



354-RFB-25-17

REQUEST FOR BIDS

for

Liquid Oxygen System and Supply

To be opened 1:00 PM ET, Tuesday, June 24, 2025

Pursuant to General Statutes of North Carolina, as amended, sealed bids, subject to the conditions and specifications herein, are invited for furnishing the following apparatus, supplies, materials, and equipment. All bids will be received by the Town of Cary Purchasing Division electronically until the date and time stated above, at which time the sealed bids will be publicly opened virtually and read.

BY: Kathryn McMillan, Assistant Manager of Procurement & Contracts

DATE: May 23, 2025

POSITIVELY NO BIDS CONSIDERED UNLESS SUBMITTED ON THIS DOCUMENT

Please provide pricing subtotals and grand total for the option (or options) you are submitting for evaluation.

Description	Price
Lease of Liquid Oxygen System Equipment to include 9,000-gallon tanks, piping, controls, etc. as described in the Specifications for a five (5) year period.	\$ _____ /year
Liquid Oxygen (Annual estimate for 1 st year is 4 million pounds)	\$ _____ /ccf
Installation Cost	
GRAND TOTAL (ALL GOODS, SHIPPING, & FEES)	

ESTIMATED EQUIPMENT DELIVERY	_____	DAYS
MAINTENANCE RESPONSE TIME	_____	DAYS

Do the products submitted for bid meet the exact specifications listed herein? YES NO

This company is a certified Historically Underutilized Business (HUB) by the North Carolina Department of Administration HUB Office. YES NO

COMPANY: _____ DATE: _____

AUTHORIZED SIGNATURE: _____ TITLE: _____

DATE: _____

NOTICE TO BIDDERS: Do not include taxes in your bid proposal pricing. Any and all taxes imposed upon any article on which you are bidding are only to be shown as separate line items on invoices, and in no case are taxes to be included with your bid price. Failure to comply with these conditions will be considered grounds for rejection.

In compliance with the above request for bids and subject to all the conditions thereof, the undersigned offers and agrees, if this bid be accepted within _____ days from the date of the opening, to furnish any or all of the items upon which prices are quoted at the price set opposite each item within _____ days after receipt of order, unless otherwise specified.

COMPANY: _____ ADDRESS: _____

TOWN: _____ STATE: _____ ZIP CODE: _____

AUTHORIZED SIGNATURE: _____ **TITLE:** _____

NAME PRINTED OR TYPED: _____

CONTACT NAME (if different than above): _____

TELEPHONE NO.: _____ EMAIL: _____

BIDDER'S CHECKLIST

- Be aware of the virtual bid opening date and time as indicated on the first page of this proposal.
- You must submit **bids in electronic format via eVP**. No hard copy bids will be accepted.
- All signatures must be by a company officer or agent who is authorized to enter and sign bid documents.
- Have you read and understood the "Terms and Conditions" and the "Instructions to Bidders" for submitting a bid to the Town?
- Have you read and do you completely understand all the specifications of this bid proposal?
- If an addendum to the specifications was issued, has it been returned with this bid proposal (indicating acceptance of the information contained within)? Failure to do so may result in your submittal being deemed unresponsive.
- Have you enclosed statements explaining any exceptions made to the specifications? (If applicable)
- Have you enclosed your Affidavit of compliance with all specifications?
- Have you enclosed your letter of product commitment?
- Have you enclosed the MSDS and product specification sheet?

- Have you enclosed your reference list (Attachment 1)?
- Have you enclosed a transition plan for the Liquid Oxygen System?

INSTRUCTIONS TO BIDDERS

1. **PURPOSE:**

The purpose of this document is to provide general and specific information for the use by suppliers in submitting a bid to supply the Town of Cary with apparatus, supplies, material and equipment, and/or services listed above. All bids and contracts are governed by Town policy, and /or by Section 143-129 of the North Carolina General Statutes.

2. **BID SCHEDULE:**

Listed below are the dates and times by which stated actions must be taken or completed. The Town may determine, in its sole discretion, that it is necessary to change any of these dates and times. All listed times are Eastern standard times.

Action	Time	Date
Bid issued	----	Friday, May 23, 2025
Pre-Bid Meeting	2:00 PM ET	Wednesday, June 4, 2025
Deadline for Questions & Approved Equals	5:00 PM ET	Monday, June 9, 2025
Town Responses to Questions		Wednesday, June 11, 2025
Bids Due	1:00 PM ET	Tuesday, June 24, 2025
Anticipated Award	----	July 2025

3. **BIDDER QUESTIONS:**

The Town is not liable for interpretations/misinterpretations or other errors or omissions made by the Bidder in responding to this bid. The Bidder shall examine this bid to determine if the Town's requirements and terms and conditions are clearly stated. If, after examination of the various requirements and terms and conditions of this bid, the Bidder believes there are any requirements or terms and conditions which remain unclear or which restrict competition, the Bidder may request, in writing, that the Town clarify the requirement(s) and terms(s) and condition(s) specified by the Bidder. The Bidder must provide the Section(s), Subsection(s), Paragraph(s), and page number(s) that identify the requirements or conditions questioned by the Bidder.

Requests for clarification, technical questions and approval of alternate products to this bid must be received by the Town no later than the date shown above in Section 2, entitled "Bid Schedule", under *Deadline for Questions*. The Bidders' failure to request clarification and submit questions by the date in the bid schedule above shall be considered to constitute the Bidders' acceptance of all Town's requirements and terms and conditions. The Town shall issue addenda reflecting questions and answers to this bid, if any, and shall be posted to the eVP website at [North Carolina electronic Vendor Portal](#).

4. **BID CONTACT:**

Any and all questions, concerns, request for additional information, and alternate product considerations shall be directed to the following Town of Cary Staff:

Betsy Drake
Betsy.Drake@carync.gov

5. **HOW TO PREPARE BID PROPOSALS:**

Bidders are encouraged to carefully review all provisions and attachments of this document prior to completion. Each bid constitutes an offer and may not be withdrawn except as provided herein. Also, prices are to remain firm for the period stated herein.

- a) **PROPOSAL FORM:** Submit prices and offers on the **BID PROPOSAL FORM**(s) provided herein. All bid proposals must be submitted and signed by the supplier or their authorized representative with all erasures or corrections initialed and dated by the authorized representative of the proposal.

- i. The bidder shall indicate an approximate delivery date for each line-item detail listed on Attachment 1.
- b) **SIGNATURE**: All bids must be signed by an authorized official of the company on the **Bidders Signature Page**. A bid may be rejected if it shows omissions, alterations of form, additions not called for, conditional bid, or any irregularities.
- c) **TAXES**: Do not include taxes in your bid prices. Taxes must be itemized and added to invoices separately when invoicing the Town. The Town is required to pay sales tax. The Town is exempt from Federal Excise Tax and has a Federal Tax number.
- d) **MINORITY WOMEN BUSINESS ENTERPRISES (MWBE) POLICY**: The Town invites and encourages participation in this procurement process by certified Minority and Women-Owned Business Enterprises (MWBE) in accordance with North Carolina General Statute 143-129.
- e) **SUSTAINABILITY**: As stated in the 2017 Cary Community Plan, the Town has a commitment to promoting green practices that will promote an environmentally safe and desirable community for future generations. As such, we recognize our responsibility to minimize negative impacts on human health and the environment while supporting a diverse, equitable, and vibrant community and economy. The Town recognizes that the types of products and services the Town buys have inherent social, human health, environmental and economic impacts, and asks that all vendors and bidders providing and proposing products and services to the Town, be mindful of the Town's commitment to sustainability and provide and propose products and services that embody this commitment whenever possible.
- f) **NONDISCRIMINATION POLICY**: It is the policy of the Town of Cary to promote the fair treatment of all individuals and provide them freedom from discrimination. No member of a protected class shall be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity administered by Cary, including programs or activities that are funded in whole or in part with State or Federal funds, such as Coronavirus State and Local Fiscal Recovery Funds.

