

# THE OCEAN COUNTY UTILITIES AUTHORITY

## ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids will be received by The Ocean County Utilities Authority in their offices at 501 Hickory Lane, Bayville, New Jersey, up to 11:30 a.m., prevailing time, on January 18, 2012 for:

Contract EA-12-276

Furnish and Deliver Three (3) Electric Actuators and Appurtenances for Retrofitting into Existing Manually Operated 36-inch Pump Suction Gate Valves as Manufactured by Limatorque Model No. MX-40 W/B320-40, or Equivalent.

Bids must be submitted on forms prepared by the Authority. All bids must be enclosed in sealed envelope, approximately 10" x 15", bearing, on the outside, the name and address of the Bidder and the work bid upon.

Specifications may be obtained by bona fide bidders upon application at the Authority offices, at the Central Water Pollution Control Facility, 501 Hickory Lane, Bayville, New Jersey 08721 or via our website at [www.ocua.com](http://www.ocua.com).

Every person intending to make a bid on this contract is expected, before submitting same, to make himself fully familiar with the work locations and the type of equipment used by the Authority. **PRIOR TO SUBMITTING THE BID, EACH BIDDER SHALL ATTEND THE PRE-BID CONFERENCE & SITE TOUR, WHICH IS SCHEDULED FOR TUESDAY, JANUARY 10, 2012 AT 10 A.M., AT THE CENTRAL WATER POLLUTION CONTROL FACILITY. PROSPECTIVE BIDDERS PLANNING TO ATTEND THE PRE-BID CONFERENCE SHALL CONTACT PRAVIN DUMASIA AT 732-269-4500, EXTENSION 8303.** Questions regarding the specifications will be addressed after the site tour is conducted.

The Authority reserves the right to accept or reject any or all bids or to waive any and all informalities or technicalities, if in the best interest of the Authority.

This contract will be awarded through a "Fair and Open" process pursuant to New Jersey Local Unit "Pay To Play" Law, Chapter 19, P.L. 2004 (as amended by P.L. 2005, c.51), N.J.S.A. 19:44A-20.4 et seq.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C 17:27, equal employment opportunities, P.L. 1977, c.33, corporate and/or partnership ownership and P.L. 2004, c.57, business registration of public contracts.

## INSTRUCTIONS TO BIDDERS

Sealed bids will be received in accordance with the Advertisement for Bids, as required by law, a copy of said notice being attached hereto and made a part of these specifications. Bids will be opened publicly in the Finance Conference Room at 501 Hickory Lane, Bayville, New Jersey on the date specified in the Advertisement for Bid.

### Designations

The Ocean County Utilities Authority is also designated as the Authority or Owner herein. The bidder may also be referred to as the vendor/contractor as may be appropriate.

### Pre-Bid Conference

Every person intending to make a bid on this contract is expected, before submitting same, to make himself fully familiar with the work locations and the type of equipment used by the Authority. Prior to submitting the bid, each bidder shall attend the Pre-Bid Conference/Site Tour, which is scheduled for Tuesday, January 10, 2012 at 10:00a.m., at the Central Water Pollution Control Facility. Questions regarding the specifications will be addressed at this meeting. Failure to visit the Authority's facilities will not relieve the bidder of his responsibilities under this contract. A contractor will be debarred from pleading misunderstanding or deception, because of estimates of quantities, character, scope of work, locations, or other conditions surrounding the same. Permission will not be given to withdraw, modify, or explain any proposal or bid after it has been deposited.

### Questions

No oral interpretation shall be made to any bidder as to the meaning of any of the specifications. Any questions pertaining to this bid document shall be directed to:

Christine D. Carty, QPA, RPPO Purchasing Agent  
501 Hickory Lane  
P.O. Box P  
Bayville, NJ 08721  
Phone: 732-269-4500 Ext. 8229  
Fax #: 732-269-8440

All questions shall be submitted in writing to the Authority, and shall be postmarked at least seven (7) days before the established date for bid opening. The Authority will arrange, as addenda, which shall become part of the contract, all pertinent questions received and the decision regarding each. Prior to the opening of bids, a copy of these addenda will be sent to each vendor who has obtained a set of specifications from the Authority.

Bidders shall acknowledge receipt of any addenda in the space provided in the Bid Form. In the event that the bidder does not acknowledge receipt of any or all addenda, the bidder shall be bound to comply

with said addenda. Bids will be considered non-responsive if recognition of any addendum is not listed on the form provided in the bid package.

### Omissions and Discrepancies

Should a bidder find discrepancies or omissions in the specifications, or should he be in doubt as to their meaning, he should immediately notify, in writing, or orally, the Authority who shall issue an addendum for clarification to all of those who have received sets of specifications. Time limits shall be as defined in "Questions".

### Withdrawal of Bids

The attention of bidders is directed to the fact that in submitting his bid, the bidder agrees that he will not withdraw it within sixty (60) consecutive calendar days after opening the bids.

