space at Plant No. 2 for a laydown and staging area as indicated on the Drawings provided in Appendix 2. The Contractor shall include, in its Proposal, all expenses and costs related to accessing the laydown and staging area provided by OC San or for an offsite storage and laydown area if required. Both OC San's trailer mounted tank and the Contractor provided trailer mounted LOX storage tank required for the project are located in this laydown and storage area. Design for Tank B can begin prior to completion of Tank A installation, but installation of Tank B shall not start until after Tank A (FE21-07) contractor has reached final completion stage and has demobilized from the site. It is estimated Tank A contractor will be demobilized between August 2024 and December 2024. Designated staging area will be available for Tank B Contractor after Tank A contractor demobilizes.
- 2.1.9 Contractor shall obtain written permission from OC San prior to starting physical work at the project location.

- 2.1.10 Contractor shall bring all discrepancies between the Scope of Work, Design Requirements, Field Conditions, and Reference Drawings to the attention of OC San for resolution, immediately upon discovery. No extra work shall proceed without OC San's prior written authorization.
- 2.1.11 OC San may assign inspectors and other staff to witness Contractor's activities, including, but not limited to, factory testing, installation, all readings taken, and all tests performed by Contractor. The presence or lack of presence of OC San or OC San's representative does not relieve the Contractor from the requirements to perform all testing, all quality control and quality assurance, and other tasks required for the Work. Submit test equipment and calibration certifications prior to taking readings and tests for OC San approval. See Appendix 5.
- 2.1.12 OC San has sampled components of existing Tank B, including the paint on the tank, and has not detected any surface asbestos or lead. If the Contractor encounters any suspected hazardous waste or substances in the course of the Work, they shall notify OC San immediately.
- 2.1.13 The Contractor shall be solely responsible for protecting in place Tank A and associated components of the existing LOX storage and feed system and to prevent damage to it. Tank A and existing LOX feed and storage facilities shall be maintained in operation during the execution of the work, except as noted. The Contractor shall coordinate the work to avoid any interference with normal operations of plant equipment and processes. Always maintain access to the system for OC San Operations and Maintenance staff.
- 2.1.14 Work Restrictions. Downtime for the LOX system or any of its components requiring power interruptions and other utility services or piping requiring taps or connections shall be kept to a minimum. Shutdown of Tank A or other interruptions in service are limited to a maximum of 4 hours per occurrence. Occurrences shall be limited to 2 times per week (not on Friday). Refer to Appendix 5 for additional requirements for LOX supply interruptions. Do not block access to LOX system fill line or OC San's temporary trailer mounted tank fill line. Any work that blocks roadways, access to buildings and parking lots shall require written acceptance from OC San prior to the work being done.
- 2.1.15 Shutdowns. Written Shutdown requests shall be submitted to the OC San Engineer or other designated OC San staff. Requests shall include a detailed shut down plan and drawings identifying the system or equipment included in the shutdown request. The OC San staff's written acceptance of shutdown plan and shutdown requests shall be obtained forty-five (45) calendar days in advance. Contractor shall follow OC San's lockout/tagout/verify (LOTO) procedures for requesting LOTO isolation of equipment and working under LOTO conditions. Contractor shall provide a lockout device for each worker. If Work on energized electrical systems is required, refer to and follow requirements of the section entitled "Working on Energized Systems" of the OC San Contractor Safety Standards, latest version. Contractor shall develop LOTO procedures for approval by OC San and shall implement LOTO procedures prior to shutdown.
- 2.1.16 Payment Schedule. Payment for specific items of work shall be as indicated in the table below. Payment for items not listed in the table below shall be invoiced monthly based upon percent complete as determined by OC San.

No.	Milestone [3]	% Invoiced [1]	Item [2]
1	Design submittal and calcs for Tank B and anchors have accepted status	100	2
2	Tank B shop drawings and fabrication drawings accepted	90	3
3	Remaining submittals accepted	10	3
4	Documentation of Tank B fabrication starting accepted.	20	4
5	Documentation that fabrication of Tank B is completed accepted	30	4
6	Tank B arrives at OC San Plant 2 (on-site)	50	4
7	Item 5 [2] Materials arrive on-site	100	5
8	Tank B and Materials arrive on-site	100	6
9	Tank B and Materials arrive on-site	100	7
10	Factory Test documentation accepted	100	8

[1] Percent of corresponding Proposal Item that can be invoiced once milestone is reached. See footnote [2].