6. **HOW TO SUBMIT BID PROPOSALS**:

- a) Upload a complete set of your bid on the **BID PROPOSAL FORM** provided herein to the NC eVP website at [North Carolina electronic Vendor Portal](#).
- b) **NO PHYSICAL, EMAIL OR FAX BIDS WILL BE ACCEPTED.**

7. **BID OPENING**:

- a) The bid opening shall be held virtually via Webex. The meeting is scheduled for 1:55 PM EST (5 minutes prior to the bid opening). If planning to attend, please join the meeting early in case you have trouble connecting.
- b) All bidders are welcome to attend the bid opening virtually and can be accessed via the following credentials:

Meeting link:

[354-RFB-25-17 Bid Opening](#)

Meeting number:

2339 437 2744

Password:

RSb8gMvqP93

More ways to join

Join by video system

Dial 23394372744@carync.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

+1-408-418-9388 United States Toll

Access code: 2339 437 2744

- c) All bids will be opened and read at the time shown on the enclosed Bid Proposal Form. No official award will be made during the Bid Opening. **LATE BIDS WILL NOT BE OPENED OR ACCEPTED.**
- d) Bidders may not review or request copies of bids at the Bid Opening. A request must be submitted to the purchasing supervisor via email.
- e) If you have difficulty joining or trouble with sound contact Webex and provide them the Meeting number.
- f) Bids will be examined by the Purchasing Supervisor and/or Bid Agent of the using department promptly after the opening and an award made as early as possible. No bids may be withdrawn after bid opening.

8. AWARD OF BID:

- a) Standard of Bid Award Acceptance: The Town reserves the right to reject any or all bids and to waive any irregularities or technicalities in bids received whenever such rejection or waiver is in the best interest of the Town of Cary. The award shall be made to the lowest, responsive, responsible bidder, or bidders, taking into consideration quality, performance and the time specified in the bid for the performance of the contract.
- b) Bid Prices: All items and products proposed in response to this Bid are to be new, in un-used condition unless otherwise noted in the Minimum Specifications. All prices proposed in response to this Bid are to include all transport, freight, fuel surcharges and other fees if applicable and be delivered **FOB destination, freight prepaid and allowed** to the location provided on the Town Purchase Order if not otherwise instructed within the specifications section. All items are to be packaged, and shipped or delivered safely in a protective carton, fully assembled and serviced, ready for use and operation where applicable or otherwise described within the specifications. All supplies, equipment, and apparatus must meet all Federal, State, and Local safety regulations, requirements, and guidelines, such as OSHA, EPA, US DOT, NC-DOT, NFPA, UL, etc., if so regulated.
- c) Order of Precedence: In cases of conflict between sections and provisions within the Bid document, the Order of Precedence will be 1) the Special Conditions section specific to the Bid (if present); 2) the Minimum Specifications section specific to the Bid, 3) the Town of Cary Terms and Conditions; and 4) the Instructions to Bidders section of the Bid document.
- d) Payment Terms: Payment terms of Net 30 days from the date of receipt of correct invoice, or upon acceptance of goods whichever is later, will apply to all invoices. Payment term discounts will be allowed for prompt payments but will not be a consideration for award.
- e) Bid Award Approval: The Town Manager has delegated authority from the Town Council to award bids for supplies, equipment, and apparatus greater than \$90,000. Bids will be approved and awarded by the Town Manager or designee upon the recommendation by the Procurement Department.

9. OBJECTION TO THE SPECIFICATIONS:

It is not the intent of the bid specifications to exclude or limit competition or favor any supplier. If there is an objection to any of the specifications or requirements listed herein, the bidder must notify the Town of Cary Purchasing Supervisor, in writing, stating and listing the specifications and objections, no later than five (5) working days prior to the bid opening date. If a pre-bid meeting has been scheduled, any objections must be presented in writing at that time. The objections stated must pertain both to form and substance of the bid document. Failure to object in accordance with the above procedure shall constitute a waiver on the part of the bidder to protest the solicitation. All concerns, questions, clarifications, or other correspondence must be directed only to the Town of Cary Assistant Manager of Purchasing & Contracts. Information obtained from other sources will not be considered in the evaluation and award of this bid.

10. ERRORS IN BIDS:

Bidders or their authorized representatives are expected to understand the conditions, requirements and specifications before submitting bids. Failure to do so will be at the bidders' own risk. In case of an error in the extension of prices on the bid, the unit price shall govern.

11. BID OPTIONS:

The Town reserves the right to request pricing on optional equipment or additional items along with the pricing for the main or primary product or items when applicable. At the discretion of the Town, some or all the options requested may or may not be added and purchased based upon necessity and the availability of budgeted funds. The Bid Award will be made to the lowest, responsive, responsible bidder for the main or primary product or items listed on the Bid Proposal Form. Pricing for any additional options will be requested in a separate section of the bid and will not be included in the determination of the Bid Award.

12. QUANTITIES:

The Town of Cary reserves the right to adjust quantities as needed, and to add additional items and/or products as needed, as determined to be in the best interest of the Town. The quantities stated herein, for term or multi-year contracts are estimated, and may change to be more or less over the term of the contract.

13. PRICE ADJUSTMENTS:

For Bids with fixed price contract periods, it is the Town's intent to contract the lease of the Liquid Oxygen System at a fixed price for a period of five (5) years, with an option to extend the contract for one (1) additional five (5) year period. For the liquid oxygen supply, the price shall be fixed for a period of one (1) year and may be adjusted annually per the terms of this agreement throughout the lease period of the Liquid Oxygen System. The price proposed by the Bidder is to remain fixed for the first sixty (60) day period of the contract. Prices for additional extension term periods may be subject to a price increase or decrease if the price adjustment mirrors and reflects a previous industry-wide adjustment for the product or item(s) specified in the Bid.

Any price increase or decrease will be adjusted to the latest yearly percentage increase in the All-Urban Producer Price Index (PPI) as published by the Bureau of Labor Statistics, U.S. Dept. of Labor, or other appropriate agreed upon price index. The amount of the increase or decrease will be determined by the difference between the latest price index available ninety (90) days prior to the end of the current contract year in effect, and the price index for the same month one year prior.

Any requested price increase must be fully documented and submitted to the Procurement Department at least sixty (60) days prior to the Bid contract anniversary date. Any approved price adjustment (increase or decrease) will then become effective upon the anniversary date of the contract at the start of the next term period.