Upon proper request and identification, bids may be withdrawn as follows:

1. At any time prior to the designated time for the opening of bids.
2. Provided the bid has not been accepted by the Authority, at any time subsequent to the expiration of the period during which the bidder has agreed not to withdraw his bid.

Unless a bid is formally withdrawn, it shall be deemed open for acceptance until the contract agreement has been executed by both parties thereto or until the Authority manifests that they do not intend to accept the bid. Notice of acceptance of a bid shall not constitute rejection of any other bid.

### Bids Forwarded Through the Mail

The Authority will not assume responsibility for bids forwarded by mail. It is the individual's responsibility to see that bids are presented to the Authority at the time, date and place designated.

### Bid Form

Bidders must use the bid form furnished by the Authority when submitting their bid.

All bids must be enclosed in a sealed envelope bearing, on the outside, the name and address of the bidder, the contract number and the date of the bid opening. The bid form must be completed in ink or typewritten.

For purpose of evaluation where an equivalent product is being furnished, bidder must indicate any variation to our specifications no matter how slight. If no variations are indicated, it will be construed that the bid fully complies with our specifications. If at any time during the course of the contract the product does not meet the specification or is found not to be an equivalent, the original product must be delivered.

**If an equivalent product is being proposed, vendor MUST supply sufficient documentation with the bid package to enable the Authority to evaluate whether the proposed product is equivalent to that specified. If the documentation is considered by the Authority to be insufficient for such evaluation, the proposed product shall be considered not equivalent.**

**Shipping / FOB Destination**

Prices for furnishing all of the material and/or labor described or required shall be inserted where applicable. Prices shall be net, including charges for packing, crating, containers, etc. and all transportation charges fully prepaid by the contractor F.O.B. destination and placement at locations specified by the Authority. No additional charges will be allowed for any transportation cost resulting from partial shipments made at the vendor's convenience when a single shipment is ordered.

**Informal Bids**

The Authority may reject as incomplete, bids which contain erasures not properly initialed, or incomplete bid documents.

**Non-Collusion Affidavit**

The Non-Collusion Affidavit, which is part of these specifications, shall be completed and submitted with the bid.

**Ownership Statement**

If the bidder is a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the bidder, in compliance with P.L. 1977, Chapter 33, shall submit, with his bid, a statement setting forth the names and addresses of all stockholders or individual partners who own 10% or more of its stock or interest. If one or more such stockholder or partner is itself a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed.

**THE OWNERSHIP STATEMENT PAGE MUST BE COMPLETED AND SIGNED**

**Insurance**

1. The bidder shall not commence Work until the bidder has obtained at the bidders own expense all of the insurance as required hereunder and such insurance has been approved by the Authority nor shall the bidder allow any Subcontractor to commence work on any subcontract until all insurance required of the Subcontractor has been so obtained and approved by the bidder. Approval of insurance required of the bidder will be granted only after submission to the Authority original certificates of insurance signed by authorized representatives of the insurers or, at request of the Authority, certified copies of the required insurance policies.

2. The bidder shall require all Subcontractors to maintain during the term of the Contract commercial general liability insurance, business auto liability insurance and workers compensation/employers liability insurance. Except as modified by the Authority in writing, the insurance requirements herein shall also apply to Subcontractors and to the Sub-Subcontractors and the bidders will be responsible for supervision of the filing of certified copies of the insurance policies and/or insurance certificates prior to any Subcontractor commencing work on the project.
3. All insurance policies required hereunder shall be endorsed to provide that the policy is not subject to cancellation, non-renewal, or material reduction in coverage until sixty (60) days prior written notice has been given to the Authority.

The phrases "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" are to be eliminated from the cancellation provision of standard ACORD certificates of insurance.

4. No acceptance and/or approval of any insurance by the Authority shall be construed as relieving or excusing the bidders or the bidders Surety from any liability or obligation imposed upon either or both of them by the provisions of this Contract.
5. Any deductibles or retention of \$5,000 or greater shall be disclosed by the bidder and are subject to Authority written approval. Any deductible or retention amounts elected by the bidder or imposed by the bidder insurer(s) shall be the sole responsibility of the bidder.
6. All required insurance coverages must be underwritten by insurers licensed to do business in the State of New Jersey and be acceptable to the Authority. The insurers must also have a policyholders' rating of "A-" or better, and a financial size of "Class VII" or better in the latest evaluation by A. M. Best Company.
7. If the Authority is damaged by the failure or neglect of the bidder to purchase and maintain insurance as described and required herein, without so notifying the Authority, then the bidder shall bear all reasonable costs properly attributable thereto.

### **Insurance Requirements**

The bidder of products and/or services shall purchase and maintain the following insurance coverage which will insure against claims which may arise out of or result from the bidders products/completed operations under the Contract and for which the bidder may be legally liable, whether such products/completed operations be by the bidder or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Insurance shall be written for not less than the limits specified below or required by law, whichever is greater.