[2] From Exhibit B, Price Proposal Form

[3] Accepted = Reviewed and Accepted by OC San

2.2 WORK ELEMENTS

The Contractor shall complete the Work and tasks described below.

2.2.1 PROJECT MANAGEMENT AND PLANNING:

- A. **DESIGN SERVICES:** The Contractor shall design Tank B to fit on the existing foundations and design tank, tank anchorage, piping, 3-way vaporizer valve and control panel, valving, electrical and instrumentation, and all other appurtenances to provide a complete and operational system. Design must bear the stamp of professional engineer licensed in the State of California. Anchor bolt calculations must be prepared by a Structural Engineer registered in the State of California.
- B. **FIELD SURVEY AND VERIFICATION.** Before submitting fabrication and shop drawings, the Contractor shall perform a field survey to determine dimensions, materials of construction, joint types, fitting types, electrical and instrumentation components, and take other measurements necessary to accurately design, fabricate and install the equipment. Such survey and verification shall include, but not be limited to anchor bolts, foundation elevation and dimensions, and points of connection to existing LOX system and electrical and instrumentation systems. Field verification shall include review of existing field electrical control panel where sensors and control signals are wired. Type of electrical signals, and engineering units range on each shall be field verified by the Contractor.
- C. **PROGRESS MEETINGS:** Contractor shall conduct recurring progress meetings. Attendees shall include Contractor, OC San, OC San designated representative, if any, and manufacturers, vendors, and sub-contractors as needed for the meeting agenda. The Contractor's project manager shall attend every meeting. Progress meetings shall occur twice a month until submittals are approved, monthly during procurement, and weekly during construction and have a minimum duration of 60 minutes. Assume every other meeting is in person during design, all meetings are virtual during procurement, and all meetings are in person during construction. OC

San will provide meeting space. Additional meetings may be required for the progress of the Work.

- D. PMWEB: The Project shall utilize PMWeb as the Project Control Management System (PCMS) for Project communication, submittal generation and tracking, change management, invoices, construction issue / RFI tracking, automation of key processes, and the overall management of the Contract. The PCMS is a cloud-based solution used to facilitate the electronic exchange of information. The PCMS runs inside most internet browsers. OC San will provide Contractor with user account and web address and up to five (5) PCMS licenses. Internet access is required to use the PCMS. The Contractor is responsible for its own connectivity to the Internet. OC San will provide a one (1)-time training session of up to two (2) hours to train up to five (5) of the Contractor's designated staff on general system requirements, procedures, and methods.

2.2.2 SAFETY RELATED TASKS. Follow all applicable requirements of the OC San Contractor Safety Standards (latest version) and CALOSHA requirements. All workers shall have 4-gas air quality monitors on their person while at the site that are suitable for high oxygen environments. Contractor shall provide Injury and Illness Prevention Plan, Site-Specific Safety Plan, and Hot Work Permits for OC San review and approval. Contractor shall complete a Contractor Safety Orientation meeting with OC San staff prior to starting field work. If entry into the tank is necessary, submit permit required confined space entry documents.