The Town reserves the right to accept or to refuse any documented price adjustment submitted by the vendor/contractor for any reason as determined to be in the best interest of the Town. In the event the Town does not accept the proposed price adjustment for the extended term, the Bid contract will not be renewed, and the Town will rebid the product or item(s). Any Bid contract extension is subject to the continuation of need and usage by the Town and the appropriation of funds.

14. CONTRACT EXTENSIONS:

The Town reserves the right to extend all bid contracts for up to one (1) additional five (5) year period, if agreed upon in writing by the contracted vendor. The contract extension(s) may be for additional quantities or for an additional time period as agreed.

15. TRADE SECRETS:

This Bid document and all Bidders' responses and proposals received are considered public information, except for trade secrets specifically identified in writing by the Bidder, which will be handled according to State Statute or other laws. Any section of the bidder's response package that is deemed to be a trade secret by the bidder shall be submitted in an envelope clearly marked "**TRADE SECRET INFORMATION- DO NOT DISCLOSE.**" The Town shall make a good faith effort to protect such confidential information.

16. BID TABULATIONS:

Bidders wishing to obtain a bid tabulation prior to the award of the bid may view and download tabulations from the North Carolina electronic Vendor Portal (eVP) website at [eVP](#). Tabulations should be posted within 48 hours (two workdays) after the public bid opening. From the Town's homepage, select the following in order to view bid tabulations: Business and Development, Bids and Proposals, select the link to the North Carolina Interactive Purchasing System, Search Bid Number, enter the desired bid number, and select Search. Bid tabulations only reflect the bids as read at the time of the bid opening and should not be considered an award. It is the Town's policy to furnish bid tabulations to all bidders.

17. INVOICING:

Payment for the lease shall be made on an annual basis for a 12-month period, billed annually. Invoicing for liquid oxygen supply shall be made after each delivery. For prompt payment all invoices must include an accurate Purchase Order Number. Please submit invoices to your Town of Cary Contract Administrator. Invoices not submitted following these instructions will result in delayed payment. The

18. TERMS AND CONDITIONS:

Acceptance of the Town's Purchase Order includes acceptance of all applicable Terms and Conditions. The Town's Purchase Order Terms & Conditions are provided below for your information.

**TOWN OF CARY
PURCHASE ORDER TERMS AND CONDITIONS**

By acceptance of the Purchase Order to which these terms are attached ("Purchase Order"), the vendor or Seller, ("Seller"), declares that the goods or services ("Goods and/or Services") Seller is to provide pursuant to the Purchase Order shall be provided according to the following terms and conditions:

1. Purchase Order Number: The purchase order number must appear on all invoices, packing slips, correspondence, and bills of lading. Cary shall not be responsible for Goods and/or Services provided without a purchase order.
2. Invoices: Each purchase order shall be invoiced separately. Invoices for partial shipments will be accepted and final invoices shall indicate completion of order. The Purchase Order Number shall be referenced on all invoices.
3. Sales Tax: Cary's purchase orders do not show North Carolina (NC) sales tax; however, Cary is not tax exempt and does pay NC sales tax. NC sales tax must be listed separately on the invoice. Cary does not pay Federal Excise Tax.
4. Risk of Loss: The risk of loss and damage to Goods which are the subject of this order shall remain with the Seller until Goods are delivered to the destination set out in the order and accepted by Cary.
5. Quantity: The specific quantity ordered must be delivered in full and will not be changed without Cary's consent. Any unauthorized quantity is subject to rejection and return at Seller's expense.
6. Freight And Packaging: Price quotations shall include freight, transportation, shipping, handling and similar charges. Collect freight shipments shall be refused. Seller shall absorb any increase in rates becoming effective after the date of Purchase Order. Seller agrees to assume and pay all extra expense occurring on account of improper packaging.
7. Failure to Deliver. If Seller fails to provide Goods and/or perform Services as and when specified, Cary reserves the right to cancel the order, or any part thereof, without prejudice to its other rights, and Cary may return part or all of any shipment so made and may charge Seller with any loss or expense sustained as a result of such failure to provide.
8. Cash Discounts: All cash discounts shall be effective from the date of actual receipt of a correct and approved invoice by Cary.
9. Responsibilities of Seller. Seller represents and warrants that it is fully qualified, skilled, and capable of providing the Goods and/or Services in a fully competent, professional, and timely manner; shall provide Goods and/or Services in accordance with industry standards; shall use best efforts and exercise reasonable care and diligence in providing Goods and/or Services and shall act in the best interest of Cary; perform other actions required to remain in good standing with the North Carolina Secretary of State; and possesses all necessary qualifications, licenses, and certifications. Seller shall be responsible for all errors, omissions, or mistakes in providing Goods and/or Services and shall correct at no additional cost to Cary any and all errors, omissions, or mistakes.
10. Insurance: If Seller is to provide Services of any kind pursuant to Purchase Order, Seller shall maintain at its own expense: (a) Commercial General Liability Insurance in an amount not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate for bodily injury, property damage, and personal advertising and injury; Cary shall be named as additional insured, and a waiver of subrogation shall be included. (b) Professional Liability insurance in an amount not less than \$1,000,000 per claim - if providing professional services; (c) Workers Compensation Insurance as required by the general statutes of the State of North Carolina or as required per state law and Employer's Liability Insurance not less than \$500,000 each accident for bodily injury by accident, \$500,000 each employee for bodily injury by disease, and \$500,000 policy limit. A waiver of subrogation shall be included; (d) Commercial Automobile Insurance applicable to bodily injury and property damage, covering all owned, non-owned, and hired vehicles, in an amount not less than \$1,000,000 combined single limit as applicable. Cary shall be named

as additional insured, and a waiver of subrogation shall be included; (e) Umbrella/Excess Liability Insurance in an amount not less than \$1,000,000 per occurrence and \$1,000,000 in the aggregate. Cary shall be named as additional insured, and a waiver of subrogation shall be included, or the policy shall state it is follow form. Certificates of Insurance shall be furnished prior to the commencement of Services.

11. State and Federal Funds. Seller shall work in good faith with Cary to meet requirements imposed by the federal or state government or other funding entity if grants are used to fund any portion of a purchase order. If the source of funds is Federal funds, the following Federal provisions apply pursuant to 2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II (as applicable), unless a more stringent State or local law or regulation is applicable: Equal Employment Opportunity (41 C.F.R. Part 60); Davis-Bacon Act (40 U.S.C. 3141-3148); Copeland "Anti-Kickback" Act (40 U.S.C. 3145); Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708); Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387); Debarment and Suspension (Executive Orders 12549 and 12689); Byrd Anti-Lobbying Amendment (31 U.S.C. 1352); Procurement of Recovered Materials (2 C.F.R. § 200.322); Record Retention Requirements (2 CFR § 200.324); Prohibition on Certain Telecommunications and Video Surveillance Goods and/or Services or Equipment (2 C.F.R § 200.216); Domestic Preferences for Procurements (2 C.F.R § 200.323); Employment Eligibility Verification (FAR 52.222-54); and Whistleblower protections (41 U.S.C. 265 and 10 U.S.C. 2408). Seller further represents that, prior to accepting any purchase order that is funded by Federal funds, Seller:

- a. Is not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal Government agency and not included in the Excluded Parties List System;
- b. Has not, within the preceding three-years, been convicted of or had a civil judgment rendered against it for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property; and
- c. Is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property.