1. Commercial general liability insurance or its equivalent for bodily injury, personal injury and property damage including loss of use, with minimum limits of:

\$1,000,000 each occurrence;  
\$1,000,000 personal and advertising injury;  
\$2,000,000 general aggregate; and  
\$2,000,000 products/completed operation aggregate.

2. Business auto liability insurance or its equivalent with a minimum limit of \$1,000,000 (CSL) per accident and including coverage for all of the following:

- Liability arising out of the ownership, maintenance or use of any auto; and
- Auto non-ownership and hired car coverage.
- Uninsured/Underinsured motorist coverage at a limit no less than the minimum statutory limits.

3. Workers compensation insurance or its equivalent with statutory benefits as required by any state or Federal law, including “other states” coverage; and employers liability insurance or its equivalent with minimum limits of:

\$500,000 each accident for bodily injury by accident;  
\$500,000 each employee for bodily injury by disease; and  
\$500,000 policy limit for bodily injury by disease.

4. Umbrella excess liability or excess liability insurance or its equivalent with minimum limits of:

\$1,000,000 per occurrence;  
\$1,000,000 aggregate for other than products/completed operations and auto liability;  
\$1,000,000 products/completed operations aggregate.

and including all of the following coverage on the applicable schedule of underlying insurance:

- i. Commercial general liability
- ii. Business auto liability; and
- iii. Employers liability

5. Authority and Authority’s appointed officials, officers, consultants, agents and employees shall be named additional insured’s on the bidders commercial general liability insurance and umbrella excess or excess liability insurance policies with respect to liability arising out of the bidders work under this Contract. Such coverage shall extend to cover the additional insured for liability arising out of the following:

- i. On-going operations; and
- ii. Completed operations.

### Authority Right Reserved

The Authority reserves the right to accept or reject any or all proposals, or to waive any informality or technicality in any proposal, if in the best interest of the Authority.

### Quantity and Quality for Acceptance

All materials delivered under this contract shall be to the satisfaction of the Authority, who reserves the right to confirm the amount, quality, acceptability and fitness of the materials which are to be paid for hereunder and shall decide any questions which may arise as to the fulfillment of this contract. The determination of the Authority in these matters shall be final and conclusive.

If any shipment or part thereof fails to meet the quality specified in this contract, the Authority reserves the right to reject that material. The rejected material shall be immediately removed by the bidder, at his own expense. The bidder shall then replace the rejected material with material as specified.

### Quantity

The quantities listed on the attached bid form are provisional, for the bidder's information only, based upon The Authority's best knowledge. No warranty is given or implied as to the item or the total quantity that will be purchased.

### Delivery

Delivery destinations are as listed under the specifications and a map is included. All delivery schedules must be approved by the Authority to conform to its needs at these facilities. Maximum delivery time shall not exceed one (1) working week from the time of notification until delivery to the Authority.

Delivery time for all locations must be between the hours of 7:30 a.m. and 3:00 p.m.

### Damages

The successful bidder, upon failure or refusal to execute and deliver the contract agreement shall be liable to the Authority for damages suffered, which shall be defined as the difference between the amount specified in the successful bid and the amount for which the Authority may contract with another party to perform the work covered by said bid if the latter amount be in excess of the former, together with any additional expenses incurred by the Authority as a result of such bidder's failure to enter into the contract, including, but not limited to, the expense for readvertisement for bids and the processing of such bids.

### Preference for Domestic Products

Only manufactured products of the United States, wherever available, shall be used in connection with this contract, pursuant to 40A:11-18 of the Revised Statutes of the State of New Jersey.

In the case of Delta Chemical Corporation vs. The Ocean County Utilities Authority, 231, N.J. Super. 180 (Law. Div. 1988), the Superior Court of New Jersey held that N.J.S.A. 40A:11-18 are constitutional, but that an absolute preference for domestic materials was not mandated. In some circumstances the public agency has discretion to buy a foreign product even if an American product is available. A subsequent decision by the Court recognized the right of the public body to adopt appropriate guidelines. The Commissioners of The Ocean County Utilities Authority have determined by Resolution that the statutory preference for domestic materials will be followed only if the bid price for domestic materials does not exceed by 2 per centum the bid price of the lowest responsive, responsible bidder, regardless of place of origin of the materials supplied by the low bidder.

#### Contract Year - Prices Firm

**This is an award and deliver contract.**

**This contract will be effective as of the date set forth on Page 1 of the contract agreement.**

#### Contract Award

The Authority will award a single contract to the bidder submitting the lowest price for ALL items listed in the Bid Form. It is therefore imperative that a bid price be supplied for each item.

No bid will be accepted which does not contain a price for every item contained in the bid form.

In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall prevail. In the event there is an error of the summation of the extended totals, the bidder authorizes the Authority to correct the extended totals and the computation made by the Authority shall govern.

In the event there is an equal or tie bid the Authority reserves the right to award at their discretion to any of the tie bidders.

The award of this contract is subject to the 10 day review period provided by S763, N.J.S.A. 40:14B-14.