2.2.3 SUBMITTALS AND DELIVERABLES.

- A. City Permit. Contractor shall produce drawings and information as required to process the project through the City of Huntington Beach for review of the proposed work by the City of Huntington Beach Fire Department; Prepare site plan and other deliverables, as needed, and process plan check and obtain permit for construction. Contractor shall provide OC San with 30 days advanced notice of submittal and shall document the plan checking and inspection fee amount. OC San will pay for these City fees.
- B. Submittals General: The Contractor shall provide fabrication drawings, product data sheets, and other submittals and procedures for review and approval by OC San for all components and parts prior to fabrication or procurement. Contractor shall group submittals in sets to maximize efficiency. Provide submittals in digital, PDF format that is high resolution (1200 dpi or higher). Ensure all non-applicable data and optional functions that are not being provided are deleted or clearly crossed out. OC San will return submittals to the Contractor within twenty (20) working days. Contractor shall revise submittals as directed and resubmit as necessary. Contractor shall ensure submittal process is completed on a timeline that ensures completion of the project per the contract documents. Submit detailed product data sheets of all valves and piping and other materials. Provide shop drawings for all valving, piping, connection flanges, instrumentation, and electrical components, including connection diagrams for all control valves. Provide a process flow schematic showing valves and instrumentation. Provide shop drawing of temporary trailer mounted tank that shows all functions, all components, dimensions of trailer and connection points to liquid and vapor sides.
- C. Submittals – Tank: Provide detailed, to scale fabrication drawings of the tank that includes dimensions, weld details, all tank penetrations, insulation details, and

including bill of materials. Bill of materials shall show materials of construction and coating and lining details. Submit steel metallurgical certifications for tank and certification that codes and standards are being met. Included calculations for tank design showing regulations are being met. Include calculations of anchor bolts. Shop drawing must bear the stamp of professional engineer licensed in the State of California. See further requirements for anchor bolts herein. Submit certifications specified herein. Submit U Certification prior to tank being delivered to project site.

- D. Equipment Service Manuals (ESM): After acceptance of all product and shop drawing submittals Contractor shall submit a draft ESM for review and approval covering the tank and all mechanical, electrical and instrumentation devices. Include accepted fabrication drawings. Include detailed bill of materials and to-scale drawings with dimensions of tanks and appurtenances. Draft ESM shall be submitted 30 working days prior to the start of any field work for OC San review and approval. The Contractor shall revise, replace, remove and/or add documents to correct deficiencies and resubmit Final ESM prior to starting Phase 1 – PRE-ORT. Revision to Final ESM may include changes necessary to reflect “as-built” conditions. ESM shall be provided in digital, PDF format that is high resolution acceptable to OC San. Ensure all non-applicable data and optional functions that are not being provided are deleted or clearly crossed out. ESM shall include data sheets, warehouse spare equipment list, approved shop drawing submittal, installation, operation, and maintenance manuals including standard operating procedure for tank filling, supplemental drawings and instructions, and as-built information. Installation, operation, and maintenance manual section of ESM shall include recommendations for installation, adjustment, calibration and troubleshooting, step by step equipment specific procedures for starting, operating, and stopping equipment, preventative maintenance procedures, overhaul instructions, drawings, complete parts lists and recommended spare parts, parts ordering information and special tools list.

- 2.2.4 TANK DEMOLITION. Before demolition of Tank B, the Contractor shall isolate Tank B from the existing system in a safe manner that assures the uninterrupted operation of Tank A and the main vaporizers. See P&ID drawings in Appendix 3 for valve and piping configuration. As part of this isolation the Contractor shall replace existing valves that connect Tank B to the system (see Appendix 3) and a 3-way valve near the main vaporizers. Tank A shall be protected in place and shall remain in service at all times except when replacing valves. Shutdown of Tank A shall follow shutdown requirements.
- 2.2.5 TEMPORARY LOX STORAGE TANK. Whenever the Contractor’s plan requires taking Tank A out of operation, a temporary LOX storage tank and supply line shall be provided and connected to the system. OC San has an existing 9,000 gallon temporary LOX trailer on-site. Contractor to provide a second 9,000 gallon temporary LOX trailer as backup whenever Tank A is out of service. The Contractor provided temporary trailer mounted tank shall include all pipes, valves, and special appurtenances required to connect to both the vapor and liquid connections of OC San’s existing trailer mounted tank. Before a shutdown of Tank A can be started, the Contractor’s temporary trailer mounted tank shall be connected and full of LOX and tested in operation for at least two hours to OC San satisfaction.
- 2.2.6 TANK FOUNDATION ANCHOR BOLTS. The existing concrete tank foundation shall be re-used. Refer to Appendix 6.1 and 6.2 for existing tank foundation design drawings