12. Indemnification.

- a. Indemnification: General. To the fullest extent permitted by applicable laws and regulations, Seller shall indemnify, protect, defend, and hold harmless Cary, its elected officials, officers, employees, agents, and volunteers (collectively, "Cary Indemnitees") from and against any and all claims, costs, civil penalties, fines, losses, liabilities, injuries (including death), demands, damages (including but not limited to all professionals' fees and charges and all court or other dispute resolution costs), actions, causes of action, suits, proceedings, judgments, and expenses, including reasonable attorneys' fees, court costs, and other legal expenses and including, without limitation, those costs incurred at the trial and appellate levels and in any bankruptcy, reorganization, insolvency, or similar proceeding and other legal expenses (collectively and separately, "Claims") by whomsoever brought or alleged, arising out of, resulting from, or in connection with:
 - i. The provision of Goods and/or Services by Seller;
 - ii. Any breach or violation by Seller of any applicable law or regulation; or
- b. Indemnification: Intellectual Property. Seller shall indemnify, protect, defend, and hold harmless Cary Indemnitees from and against any and all Claims arising out of, related to, or resulting from any claim, action or proceeding by a third party alleging that any deliverables or work product created or reduced to practice by or on behalf of Seller in connection with providing the Goods and/or Services, or any use of such deliverables or work product, infringes or misappropriates or otherwise violates any intellectual property right (including, without limitation, any patent,

copyright, trademark, or trade secret) or other proprietary right of any third party.

13. No Consequential or Indirect Damages. Except for Seller's indemnification obligations hereunder or any liability arising out of Seller's negligence, willful misconduct, violation of law, or infringement or misappropriation of intellectual property rights, in no event shall either Party be liable to the other for consequential, indirect, incidental, special, exemplary, punitive or enhanced damages, lost revenues or diminution in value, arising out of, relating to, or in connection with Seller's provision of Goods and/or Services, regardless of whether such damages were foreseeable, whether said Party was advised of the possibility of such damages, and the legal or equitable theory upon which the claim is based.
14. Public Records and Dissemination of Information. Seller acknowledges that records in the custody of Cary are public records and subject to public records requests. Cary may provide copies of such records, including copyrighted records, in response to public record requests.

Seller shall not publicly disseminate any information concerning the provision of Goods and/or Services to Cary without prior written approval from Cary. Any approval given by Cary may be given with certain stipulations, such as Cary participation in the creation of the public product or Cary review and the option to refuse public release of the final product(s) should such product(s) fail to meet Cary's standards and goals. Publicly disseminate means, but is not limited to, electronic, video, audio, photographic, or hard copy materials serving as, in whole or part, advertising, social media posts, sales promotion, professional papers or presentations, news releases, articles, or other media products, and/or Seller's business collateral pieces. Notwithstanding the foregoing, with Cary's written consent, Seller may list Cary as a reference in response to requests for proposal and may identify Cary as a customer in presentations to potential customers. Any permitted use of Cary's trademarked materials (including, without limitation, Cary's logo in its various forms) must be in compliance with the guidelines outlined at <https://brand.carync.gov/>.

15. Documents and Deliverables. If Seller's provision of Goods and/or Services results in the creation of drawings, specifications, plans, surveys, reports, technical memoranda, testing protocol, designs, electronic databases, written materials, work papers, manuals, and other documents or instruments identified as 'Deliverables' herein or which, by their nature, are to be owned by Cary, Cary shall be granted, at no additional cost, ownership of all such Deliverables. Cary is and will be the sole and exclusive owner of all right, title, and interest in and to all Deliverables and associated work product, including all Intellectual Property Rights therein. Seller acknowledges and agrees that any and all work product that may qualify as "work made for hire" as defined in the Copyright Act of 1976 (17 U.S.C. § 101) is hereby deemed "work made for hire" for Cary and all copyrights therein shall automatically and immediately vest in Cary. In the event Seller creates Deliverables or work product that requires a license, Seller will convey with the ownership of Deliverables or work product, a perpetual license required for the operation of the Deliverables or work product.

Seller shall provide all Documents and Deliverables in electronic form to the Cary in read-only MS-Windows compatible format (including either screen readable .pdf or HTML formats). In addition, all drawings shall be CAD generated and shall be provided on electronic media downloadable onto an AutoCAD based system. All Deliverables (draft and final) intended for presentation on Cary's website must be provided in a manner and format compatible, consistent, and in compliance with the U.S. Department of Justice's current accessibility requirements applicable to local government websites and all Cary technology standards, including but not limited to such material must be provided in screen readable PDF or HTML versions, be screen-reader friendly and contain alternate text tags of no more than 34 characters. In the event that Seller notices any errors in electronic data provided to the Cary under this Agreement, Seller shall immediately notify Cary, and if Seller provided such electronic data, Seller shall immediately replace same with correct versions thereof.

16. Independent Seller. Seller is acting as an independent Seller, and not as an employee, partner, or agent of Cary. Seller has no authority to commit, act for or on behalf of Cary, or to bind Cary to any obligation or liability. Seller shall not be eligible for and shall not receive any employee benefits from Cary and shall be solely responsible for the payment of all taxes, FICA, federal and state unemployment insurance contributions, state disability premiums, and all similar taxes and fees relating to the provision of Goods and/or Services by Seller.
17. Nondiscrimination. To the extent permitted by law, neither Party, their officers, employees, Sellers,

agents, successors, or permitted assigns shall discriminate against any member of a protected class as defined by Federal, State, or local law, including Wake County Code of Ordinances Section 34.01.

18. Compliance with Applicable Law; Conduct. In providing Goods and/or Services, Seller and its officers, employees, agents, and subSellers shall comply fully with all applicable Federal and State laws and regulations, including but not limited to Article 2, Chapter 64, of the North Carolina General Statutes regarding verification of work authorization; and laws related to gifts and favors, conflicts of interest and the like, including N.C.G.S. §§ 14-234, 133-1, and 133-32.

Seller's officers, employees, agents, and subSellers who come onto Cary property to provide Goods and/or Services shall comply with the same health and safety requirements that Cary has implemented for its employees through ordinance, policy, procedure, directive of the Cary Manager, or other means, as may be amended or enacted from time to time.

19. No Waiver of Immunity. Nothing in these terms shall be construed to mandate purchase of insurance by Cary pursuant to N.C.G.S. § 160A-485 or to in any way waive Cary's defense of governmental immunity from any cause of action alleged or brought against any Party for any reason if otherwise available as a matter of law.
20. Severability. If any provision of these terms are held as a matter of law to be invalid or unenforceable by a court of competent jurisdiction, the remainder of the terms shall remain enforceable, and such invalid or unenforceable provision shall be enforced by such court to the maximum possible extent, provided that both Cary and Seller preserve the substantial benefits of the terms.
21. Survival. All representations, indemnifications, and other terms and conditions of these terms which by their nature should survive the completion of the provision of Goods and/or Services by Seller shall survive completion of the provision of Goods and/or Services by Seller.
22. Jurisdiction. These terms shall be governed by the substantive provisions of North Carolina law without regard to conflict of laws provisions. The Parties agree that any legal action or proceeding with respect to the provision of Goods and/or Services by Seller shall be brought exclusively in the State courts of Wake County, North Carolina.
23. Performance of Government Functions. Nothing contained herein shall be deemed or construed so as to restrict or inhibit Cary's police powers or regulatory authority.