**This contract will be effective as of the date set forth on Page 1 of the contract agreement.**

#### Pay to Play

**The Ocean County Utilities Authority will make an award of the contract under and pursuant to N.J.S.A. 40A:11-1, et seq., (New Jersey Public Contracts Law), within sixty (60) days from the date of the receipt of the bids through a "Fair and Open" process pursuant to New Jersey Local Unit "Pay To Play" Law, Chapter 19, P.L. 2004 (as amended by P.L. 2005, c.51), N.J.S.A. 19:44A-20.4 et seq.**

**"Bidders are advised of the responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission pursuant to N.J.S.A. 19:44A-20.13 (P.L. 2005, c.271, s.3) if the bidder receives contracts in excess of \$50,000 from public**

entities in a calendar year. It is the Vendors responsibility to determine if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at [www.elec.state.nj.us](http://www.elec.state.nj.us).”

#### NJ ONE CALL.

By presenting a bid, bidder declares that he is aware of and, if required, will comply with the requirements of the “Underground Facility Protection Act (Public Law 1994, Chapter 118)” prior to commencing and intended excavation. The telephone number to call is 1-800-272-1000.

#### Failure to Sign Contract

If the successful bidder shall fail to contract as aforesaid, then the Authority may by its option determine bid and acceptance to be null and void and the Bid Security shall become the property of the Authority.

#### Execution of Contract

The successful bidder will be required to execute the contract agreement within ten (10) days (Sundays and legal holidays excluded) after receipt of notification that the contract agreement is ready for signature.

#### Payment

Payment requests must be submitted on Authority voucher forms. All Contractors administrative costs shall be included in the prices bid.

The new purchase order form also serves as the authority voucher form. This form must be returned with the vendors invoice in order for payment to be made.

Regularly scheduled Authority meetings are held the fourth Thursday of each month. Properly submitted vouchers, received by the Authority no later than the tenth (10th) day of the month, will be processed and paid 15 days after the Authority meeting.

#### New Jersey Business Registration Requirements P.L. 2004, c.57

The bidder should include a copy of their New Jersey Business Registration Certificate with their bid.

**Per P.L. 2009, c.315 (A-557/S2366)** now permits filing prior to award of contracts if not filed with bid as long as the bidder had obtained the BRC prior to receipt of bids date.

The bidder shall provide written notice to its subcontractors of the responsibility to submit proof of business registration to the contractor.


Before final payment on the contract is made by the contracting agency, the vendor/contractor shall submit an accurate list and the proof of business registration of each subcontractor or supplier used in the fulfillment of the contract, or shall attest that no subcontractors were used.

For the term of the contract, the vendor/contractor and each of its affiliates and a subcontractor and each of its affiliates [N.J.S.A. 52:32-44(g)(3)] shall collect and remit to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act on all sales of tangible personal property delivered into this State, regardless of whether the tangible personal property is intended for a contract with a contracting agency.

A business organization that provides false business registration information under the requirements of either of those sections, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided under a contract with a contracting agency.

STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE		DEPARTMENT OF TREASURY/ DIVISION OF REVENUE PO BOX 252 TRENTON, N.J. 08646-0252
TAXPAYER NAME:	TRADE NAME:	
TAXPAYER IDENTIFICATION#:	SEQUENCE NUMBER:	
ADDRESS:	ISSUANCE DATE:	
EFFECTIVE DATE:	<i>John S. Tully</i> Acting Director	
FORM-BRC(08-01)	This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.	

These are samples of the ONLY acceptable Business Registration Certificates.

 <b>STATE OF NEW JERSEY BUSINESS REGISTRATION CERTIFICATE</b>	
Taxpayer Name:	TAX REG TEST ACCOUNT
Trade Name:	
Address:	847 ROEBLING AVE TRENTON, NJ 08611
Certificate Number:	1093907
Date of Issuance:	October 14, 2004
For Office Use Only:	
	20041014112823533

## Default

In the event that the vendor/contractor fails to furnish and deliver the materials set forth under this contract, The Authority reserves the right to procure this material, for their needs, in the open market and charge the excess cost above the contract bid price, if any, to the vendor/contractor.

Upon default on the part of the vendor/contractor in the performance of any of the terms and conditions of this contract, the Authority shall have the right to terminate the contract in addition to any other remedy to which the Authority may be legally entitled, including liability to said Authority for any and all damages incurred to the Authority by reason of said failure or default.

## Indemnification

The vendor/contractor shall indemnify and save harmless to the fullest extent permitted by law, the Authority and the Authority's officials, officers, agents, consultants and employees, from and against and all losses and claims, demands, payments, suits, actions, or recoveries, and judgments of every nature and description brought or recovered against them by reason of any act or omission of the said vendor/contractor, his agents, or employees in the execution of its obligations hereunder.

## Sales and Use Taxes

The vendor/contractor shall study all tax laws for the jurisdiction in which the work is to be done, particularly so-called "Sales and Use Taxes" for which he may be liable as a consumer or user of goods. The Authority is a tax exempt organization and such taxes shall not be included in the bid amounts.