and 2012 geotechnical report. Existing anchor bolts are 1-1/4-inch diameter carbon steel with paint coating and embedded 20-inches into the concrete foundation per existing drawings. Based on recent limited visual inspection of the anchor bolts, there is varying degrees of corrosion, some anchor bolt nuts do not have a full grip on the bolt threads due to shimming plates, and the condition of the anchor bolts below the anchor nut is not visible. The Contractor shall remove all existing tank anchor bolts to $\frac{3}{4}$ inch below concrete and repair with high strength non-shrink grout (Sika or equal). The Contractor shall install new anchor bolts for the tank into the existing concrete foundation. The Contractor shall hire a structural engineer to design new post installed anchor bolts. Submit anchor bolt calculations prepared by a Structural Engineer licensed in the State of California. Calculations shall indicate minimum distance of bolts from each other, from existing bolts, and from edges of existing concrete. Calculations and drawings shall show bolt diameter, embedment length, and material of construction. Design shall include product data sheet of adhesive system to be used with installation manual.

- 2.2.7 LIQUID OXYGEN STORAGE TANK. Provide new liquid oxygen tank to match existing tank in accordance with Appendix 1 (Design Requirements) and other requirements and Appendices. Comply with reference standards and design codes. Provide all labor and materials and tasks to deliver a complete operating system. Provide all the same functions as the existing tanks and systems have and as specified. Unless recommended otherwise by the manufacturer, Tank B shall be delivered to site with 15 to 25 psi nitrogen gas fill. Once the tank is installed and all piping connections are completed, the Contractor shall evacuate (purge) the nitrogen and replace it with oxygen gas at similar pressure. When tank installation is complete, and the system is ready, liquid oxygen shall be loaded for actual operational readiness (provide recommended level in tank for initial testing). OC San will purchase and deliver the liquid oxygen needed for Tank B testing and commissioning and for Plant operations. The Contractor is responsible to coordinate with OC San in advance to schedule the delivery of liquid oxygen. The Contractor shall purchase and deliver whatever LOX is necessary for the testing and use of the Contractor's trailer mounted tank.
- 2.2.8 TANK APPURTENANCES. Provide new piping, control valves, shut-off valves, 3-way vaporizer valve assembly (that includes new actuator and new control panel), pipe supports, insulation and jacketing, recirculation vaporizer, and other items indicated in Appendices 1 through 5 and as per Contractor's approved design. Piping shall be as required to reconnect to existing systems. Piping and valving shall be replaced with the same size, type, function, and material of construction as the existing piping. All metallic components and miscellaneous metals shall be 316 stainless steel unless otherwise specified. Connections to new Tank B shall be with flanges. Minimize the amount of welding required in the field. Piping must be purged with nitrogen prior to welding. Pickling and passivation shall be completed on all shop, factory, and field welds. Custom flanges with elbows and short pipe links can be pre-made and field attached to existing manifold for Tank B. Contractor shall replace all instrumentation and piping as shown in P&ID drawings in Appendix 3. All existing proprietary monitors, controllers, and remote notification devices associated with Tank B shall be replaced with new, providing equivalent or richer functionalities (coordinate with LOX supplier).
- 2.2.9 SITE WORK: Sitework shall include removal of existing guard posts and fencing as well as the installation of new guard posts and fencing. Complete other site work as shown on the drawings (Appendix 2).

2.2.10 FACTORY TESTING

The Contractor shall conduct factory testing to comply with applicable standards and required certifications prior to shipping of the tank. Prior to factory testing, submit factory test plan indicating detailed procedures, proposed test pressures, and acceptance criteria. Submit results of factory testing and required certification for approval prior to shipping to jobsite.

- A. The inner vessel shall be tested, inspected, and stamped in accordance with the ASME Pressure Vessel Code, Section VIII, Division 1 and shall be registered with the National Board of Boiler & Pressure Vessel Inspectors. Provide U Certification for new tank.
- B. All longitudinal and circumferential welds shall be examined ultrasonically or radiographically and shown to be acceptable in compliance with the requirements of ASME Section VIII, Division 1. All tank welds will be inspected by third party inspector before delivery of Tank B to Plant 2. Inspection report shall be submitted to OC San.
- C. The inner vessel shall be pressure tested in compliance with the requirements of ASME Section VIII, Division 1.