CONSTRUCTION SERVICES

If the Purchase Order governed by these terms is for the provision of construction Services, Seller shall provide such Services in compliance with the following terms and conditions in addition to the preceding terms and conditions:

1. Seller represents and warrants that it possesses all necessary licenses and certifications including those required by required trades.
2. All Services shall be accomplished so as to minimize inconvenience to Cary.
3. Access as required by Cary shall be maintained by Seller throughout construction.
4. Seller shall keep the work site free from accumulations of waste materials and rubbish caused by Seller and its employees or the Services at the end of each day and, at the completion of the Services, shall remove all rubbish, waste, tools, scaffolding, and surplus materials and shall leave the site "broom clean" or its equivalent. Seller shall provide signs, barricades, and warning devices to ensure safe passage of both vehicular and pedestrian traffic at all times, if applicable.
5. Seller shall make provision for protecting structures and property and surrounding area from damages arising out of or related to performance of the Services and shall fully restore the site and surrounding area in the event of such damages.
6. All damage to the site or to adjacent property shall be repaired or replaced by Seller to the satisfaction of Cary or to any affected adjacent property owner.

7. The Seller shall not permit any tolls, equipment, or premises involved in the performance of the Services to be used in a manner that would endanger its safety, intended performance, or configuration while under construction.
8. Unless a specific warranty is provided for a greater period of time, all Services are warranted and guaranteed to be free of defects in materials, equipment, and workmanship for a period of one (1) year following acceptance of the Services by Cary. Any and all manufacturers' warranties shall be assigned to and provided to Cary at the conclusion of Work.
9. If Services performed are subject to N.C.G.S. § 143-128(f1) and a dispute arises with an amount in controversy that exceeds \$15,000.00, Seller shall participate in the Town's dispute resolution process.

INFORMATION TECHNOLOGY SERVICES

If the Purchase Order governed by these terms is for the provision of information technology Services, Seller shall provide such Services in compliance with the following terms and conditions in addition to the preceding terms and conditions:

1. Seller Warranties. Seller represents and warrants that:
 - a. For the duration Services are being provided, the Services will fully comply all applicable federal, state, and local laws and regulations, that the functionality of the Services will not decrease, and that Seller shall promptly either repair or replace any defective Services at no additional charge to Cary. If Seller is unable to totally cure any defective Service within thirty (30) days after receipt of notice from Cary, Cary shall have the right to immediately terminate the Services by written notice to the Seller and to obtain a full refund of the fees paid in connection with the Services (including but not limited to any implementation, maintenance, and training fees).
 - b. Seller owns all right, title and interest in and to the Services and has full legal right to license all the Intellectual Property Rights necessary to grant any applicable licenses in the Services, providing Services will not violate or constitute a breach of any agreement binding upon Seller, and as of the date on which Seller provides the Services there is no claim or litigation regarding Seller's ownership or the right to license all the Intellectual Property Rights necessary to grant any applicable licenses in the Services.
 - c. Seller's performance and the Services to be provided hereunder shall comply with all applicable rules, regulations related to privacy, confidentiality, consumer protection, electronic mail, and data security, including, as applicable, the Health and Insurance Portability and Accountability Act of 1996 (42 U.S.C. §1320d) ("HIPAA"), the Health Information Technology for Economic and Clinical Health Act of 2009 (42 U.S.C. §17935) ("HITECH Act"), the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) ("ARRA"), if applicable, the California Consumer Privacy Act of 2018 (Cal. Civ. Code. §1798.100 et seq.) ("CCPA") (and as amended from time to time, including the California Privacy Rights Act of 2020, when in effect),(collectively, the "Privacy and Security Laws").
 - d. Seller's Services complies with Section 508 of the Rehabilitation Act of 1973, as amended, with respect to accessibility for individuals with disabilities, if applicable. If Cary receives a complaint or concern regarding the accessibility of the product or service, Seller agrees to promptly responds and resolve such concerns. Seller further agrees to indemnify and hold Cary harmless for any claims arising from the inaccessibility of its product or service.

If the information technology Services being provided involve Seller hosting or accessing Cary data or systems, Seller shall provide such Services in compliance with the following terms and conditions in addition to the preceding terms and conditions:

2. Security Breaches
 - a. If Seller discovers, suspects, or is otherwise made aware of (a) any unauthorized disclosure of, use of, or access to Cary data or systems, or any other compromise of Cary data or systems ("Security Breach"), or (b) any condition that is likely to result in Security Breach, Seller shall promptly report (but in no event more than twenty-four (24) hours following discovery or suspicion) the Security Breach or likely Security Breach to Cary.
 - b. Seller shall mitigate, in a timely manner and to the extent practicable, any harmful effects of any

Security Breach. Seller shall cooperate with Cary in investigating and responding to any Security Breach, including, without limitation, observing any reasonable requests made by Cary to ensure compliance with applicable law, and providing any notices that Cary deems appropriate.

- c. To the extent any Security Breach is attributable to a breach by Seller or Seller personnel, and applicable law requires Cary, or other affected individuals be notified of a security incident involving Cary Data, Cary shall have the exclusive right to determine whether notice will come from Cary or Seller. In any event, the content, timing, and other details of the notice are subject to Cary's approval, in Cary's sole discretion.
 - d. Seller shall bear the costs incurred in complying with its legal obligations relating to the Security Breach, and in addition to any other damages for which Seller may be liable under this Agreement, Seller shall bear the following costs which may be incurred by Cary in responding to the breach, to the extent applicable: (a) the cost of providing notice to affected individuals, government agencies, credit bureaus, and other required entities (which may include, without limitation, print services, postage, and obtaining contact information for affected individuals); (b) the cost of providing affected individuals with credit monitoring services and identity theft mitigation services for a specific period to the extent Cary determines the incident could lead to a compromise of the affected individuals' credit or credit standing or identity theft, or if required by applicable law; (c) the cost of call center support for affected individuals; (d) forensics services; (e) fines imposed by credit card associations, merchant banks or financial account institutions and costs passed on by individual card companies, banks, and other financial institutions; (f) the cost of any other measures required under applicable law; and (g) any other losses for which Seller would be liable under the Agreement.
3. Cary Data Portability. Upon the completion of Sellers provision of Services, Seller will make all Cary data available to Cary for export or download in commercially accessible formats at no cost to Cary. Seller shall not delete or destroy any Cary data in its systems or otherwise in its possession or control, unless and until it has received written acknowledgment from Cary that Cary has exported or downloaded Cary data it requires.