## State of New Jersey Affirmative Action Requirements

### I. Affirmative Action Requirements

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause;

The contractor or subcontractor, where applicable, will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor, where applicable will send to each labor union or representative or workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to attempt in good faith to employ minority and female workers consistent with the applicable county employment goals prescribed by N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time or in accordance with a binding determination of the applicable county employment goals determined by the Affirmative Action Office pursuant to N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time.

The Contractor or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable federal law and applicable federal court decisions.

The contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable federal law and applicable federal court decisions.

The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and service contract, one of the following three documents:

Letter of Federal Affirmative Action Plan Approval  
Certificate of Employee Information Report  
Employee Information Report Form AA302

The contractor and its subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Affirmative Action Office for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (N.J.A.C. 17:27).

Americans with Disabilities Act of 1990

The CONTRACTOR and the OWNER do hereby agree that the provisions of Title II of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. S12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the OWNER pursuant to this contract, the CONTRACTOR agrees that the performance shall be in strict compliance with the Act. In the event that the CONTRACTOR, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the OWNER in any action or administrative proceeding commenced pursuant to this Act. The CONTRACTOR shall indemnify, protect, and save harmless the OWNER, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the OWNER grievance procedure, the CONTRACTOR agrees to abide by any decision of the OWNER which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the OWNER or if the OWNER incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its own expense.

The OWNER shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with full and complete particulars of the claim. If any action or administrative proceedings is brought against the OWNER or any of its agents, servants, and employees, the OWNER shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the OWNER or its representatives.

It is expressly agreed and understood that any approval by the OWNER of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the OWNER pursuant to this paragraph.

It is further agreed and understood that the OWNER assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the OWNER from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

## **TECHNICAL SPECIFICATIONS**

### **ELECTRIC ACTUATORS AND APPURTENANCES FOR PUMP SUCTION GATE VALVES – CPS-9 – CD1122**

#### **1.0 GENERAL**

The OCUA is soliciting bids for procurement and delivery of three (3) electric actuators and appurtenances for retrofitting into existing manually gear-operated 36-inch pump suction gate valves in the pump station CPS-9. The Vendor shall provide appropriately sized electric actuators for intended service and provide all necessary mounting brackets, adaptors, hardware, and appurtenances. All installation of the actuators and appurtenances will be done by OCUA personnel.

#### **1.01 SUMMARY OF WORK**

- A. Furnish and deliver three (3) electric actuators and appurtenances for retrofitting into existing manually operated 36-inch pump suction gate valves in the pump station CPS-9.
- B. The Vendor shall visit the plant site observe and take field measurements of all existing gate valve installations requiring electric motor actuators under this contract. All necessary parts to adapt to the existing gate valve installations and all necessary new hardware to mount and operate the actuators shall be included as part of the Scope of Work called for under this specification. All required changes by OCUA personnel to the existing gate valves and installation hardware shall be clearly shown and identified in shop drawing submittals.
- C. Provide two (2) man-days of site visit for startup, field services, training, and manufacturer's certification of installation in accordance with the specification.
- D. Provide a two (2) year Warranty on all equipment and systems furnished.
- E. Provide four (4) copies of final Operations and Maintenance Manuals and two (2) copies on a CD for all equipment and systems provided in accordance with the Technical Specifications.
- F. Provide startup, and training services as described herein.

#### **1.02 APPLICABLE STANDARDS, CODES, AND REGULATIONS**

- A. American Society for Testing and materials (ASTM).
- B. National Electrical Manufacturer's Association (NEMA).
- C. National Electric Code.

- D. American Water Works Association (AWWP).
  - 1. C540: Power-Actuating Devices for Valves and Sluice Gates
- E. American Bearing Manufacturer's Association (ABMA).
  - 1. Standard 9-90 Load Ratings and Fatigue Life for Ball Bearings.
  - 2. Standard 11-90 Load Ratings and Fatigue Life for Roller Bearings.

### 1.03 QUALITY ASSURANCE

- A. Provide as specified herein.
- B. Actuators for all gate valves and equipment to be the product of one manufacturer.
- C. Actuators to be manufacturer's standard cataloged product and modified to provide compliance with the specifications and the service conditions specified and indicated.
- D. Shop tests as specified.
- E. The Vendor shall provide the services of a factory-trained Service Technician, specifically trained on the type of equipment specified.
  - 1. Any additional time required of the factory trained Service Technician to assist in placing the equipment in operation or testing or to correct deficiencies in installation, equipment, or material shall be provided at no additional cost to the Owner.
- F. The manufacturer of the actuators must have at least five (5) operating installations with actuators of the type and size specified and in the same service as specified operating for not less than five (5) years.
- G. The Vendor shall provide a list of names, addresses, contact telephone numbers, and dates of installation. This list shall be submitted with the bid.
- H. If the Vendor desires to offer equipment as an alternate to the specified equipment, he shall submit with his bid substantial descriptive information in order that the Owner's Engineer may determine if the proposed alternate is equal or superior in quality to that specified.
  - 1. No alternate will be considered unless in the opinion of the Owner it conforms to the specification in all respects except manufacturer and model and minor details. Material variances will not be allowed.