2.2.11 ELECTRICAL AND INSTRUMENTATION. Connect new electrical equipment, control valves, 3-way valve vaporizer actuator and control panel, and instrumentation to existing systems. Replace all conduits, flex conduits, and wiring from termination point to termination point so that there will be no spliced wiring. Provide additional conduit, supports, and equipment / instrument stands as necessary for a finished installation that is equal or better than existing installation. Provide all components required to reconnect new items to existing systems. Supply and replace in kind all relief valves, temperature elements, pressure gauges as identified in SOW Appendices and as necessary to provide a complete operational system.

2.2.12 ELECTRICAL AND INSTRUMENTATION TESTING: All new instruments shall be tested, and calibrated, prior to install in accordance with latest applicable ISA specifications and Scope of Work Appendices. Equipment tested may include some existing items to ensure a complete system test is accomplished. All new instruments, actuators, pressure gauges and/or transmitters shall be loop checked and commissioned to provide complete working system. Contractor to perform loop checks of all above systems and OC San to witness the checks.

2.2.13 TESTING AND COMMISSIONING. Contractor shall provide field testing and commissioning in accordance with Appendix 5 – Testing and Commissioning Requirements.

2.2.14 TRAINING. Provide training as specified. Provide a total of 16 hours of training in accordance with the table shown below. Training shall be for the new LOX storage tank and associated equipment, valves, and instruments.

- A. Training shall cover the following:
 - i. Equipment location and operational overview, including purpose and plant function of equipment.
 - ii. Review catalog cut sheets, parts list, drawings, and all components of

- approved submittals and operation manuals. Show how to use spare parts, if any, and how to order parts.
- iii. Installation of specific equipment, identifying piping and flow options, valves and their purpose, and instrumentation including location of primary element and location of instrument readout.
 - iv. Review safety references and discuss proper precautions and safety procedures around equipment and process facilities, including applicable fire safety and fire codes.
 - v. Liquid oxygen/gaseous oxygen regulations: Regulations pertaining to transport, storage, and handling of liquid and gaseous oxygen.
 - vi. All modes of operation and procedures for startup, shutdown, tank filling, normal operation, and emergency operating procedures including discussion of system integration and electrical interlocks, if any.
 - vii. Demonstrate the unit and perform standard operating procedures, rounds checks, startup and shutdown procedures including isolation for maintenance work and/or long term non-use.
 - viii. Operations troubleshooting procedures.
 - ix. Preventative maintenance.
 - x. Corrective maintenance.
 - xi. Review ESM
 - xii. Answer questions.
- B. Submit proposed training schedule and lesson plans, including trainer qualifications, to OC San two (2) months prior to training. At least one (1) week prior to training session submit training manuals, handouts, visual aids, and reference material to OC San. OC San will not schedule or allow training until all items are reviewed and accepted by OC San. One (1) week following training session provide one (1) complete set of lesson plans, training manuals, handouts, visual aids, and reference material. All documents shall be submitted in electronic format acceptable to OC San. Submit five hard (5) copies: three (3) copies will be retained by OC San and two copies will be returned to the Contractor.
- C. Training schedule shall be in accordance with the following table.

<u>Session</u>	<u>Audience</u>	<u>Duration, hrs</u>	<u>Day and Time</u>
1	Operations	2	Sun-Wed Nights
2	Operations	2	Sun-Wed Days
3	Operations	2	Mon-Thur Nights
4	Operations	2	Mon-Thur Days
5	Maintenance	2	Sun-Wed Nights
6	Maintenance	2	Sun-Wed Days
7	Maintenance	2	Mon-Thur Nights
8	Maintenance	2	Mon-Thur Days
Total:		16	

3. CONTRACTOR RESPONSIBILITY

3.1 GENERAL

As part of the Contract and Scope of Work, the Contractor shall perform the following tasks and provide OC San with the following items:

- A. Contractor shall complete the Scope of Work as described and provide supply all parts, tools

and equipment required to complete the Scope of Work.