MINIMUM SPECIFICATIONS

1. GENERAL

These specifications are for the provision of Liquid Oxygen (LOX) supply for the Cary/Apex Water Treatment Facility (CAWTF). The LOX System equipment described herein shall be leased for a period of five (5) years with an option to renew the lease for an additional five (5) year period upon mutual agreement. LOX shall be supplied as described herein during the same term as the lease.

- a. Annual Quantity: The quantity supplied will be varied to meet the water facility needs and is estimated to be approximately 3.75 – 4.75 million pounds per year. Quantities listed herein represent the Town's estimated annual requirements for liquid oxygen. The Town reserves the option to purchase more or less than the respective quantity listed herein at the quoted prices.
- b. Bid amounts shall be submitted for the annual lease amount plus the total cost of the estimated amount of oxygen to be used during the first year of operation under the new supply agreement, which is estimated to be 4.0 million pounds.
- c. The successful bidder shall provide complete installation of all other items necessary to make the LOX system completely operational including all connections for electrical, piping, remote monitoring equipment, alarms, etc.
- d. The successful bidder shall provide complete installation of all other items necessary to make the LOX system completely operational including all connections for electrical, piping, remote monitoring equipment, alarms, etc.
- e. The removal of any of the existing LOX system equipment and the installation of any new LOX system equipment shall be coordinated by the successful bidder. All coordination activities are to be conducted by the successful bidder.
- f. The ozone system at the CAWTF is a system critical to the operation of the water treatment process. The successful bidder shall provide for temporary LOX supply for the CAWTF such that the facility's ozone system remains in full operation during the removal of existing LOX system equipment and the installation of new LOX equipment.
- g. The LOX system shall be provided with remote telemetry equipment necessary to allow for continuous LOX storage volume monitoring. Re-supply of LOX shall occur as needed based on this remote monitoring and such that a continuous supply of oxygen is available for the operation of the ozone system at the CAWTF without interruption.
- h. The LOX supplier shall maintain the LOX system throughout the lease period, keeping it reliable and with no oxygen leakage. Any leaks shall be fixed within 24 hours of notification. The bid must contain a response time for providing maintenance on the LOX system as well as the maintenance provider's location, telephone number, and closest location of a maintenance employee. A 24-hour emergency contact telephone number and emergency 24-hour maintenance service support shall be provided.
- i. Each bidder must demonstrate to the Town of Cary that the Town will continue to receive an uninterrupted supply of product as required during the contract period. A letter of product commitment stating that sufficient material is available from the producer listed on the coversheet must be enclosed with the bid showing the committed volume of product to cover the annual quantity required.
- j. References: Each bidder shall submit a list of at least three (3) references from large municipal water utilities for which the LOX being bid is or has been supplied by the bidder. References shall include name of utility, name of primary contact for the utility, and current contact information. This reference list must be submitted with the bid. Failure to submit this reference list may result in rejection of the bid.

- k. Bidders shall submit a transition plan with the bid that outlines the approach used to transition the CAWTF from the current LOX supplier to the potential new LOX supplier if a new supplier is awarded the bid. The plan shall cover temporary LOX supply plans as well as a summary and schedule of coordination activities that will occur to change out the LOX equipment at CAWTF from the current supplier to the new supplier.
- l. A pre-bid meeting will be held at CAWTF on Wednesday June 4, 2025 at 2:00 pm for interested parties to review the current LOX system at the facility and gather pertinent information for preparing the bid and completing the transition plan.

Location:
Cary/Apex Water Treatment Facility
1400 Wimberly Road
Apex, NC 27513

2. SYSTEM INFRASTRUCTURE

The Town of Cary currently has an operating LOX system at CAWTF, which supplies oxygen to the facility's ozone system. The LOX system consists of LOX equipment leased by the Town from the current LOX supplier and the following permanent on-site facilities owned by the Town:

- a. 28' x 32' Concrete Pad
- b. Piping to the pad (Two (2), 6" stainless steel pipes and one (1) attached 2" stainless steel pipe)
- c. 32' x 38' Fence
- d. Electrical Wiring and conduit to the pad
- e. Electrical panel (labeled "Feed from MCC 5")
- f. Alarm Wiring to the panel
- g. Control/alarm panel on North side of concrete pad

3. REFERENCE STANDARDS

- a. Compressed Gas Association (CGA)
 - i) CGA G-4.1 Cleaning Equipment for Oxygen Service
 - ii) CGA G-4.4 Oxygen Pipeline and Piping Systems
- b. National Fire Protection Association (NFPA)
 - i) NFPA 50 Standard for Bulk Oxygen Systems at Consumer Sites
 - ii) NFPA 70 National Electric Code
- c. American Society of Mechanical Engineers (ASME)
 - i) Boiler and Pressure Vessel Code Section VIII, Division 1 - Rules for Construction of Pressure Vessels
- d. Manufacturers Standardization Society of the Valve and Fittings Industry
 - i) MSS SP-67 Butterfly Valves
- e. ASTM International
 - i) ASTM B62-17 Standard Specification for Composition Bronze or Ounce Metal Castings
- f. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

4. OZONE/OXYGEN SERVICE

- a. All equipment, valves, analyzers, seals, gaskets, valve seats and associated appurtenances to be used with oxygen shall be cleaned, sealed and protected in accordance with CGA publication G-4.1 and certified for oxygen service before shipping to the facility site.
- b. All equipment, valves, valve seats, analyzers, seals, gaskets, welds and all associated appurtenances to be used with oxygen must be resistant to degradation and gas losses due to the use of this gas.

5. LOX SYSTEM DELIVERY, STORAGE AND HANDLING

- a. All parts shall be properly protected so no damage or deterioration shall occur during a prolonged delay

- from the time of shipment until installation is completed, and the equipment is ready for operation.
- b. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.

6. LOX SYSTEM MAINTENANCE

- a. All equipment and piping provided by the liquid oxygen system supplier shall be maintained by the liquid oxygen system supplier.

7. LOX SYSTEM EQUIPMENT

The bulk oxygen storage system and associated equipment shall comply with the latest edition of NFPA 50, CGA G-4.4 and all applicable local codes.

LIQUID OXYGEN STORAGE SYSTEM

- a) The liquid oxygen storage system shall include the liquid oxygen storage tank and all related safety devices, appurtenances, and equipment required for operation.
- b) The design of the liquid oxygen storage tank shall be based on the following conditions:

Number of Tanks	2
Gross Capacity of Each Tank	9,000 gallons
Operating Pressure	75 psig
Hydrostatic Test Pressure	250 psig
Design Temperature	+150°F to -320°F

- c) The liquid oxygen storage tanks shall be vertical tanks with double-wall construction. The inner shell of the tank shall be non-embrittling alloys of 9 percent nickel steel and designed, fabricated, tested, inspected and stamped in accordance with Section VIII, Division 1, of the ASME Code. The outer shell shall be designed to standards of the ASME Code for full external vacuum and shall be carbon steel. No code stamp is required for the outer shell.
- d) Internal vessel pressure relief shall consist of both automatic primary and secondary relief devices and manual tank vent valves. External vessel pressure relief shall consist of an automatic relief device.
- e) The insulation shall be perlite packing in the annular ring and a high vacuum. The tank boil-off rate shall not exceed 0.3% of the tank capacity by weight per day.
- f) The tank shall be equipped with an economizer system to direct boiled-off gaseous oxygen to the ozone generation feed-gas system rather than venting to atmosphere.
- g) The tank shall be equipped with a pressure building system to maintain the minimum pressure required for the ozone generation system.
- h) All piping, fitting and valves shall be Type 316 stainless steel of welded construction or copper with silver soldering. All liquid valves shall have extended stems.
- i) The unit shall include a dip tube liquid withdrawal system and a vapor return line from the economizer system. The tank shall be fitted with a liquid level gauge with a low-level alarm switch or low-level signal with a remote telemetry unit. The tank shall be fitted with quick couplings for tanker truck delivery of the liquid oxygen. Both top and bottom fill capability shall be provided.