2. Alternate equipment which is a “standard product” of the manufacturer shall be modified, redesigned, or furnished with special features or special materials as may be necessary to adapt to the Owner’s installation conditions.
  3. If an alternate is submitted, the Vendor shall field verify that the proposed equipment will fit into the Owner’s existing gate valves.
  4. The Owner reserves the right to decide whether or not the proposed alternate will be acceptable.
  5. If an alternate is found to be not acceptable, the Vendor shall be responsible for supplying the equipment specified.
- I. All equipment shall be designed and fabricated in accordance with the best practices and methods and shall be suitable for the intended service.

#### **1.04 BID SUBMITTALS**

The following additional information must be submitted with the bid proposal:

- A. Certification that the equipment to be provided shall comply with the Specifications in every respect.
- B. Manufacturer’s model numbers and technical data, such as standard drawings, schematics, wiring diagrams, performance information, etc., for standard units similar to those which the Vendor intends to provide.
- C. Certification that warranties are to be provided in accordance with the Specifications.
- D. Submit installation reference list in accordance with this specification.
- E. ISO 9001 Certification.

#### **1.05 SHOP DRAWINGS**

- A. The Vendor shall submit the following shop drawings for review of the Owner for the equipment proposed under the contract:
  1. Certified shop and erection drawings.
  2. Data regarding actuator and motor characteristics and performance.
  3. Shop drawing data for accessory items.

4. Manufacturer's literature as needed to supplement certified data.
  5. Operating and maintenance instructions and parts lists.
  6. Actuator shop test results.
  7. Motor shop test results.
  8. Qualifications of factory-trained Service Technician.
  9. Schematic control and power wiring diagrams.
  10. Shop and field inspection reports.
  11. Recommended spare parts.
  12. Recommendations for short and long-term storage.
  13. Special tools.
  14. Shop and field testing procedures and equipment to be used.
  15. Torque settings for each actuator.
  16. Manufacturer's product data and specifications for shop painting including statement of compliance for compatibility with field painting.
  17. Provide a listing of the materials recommended for each service specified and indicated.
- B. Shop drawings submitted for the Owner's review shall bear the Vendor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the Contract Documents.
- C. The Owner's review of the Vendor's shop drawings shall be considered as a service given as assistance in interpreting the requirements of the Contract and in no way shall it relieve the Vendor of any of his responsibilities under the Contract. Any fabrication, erection, setting or other work done in advance of receipt of fully approved shop drawings returned by the Owner and noted as "no exception taken" shall be entirely at the Vendor's risk.
- D. The Owner's review will be confined to review for compliance with the Contract Specifications only and will not be for the purpose of checking dimensions, weights, clearances, fittings, and tolerances, interferences or coordination of trades. The Vendor shall thoroughly check all manufacturer's shop drawings regarding measurements, sizes of members, materials

and details to ensure that they conform to the Contract specifications. Drawings found to be inaccurate or otherwise in error shall be returned to the manufacturer by the Vendor for correction before submitting them to the Owner.

- E. All submissions shall be properly referenced to indicate clearly the specification section, location, service and function of the particular item. Where manufacturer's publications in the form of catalogs, pamphlets or other data sheets are submitted in lieu of prepared shop drawings, such submissions shall specifically indicate the item for which review is requested. Identification of items shall be made in ink and submissions showing only general information are not acceptable. Modify drawings and diagrams to delete information, which is not applicable to the work and supplement standard information if necessary to provide data specifically applicable to the work.
- F. The Vendor shall submit three (3) sets of all shop or working drawings for the equipment. Only drawings that have been checked and corrected by the manufacturer shall be submitted. The Vendor shall be responsible for the prompt submission of all shop or working drawings so that there shall be no delay to the work due to the absence of such drawings. Shop drawings shall be 11 x 17 inches.
- G. The shop drawings shall show, as a minimum:
1. Performance characteristics, capacities, materials of construction, and other relevant technical information demonstrating compliance with the requirements of the Specifications.
  2. Dimensions and clearances required (as appropriate).
  3. Electrical characteristics and requirements (as appropriate).
  4. Indicate type and brand of all coatings (as appropriate).
  5. Applicable standards, such as IEEE, ANSI, NFPA, IEC, UL, NEMA standards, etc.
- H. Review of Shop Drawings:
1. After the Owner completes the review, Shop Drawings will be marked with one of the following Action Codes:
    - No Exceptions Taken
    - Make Corrections Noted
    - Amend and Resubmit
    - Rejected - See Remarks
  2. If a submittal is acceptable, it will be marked "No Exceptions Taken" or "Make Corrections Noted." Upon return of a submittal so marked, the Vendor may order, ship,

fabricate, or commence Work, as appropriate, with regard to the items and/or materials included in the approved submittal, provided it is in accordance with all corrections indicated (if any).