- B. Contractor is responsible to provide all materials and/or equipment, and other work to provide a complete operating system, and as specified herein.
- C. Provide components described in Appendices 1-5. All components, parts or equipment found defective during testing and commissioning shall be replaced or repaired by the Contractor, as determined by OC San.
- D. Contractor shall review and comply with all applicable requirements of OC San Contractor Safety Standards, latest version.
- E. Contractor is responsible to provide all consumable supplies needed for testing and commissioning, including transportation, testing, safety equipment and personnel protection equipment except as noted. OC San will provide the liquid oxygen.
- F. Contractor shall be solely responsible for installing and maintaining all items in accordance with the manufacturer instructions until turnover of the work to OC San at the time of Final Completion.
- G. Contractor shall be responsible for the repair or replacement in kind of any item damaged by Contractor or Contractor's sub-contractor without any cost or schedule impact to OC San until turnover of the Work to OC San at the time of Final Completion. Repairs shall be completed prior to Final Completion.
- H. Contractor is responsible to provide all packaging and shipping for transportation of parts and materials and equipment to and from the job site to ensure products and materials arrive at the site undamaged.
- I. Contractor shall take measurements and record all test data during testing and commissioning and shall provide these measurements and data in a report to OC San.
- J. Contractor shall provide accurate as-built record drawings by marking up drawings provided in Appendices 2, 3, and 6, by providing additional drawings as needed, and by completing the EID provided in Appendix 4. Complete these items prior to testing designated as ORT.
- K. Invoicing. Contractor may invoice monthly or when certain milestones are met. However, invoices shall not be submitted more than once per month. Submit project schedule updates with each invoice along with a written narrative of project status.

3.2 PROJECT SUPERVISION

At all times during the progress of the Work, Contractor shall assign a resident-superintendent who has at least 5 years of experience supervising municipal construction projects. The Superintendent shall not be replaced without approval by Owner and only under extraordinary circumstances. Superintendent shall be on site during all work. Contractor shall also designate, in writing, a representative, hereinafter referred to as Project Manager, assigned to the Project on a full-time basis during execution of the Work who shall have the authority to act on behalf of Contractor, including executing the orders or directions of the Owner without delay. This Superintendent and/or Project Manager shall have full authority to promptly supply products, tools, plant equipment, and labor as may be required to diligently prosecute the Work. The Project Manager from the Contractor shall not be changed without approval from OC San.

3.3 RIGGING, DISASSEMBLY, REMOVAL, AND INSTALLATION

- A. Contractor shall provide all equipment required for rigging, disassembly, removal of existing Tank B, and the installation of new Tank B. Follow requirements of OC San Contractor Safety Standards, latest version, and SOP-303 Crane Safety Program.
- B. The Contractor shall provide trained staff and all materials necessary to remove the existing tank and install the new tank. Avoid lifting equipment over LOX Tank A.
- C. The Contractor shall provide all cranes, equipment, and associated tools required for the Work. No OC San equipment is available to the Contractor. All tank lifts are considered Critical Lifts.

3.4 TRANSPORTATION

- A. The Contractor shall provide sufficient supports and bracing for the tank and components against motion/physical shock/impacts during shipping and transport over local streets, major interstate highways, and oceanic transport. The Contractor shall provide full protection against all-weather elements or events.
- B. Contractor assumes full responsibility and costs for all shipping, transportation, transportation, fees, duties and tariffs, scheduling, packing, handling, insurance, and other services associated with delivery of all equipment and goods deemed necessary under this Contract.
- C. The Contractor shall be liable for any damage that occurs during any transport of the equipment.
- D. Follow all State and Local laws regarding transportation of the demolished tank.

3.5 TANK SETTING AND INSTALLATION

After transporting components to the OC San Plant No. 2 LOX facility, the Contractor shall install the tank on its original concrete foundation and anchor the tank to the foundation while maintaining the proper centerline elevation relative to the existing Tank A. The Contractor shall install all piping and connections to the existing piping, and install new valves, instruments, wiring, and appurtenances per Equipment Service Manual, and as required for a complete system. Provide documentation by licensed surveyor that indicates the elevations of Tank A and new Tank B centerline and outlet pipe.