LIQUID OXYGEN VAPORIZATION SYSTEM

- a) Two (2) ambient air vaporizers shall be provided for the liquid oxygen vaporization system including all related safety devices, appurtenances and equipment required for operation.
- b) Oxygen gas temperature leaving the vaporizers shall be within 20°F of the outside ambient temperature, except that oxygen gas temperature shall be maintained to at least 35°F when ambient air temperatures are below 45°F by using the electric vaporizers. The electric vaporizers shall be downstream of the dual ambient vaporizers. The dual ambient vaporizers shall have upstream and downstream solenoid valves that operate automatically to close off one

vaporizer when it needs deicing, while simultaneously opening the inlet and outlet of the second vaporizer.

c) The design of the vaporizers shall be based on the following conditions:

Capacity of each vaporizer	100% of oxygen flow rate required by the CAWTF ozone system for maximum design production (24,000 lb/day oxygen), under the coldest winter conditions for the site
Minimum period of operation for continuous vaporization cycle	8 hours
Maximum pressure	450 psi
Working pressure	As required for the CAWTF ozone system
Design temperature	Minimum of -425°F

- d) The vaporizers shall be ambient air vaporizers. Units shall be factory-assembled, complete with bracing, lifting lugs, pressure safety relief valves, and necessary internal manifolding. Units shall be suitable for outside installation and operation. The materials of construction shall be suitable for the design conditions, oxygen compatible, factory cleaned for oxygen service, and sealed.
- e) The vaporizers shall be capable of receiving liquid oxygen from the storage vessel and continuously converting it to gaseous form to supply the ozone system at the required system pressure. Further oxygen compression shall not be required. Vaporizers shall be provided with pressure safety relief valves. Automatic vaporizer valve controls shall be furnished to provide automatic switch covers to standby vaporizers on a timed basis to prevent vaporizer freeze-up. The two vaporizers will alternate between lead and defrost/standby positions.
- f) A low temperature cut off switch shall be installed downstream of each vaporizer and shall automatically close a valve in the inlet line to the vaporizer to prevent liquified oxygen from entering downstream process lines. The low-temperature switch shall be set at minus 40°F.
- g) An electric unit that includes heating elements and an aluminum heat exchange block shall be used to defrost the off-line ambient vaporizer when ambient temperatures do not allow regular defrosting. The heating elements and oxygen piping shall be installed in the cast aluminum heat exchange block. Energy is transferred through the aluminum block from the heating elements to the oxygen piping to vaporize the liquid oxygen. The heating elements shall be replaceable and rated at 30 kW, 460 Volt, 3 Phase. The controls for this vaporizer shall include safety cutouts, a selector switch with local-off-auto operation, status indicating lights, alarm lights, starter, main breaker mechanically interlocked with door, and all safety devices as recommended by the liquid oxygen supplier. All components shall be housed in a NEMA 4X 316 stainless steel enclosure.
- h) The control panel shall provide electrical power for vaporizers, controls, meters, instrumentation, etc. The panel shall be designed to permit only one vaporizer to operate at a time. All necessary contactors, interlocks, etc. shall be provided. Individual circuit breakers shall be provided for each transmitter.

OXYGEN FILTERS

- a) Oxygen filters shall be 316 stainless steel, sized for the maximum gas flow, specified mesh and grade as equal to hospital particulate filters with 5 micron or rating smaller.

INSTRUMENTATION

- a) All instrumentation and electrical equipment specified below, as well as other instruments recommended by the equipment manufacturer, shall meet the requirements of the NEC, State, and local codes.
- b) If gauges are provided, the system shall be equipped with an integrally mounted mechanical gauge pane. The gauge panel shall be provided with indicating gauges (mechanical gauge with local readout only) for the following parameters:

- (1) Tank liquid oxygen level for each tank.
- (2) Inner shell pressure for each tank.
- (3) Vaporizer outlet temperature.
- (4) Particle filter pressure differential.
- c) The liquid oxygen supplier shall provide NEMA 4X indicating transmitters for the following parameters (4-20 mA analog signal output shall be provided for each transmitter):
 - (1) Liquid Oxygen Tank Level
 - (2) Vaporizer Temperature
 - (3) Oxygen Pressure
- d) Liquid oxygen tank control junction box. The junction box shall be factory mounted on the liquid oxygen tank and factory wired to all tank-mounted components.
- e) The following parameters shall be provided with isolated 4-20 mA analog signal for remote alarm and monitoring (at the PLC/PC):
 - (1) Liquid Oxygen Tank Level
 - (2) Vaporizer Temperature
 - (3) Oxygen Pressure
- f) The liquid oxygen control panel shall be capable of remote operation by the CAWTF ozone system. Provide controls as necessary. Dry contacts shall be provided for liquid oxygen system "On" and "LOX System Common Fail".

VALVES

- a) Butterfly valves for use in oxygen gas service shall be specifically designed for this service. Valves shall meet all requirements of MSS SP-67. The valve body, one-piece disc, and shaft shall be constructed of Type 316 stainless steel. The valve seats shall be Teflon, backed with Viton or Hypalon. The packing shall be oxygen resistant Viton or Hypalon. The valve design shall be such that oxygen will contact only stainless steel or Teflon materials. Butterfly valves for these services shall be the threaded lug type and shall be suitable for use with 90 to 100 percent (by weight) oxygen gas concentration. Valves that are 6-inches and larger shall be furnished with gear operators.
- b) Check valves for use in oxygen gas service shall be of the threaded lug, dual-plate type. The valve body, disc plates, hinge shaft, disc shop, and spring shall be Type 316 stainless steel construction. The valve seats shall be Teflon. The valve design shall be such that ozone gas will contact only stainless steel or Teflon materials. Valves shall be suitable for use in a 90 to 100 percent (by weight) oxygen gas concentration.
- c) Ball valves for oxygen gas shall be of Type 316 stainless steel construction. The valve packing shall have Teflon packing and twin seals. Valves shall be suitable for 90 to 100 percent (by weight) oxygen gas concentration.
- d) Brass or copper alloy conforming to ASTM B62 may be used instead of stainless steel for LOX valves in the preceding 3 paragraphs, provided that the LOX supplier certifies that the valve materials are their standard, that they will be maintained free from leaks, and that they are appropriate for the application. Stainless steel valves as specified above are required for GOX.