3. If a submittal marked "Make Corrections Noted" has extensive corrections or corrections affecting other Shop Drawings or Work, the Owner may require that the Vendor make the corrections indicated thereon and resubmit the Shop Drawings for record purposes. Such drawings will have the notation "Make Corrections Noted - Resubmit."
4. If a submittal is unacceptable, it will be marked either "Amend and Resubmit" or "Rejected - See Remarks."
5. Upon return of a submittal marked "Amend and Resubmit," the Vendor shall make the corrections indicated and repeat the initial approval procedure. The "Rejected - See Remarks" notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, the Vendor shall repeat the initial approval procedure utilizing material, equipment, etc. that is acceptable.
6. All related Work performed or equipment fabricated, delivered, or installed without a "No Exceptions Taken" or "Make Corrections Noted" Shop Drawing shall be at the sole responsibility of the vendor.
7. In all cases, two (2) reviewed Shop Drawings shall be returned to the Vendor.

## **1.06 OPERATIONS AND MAINTENANCE MANUALS**

The Vendor shall provide four (4) sets of completed O&M Manuals and two (2) copies of complete O&M Manuals on a CD as outlined below.

### **A. Form of Submittal**

Prepare data in the form of an instructional manual for use by the Owner's personnel. The manual shall contain:

1. Local source of supply for parts and replacements.
2. Technical Bulletins, Service Manuals with schematic wiring diagrams, etc.
3. Product Data - if submitted in the form of manufacturer's published data.
  - a. Include only those sheets that are pertinent to the specific product.
  - b. Clearly identify data applicable to the installation.

- c. Delete references to inapplicable information.
- 4. Drawings: Supplement product data with drawings as necessary to clearly illustrate relations of component parts of equipment and systems.
- 5. Copy of each warranty bond and service Contract issued.
- 6. Provide an information sheet for Owner's personnel providing the following:
  - a. Proper procedures in the event of failure.
  - b. Instances that might affect validity of warranties or bonds.

**B. Manual for Equipment and Systems**

- 1. Content for equipment and systems shall contain the following, as appropriate:
  - a. Description of unit and component parts.
  - b. Installation Instructions.
  - c. Function, normal operating characteristics, and limiting conditions.
  - d. Engineering data and tests.
  - e. Complete nomenclature and commercial number of replaceable parts.
- 2. Operation procedures: break-in, routine and normal operation instructions.
- 3. Manufacturer's printed operating and maintenance instructions.
- 4. Manufacturer's published warranty.

**1.07 SUPPORT**

- A. The installation of the equipment shall be done by Owner personnel. The Vendor shall provide on-site technical support to the Owner's staff regarding the initial installation, startup, operation, and maintenance as listed in the Specification. After acceptance by the Owner, the Vendor shall provide technical support via telephone to the Owner's Operations and Maintenance staff for future operating, maintaining, and trouble-shooting.

**1.08 SHIPPING AND IDENTIFICATION**

- A. Protect unpainted machined surfaces exposed during shipment to assure protection from

corrosion for a period of one year.

- B. Cap, plug or otherwise protect openings to prevent entrance of foreign material.
- C. Handle, ship, and store all equipment in strict accordance with the manufacturer's recommendations.

#### **1.09 DELIVERY, SCHEDULE, AND SITE**

- A. The delivery shall be F.O.B. DESTINATION, FREIGHT PREPAID, between 0830 hours and 1500 hours to the following:

Central Water Pollution Control Facility  
501 Hickory Lane  
Bayville, New Jersey 08721

- B. The Vendor shall notify the Owner when the equipment is ready for shipment. Upon receipt of the notification, the Owner will notify the Vendor of the desired delivery date. The Vendor shall acknowledge the receipt of notice and confirm the actual date and approximate time at least three (3) days prior to the established delivery date.
- C. The Shop Drawings shall be submitted within two (2) weeks from the date of award of Contract. Upon review and approval of the shop drawings, the Owner shall issue a "Notice to Proceed." The Vendor shall furnish all equipment within **seventy-five (75)** consecutive calendar days from the date specified in the "Notice to Proceed."

#### **1.10 FAILURE OF TESTS**

- A. Any defects in the equipment, or deviations from the guarantees or requirements of the specifications, shall be promptly corrected by the Vendor by replacement and/or Owner-approved repair. The decision of the Owner as to whether or not the Vendor has fulfilled his obligations under the Contract shall be final and conclusive. If the Vendor fails to correct all defects or deviations, or if the replaced equipment when tested shall fail to meet the guarantees or specified requirements, the Owner, notwithstanding his having been made partial payment for work and materials which have entered into the manufacture of such equipment, may reject equipment and order the Vendor to remove them from the premises at the Vendor's expense.
- B. If the Owner rejects a particular item of equipment, then the Vendor hereby agrees to pay to the Owner all sums of money paid to him for the rejected equipment. Upon receipt of such monies, the Owner will execute and deliver to the Vendor a bill of sale of all his rights, title and interest in and to the rejected equipment. The bill of sale shall not abrogate the Owner's right to recover damages for delays, losses, or other conditions arising out of the basic Contract.