3.6 QUALITY ASSURANCE AND QUALITY CONTROL

Contractor and its personnel assigned to this Contract shall have adequate direct experience for this work, with direct experience in tank design, fabrication, and installation of liquid oxygen storage tanks. Any personnel substitutions after award shall only be done with advanced written approval from OC San.

Tank manufacture shall be ISO 9001 certified. The Contractor shall perform all work in accordance with approved written Quality Control Plan. The Contractor shall submit their Quality Control Plan to OC San for approval before the work begins. The Quality Control Plan shall include a description of the Contractor's procedures for calibrating test equipment, establishing work procedures, maintaining compliance to work procedures, monitoring quality of work, and training of staff. The

Contractor's procedures for taking and recording data, organization and retention of records, and transmittal to OC San for review and acceptance shall be included. Include all relevant ISO 9001 procedures and certifications with the Quality Control Plan.

4. PROJECT SCHEDULE AND WORKPLAN

- A. Contractor shall provide project baseline schedule within 14 days of the Notice to Proceed (NTP) and provide weekly updated 3-week look ahead schedules when working in the field. Provide monthly updates of the project schedule. Project schedules shall be prepared using schedule software (P6 or MS Project) and shall be a detailed Critical Path Method (CPM) schedule. Show critical path on all submittals. The purpose of the project schedule shall be to ensure adequate planning and timely execution of the work by the Contractor, facilitate coordination and interfacing of the Contractor's work with others as needed, and establish a schedule to which subsequent periodic schedule updates will be compared to determine overall progress and performance toward satisfactory completion of the work.
- B. The work activities comprising the project schedule shall be of sufficient detail to assure adequate planning and execution of the work such that, in the judgment of OC San, it provides an appropriate basis for predicting, monitoring, evaluating, and recording the progress of the work. The project schedule shall be detailed and show critical path activities, activity duration, predecessors and successors, and start and finish dates.
- C. The project schedule shall contain the following milestones: Notice to Proceed; mobilization; design; fabrication; construction start; testing and commissioning, specified contract milestones as identified in the RFP; substantial completion; and final completion.
- D. In addition to milestones, the project schedule shall show at a minimum the following tasks: field verification, tank design, submittal preparation and review, factory test, fabrication, material and equipment deliveries, installation, all connections to existing plant systems and equipment including interruptions, shutdowns, LOTO, and training.
- E. OC San may require the Contractor, at any time during the work, to develop a more detailed project schedule to clearly illustrate the effort needed to complete a specific area or task.
- F. Provide a written narrative of the work plan for the project that includes all phases of the work, all milestones shown on the baseline schedule, all deliveries, all shut-downs, all field assessments, all crane lifts with detailed description of work tasks.

5. NOT USED

6. APPENDICES

The following appendices are part of this scope of work. Appendices 1 through 5 are contractual. Appendix 6.1 through 6.8 are for reference only.

- Appendix 1 – Design Requirements
 - Appendix 1.1 – LOX Storage Tank Design Criteria
 - Appendix 1.2 – Instrument Sheets
- Appendix 2 – Drawings
- Appendix 3 – P&IDs and Loop Diagrams
- Appendix 4 – Equipment and Instrument Database (EID)
- Appendix 5 – Testing and Commissioning Requirements

Appendix 6 – Reference Documents

Appendix 6.1 – Air Products Tank Foundation Design and Details

Appendix 6.2 – Coleman Geotechnical Evaluation

Appendix 6.3 – Project P2-23-2 – Oxygen Generation and Storage Facilities Drawings

Appendix 6.4 – Project SP-129 – Oxygen Plant Demolition at Plant 2 Drawings

Appendix 6.5 – Original LOX Storage Tank Drawings Submittal

Appendix 6.6 – 2012 Tank Pressure Test Record Sheets

Appendix 6.7 – Photographs

Appendix 6.8 – SAT