LIQUID OXYGEN TANK LEVEL/PRESSURE MONITOR

- a) Type
 - (1) Microprocessor-based level/pressure monitor and transmitter.
 - (2) Integral Pressure sensors suitable for cryogenic use.
- b) Functional/Performance

Accuracy	+/- 0.1% of full scale for level and pressure
Operating Temperature	-40°F to +160°F
Power	120 VAC
Outputs	Two (2) programmable 4-20 mA analog; Two (2) programmable relay contacts
Display	Backlit LCD, integral to monitor

c) Physical

Enclosure	NEMA 4X/IP 66
Process Flanges	Electro-polished stainless steel
Oxygen Cleaning	Required on all wetted parts

LIQUID OXYGEN SUPPLY MINIMUM SPECIFICATION AND REQUIREMENTS

8. AFFIDAVIT OF COMPLIANCE

- a. An affidavit from the manufacturer or vendor must be furnished showing compliance with all applicable requirements of these specifications.
- b. The person(s) authorized to certify the affidavit of compliance for the Contractor shall be as stated on the Request for Proposal. (See page 20.)
- c. The affidavit of compliance tender documents shall accompany each delivery.

9. QUALITY

- a. Liquid Oxygen must comply with the following parameters:

i) Chemical Properties

Oxygen, min % (v/v)	93.0%
Moisture	7.8 ppm
Argon, max ppm (v/v)	4.5%
Nitrogen, max ppm (v/v)	2.5%
Total hydrocarbons as methane, max ppm (v/v)	<20 ppm

ii) Physical Properties

Molecular Weight	31.998
Color	
Vapor	None
Liquid	Clear Pale Blue
Boiling Point	1 atm, -297.33°F (-182.96°C)
Latent Heat of Vaporization	91.7 BTU/lb (213 kJ/kg)
Specific Heat Gas	70°F (21.1°C), 1 atm

Constant Pressure, Cp	0.2193 BTU/lb°F (0.9181 kJ/kg°C)
Gas/Liquid Ratio	
Gas at 70°F (21.1°C) Liquid at sat, 1 atm (v/v)	860.5
Solubility in Water	
Gas at 70°F (21.1°C) 1 atm, 10 mg/L	8.021

10. CERTIFIED LABORATORY REPORT

For the first delivery to the Cary/Apex Water Treatment Facility and when a significant change occurs in CONTRACTOR's manufacturing process, a certified laboratory report must be submitted to:

Cary/Apex Water Treatment Facility
1400 Wimberly Road
Apex, NC 27523

11. PACKAGING AND SHIPPING

- a. The liquid oxygen solution must be shipped in clean, suitable tanker trucks.
- b. Tanker trucks shall be in suitable condition for hauling liquid oxygen and shall not contain any substances that might affect the use of liquid oxygen in treating municipal water supplies.
- c. The bulk shipments must be accompanied by weight certificates of certified weights.

12. DELIVERY

- a. Upon arrival at the facility, the truck driver shall present to the operator in charge the following items:
 - i) Bill of Lading
 - ii) Affidavit of Compliance
 - iii) Machine Stamped Weighmaster's Certificate of Weight and Measure
 - iv) Material Safety Data Sheet
- b. The deliveries should be made to:

Cary/Apex Water Treatment Facility
1400 Wimberly Road
Apex, NC 27523
- c. All deliveries shall be made between the hours of 7:00AM and 4:00PM, Monday through Friday. Any exception to this requirement must be approved by the facility's Operations Supervisor or his designated representative.
- d. All drivers must present a driver's photo ID prior to receiving shipment; otherwise, shipment will not be accepted. The CONTRACTOR will be required to follow all safety measures as directed by facility staff. Drivers shall wear appropriate protective face and bod apparel, as required by the North Carolina Occupational Safety and Health Standard for unloading and hauling this chemical.
- e. The transfer of chemicals from the tanker truck shall be considered the responsibility of the CONTRACTOR and the tank truck operator. All truckers shall report to the Operator in Charge on every delivery and obtain their approval prior to starting the unloading operations.
- f. All tanker and appurtenant valves used for the delivery of the LOX under this agreement must be in good mechanical order and shall be in full compliance with the applicable requirements of the current Hazardous Material Regulations.
- g. Any tanker truck found leaking chemicals shall not be allowed to depart the facility until appropriate repairs are made by the CONTRACTOR or his designated representative. Any tanker truck found leaking chemicals shall be considered as an emergency requiring immediate attention by the CONTRACTOR.

- h. The CONTRACTOR and truck operator shall be responsible for cleanup of all spillage, contaminated matter, and the removal of all contaminated cleanup material. The CONTRACTOR will be notified of any spillage that is not cleaned up by the truck driver. Any spillage not cleaned up within 2 hours of notification will be cleaned up by the Town and billed to the CONTRACTOR.
- i. The CONTRACTOR shall ensure that the product is delivered in clean containers/tanks and free of contaminants. Contamination of stock shall render the contractor liable for disposal of contaminated material, clean-up of storage facilities and full replacement of stock at contractor expense.

GENERAL BID REQUIREMENTS

13. BID SPECIFICATION COMPLETION INSTRUCTIONS:

All text fields or blanks must be responded to in the returned bid submittal form (page 1). **Failure to complete this information will indicate a non-responsive bid.**

14. MEETS OR EXCEEDS SPECIFICATIONS:

Please check the appropriate "YES" or "NO" box on the bid submittal form, indicating that the items being bid does meet or does not meet the specification as written. Checking the "NO" field indicates that the bidder does not meet the specification as requested and is taking an exception. All exceptions must be explained in detail as per below

15. EXCEPTIONS TAKEN TO SPECIFICATIONS:

Any exceptions to the original bid specifications must be submitted in writing during the question-and-answer period and will be approved or denied via addendum. Bidders must note clearly any and all approved exceptions taken to the specifications as an attachment within their submitted bid. The specifications were not written to intentionally eliminate any one bidder. Bidders must note differences as an "Exception" and attach detailed information explaining how the exception is "equal to" or "exceeds" the intent of the specification. All exceptions and items submitted as equal will be evaluated. The Town reserves the right to reject any and all bids and to waive any irregularities or technicalities in bids received whenever such rejection or waiver is in the best interest of the Town of Cary. All Exceptions taken to the specifications must be indicated by checking the "NO" field on the bid submittal form (page 1) and be explained individually in detail on an attached sheet and submitted with your bid. If there is an objection to any of the specifications or requirements listed herein, the bidder must notify the Town of Cary Purchasing Supervisor, in writing, stating and listing the specifications and objections, no later than five (5) working days prior to the bid opening (as per **Instructions to Bidders**).

ATTACHMENT 1

MUNICIPAL REFERENCES

Please provide a minimum list of three (3) references of current or prior large municipal water utility to whom you have provided the same system being bid.

Name of Utility _____
Address _____
Contact Person _____
Telephone _____ E-mail: _____
Delivery Dates _____
Approximate Annual Quantity _____

Name of Utility _____
Address _____
Contact Person _____
Telephone _____ E-mail: _____
Delivery Dates _____
Approximate Annual Quantity _____

Name of Utility _____
Address _____
Contact Person _____
Telephone _____ E-mail: _____
Delivery Dates _____
Approximate Annual Quantity _____