#### **1.11 WARRANTIES**

- A. A two-year manufacturer's warranty shall be provided.
- B. The Vendor guarantees that the equipment to be furnished under this Contract shall be free from defect or flaws shall be in accordance with the specifications. That the strength of all parts of all manufactured equipment shall be adequate and that the performance test requirements of the specifications shall be fulfilled. The guarantee period shall be in accordance with the specifications. The Vendor shall repair or replace as required, promptly and without charge, all work, equipment, and material or parts thereof, which fail to meet the above guarantee during the period herein quoted. The Owner will ship the failed unit during the guarantee period to the Vendor.
- C. The guarantee period shall in no way affect the Owner's right of recovery for breach of any express or implied warranties and as such shall be governed by N.J.S.A. 12:-1-1 et seq. and any other applicable remedies.

## 2.0 PRODUCTS

### 2.01

- A. Actuator - The actuator shall consist of a three-phase electric motor, worm gear reduction, absolute position encoder, electronic torque sensor, mechanically and electrically interlocked reversing motor contactor, electronic control, protection, and monitoring package, manual override handwheel, valve interface bushing, 32-character graphical LCD (Liquid Crystal Display), and local control switches all contained in an enclosure that is sealed to NEMA 4, 4X, 6, IP68 to 15M for 96 hours. Actuator design life shall be one million drive sleeve turns.
- B. Power Transmission - The power transmission shall be completely bearing-supported and consist of a hardened alloy steel worm and bronze alloy worm gear, oil-bath lubricated using synthetic oil designed specifically for extreme pressure worm and worm gear transmission service. The motor shall be three-phase/60-cycle, 480V with Class F insulation and a thermistor embedded within the motor windings to prevent damage due to overload. The motor shall be easily removed through the use of a plug-in connector and shaft coupling.
- C. Valve Position – Valve position shall be sensed by an 18 bit, optical, absolute position encoder with redundant position sensing circuits designed for Built-in-Self-Test (BIST). Each of the position sensing circuits shall be redundant permitting up to 50% fault tolerance before the position is incorrectly reported. The BIST feature shall discern which failures signal a warning only and which require a warning plus safe shutdown of the actuator. Open and closed positions shall be stored in permanent, nonvolatile memory. The encoder shall measure valve position at all times, including both motor and handwheel operation, with or without power present, and without the use of a battery. The absolute encoder will be capable of resolving  $\pm 7^\circ$  of output shaft position over 10,000 output drive rotations.
- D. Electronic Torque Sensor – An electronic torque sensor shall be included. The torque limit may

be adjusted from 40-100% of rating in 1% increments. The motor shall be de-energized if the torque limit is exceeded. A boost function shall be included to prevent torque trip during initial valve unseating and a “Jammed Valve” protection feature, with automatic retry sequence shall be incorporated to de-energize the motor if no movement occurs.

- E. Control Module – The control module shall include power and logic circuit boards, control transformer, and at least two primary power protection fuses, all mounted to a steel plate and attached in the control compartment with captive screws. The use of O rings or other such devices to secure the control boards shall not be permitted. The module shall be easily removed through the use of plug-in connectors. The module shall also include a reversing contractor, local control switches, 32-character graphical LCD, and LED indicators. All internal wiring shall be flame-resistant, rated 105°C and UL/CSA listed.
- F. Reversing Contactor – The reversing contactor shall be mechanically and electrically interlocked to prevent simultaneous energizing of the open and close coils. The control module shall also include an auto reversal delay to inhibit high current surges caused by rapid motor reversals. The control transformer shall include vacuum-impregnated coils and dual primary fuses.
- G. Phase Correction – A phase correction circuit shall be included to correct motor rotation faults caused by incorrect site wiring. The phase correction circuit shall also detect the loss of a phase and disable operation to prevent motor damage. The monitor relay shall trip and an error message shall be displayed on the LCD screen when loss of phase occurs.
- H. Discrete Remote Control – Discrete remote control may be configured as 2, 3, or 4 wires for open-stop-close control. Remote control functions may be powered by external 24 VDC, 125 VAC, or the actuator’s internal supply 24 VDC supply. The voltage values for signal threshold shall be 19.2V AC/DC and 5.0V AC/DC respectively. The maximum load for 24VDC is 2mA. The internal supplies shall be protected against over-current and short-circuit faults and utilize optical isolation to minimize electro-magnetic interference. Discrete control shall have an isolated common.
- I. Emergency Shut Down (ESD) – ESD provision shall be included in each actuator. The actuator shall permit up to three inputs for ESD and they shall be configurable. The ESD signal shall over-ride any existing signal (except LOCAL, STOP, and INHIBIT) and send the valve to its configured emergency position. The ESD may be configured to over-ride LOCAL, STOP, and/or INHIBIT. Provision for an isolated common shall be provided.
- J. Inhibit – Inhibit movement provision shall be included in each actuator. The actuator shall permit up to three inputs for Inhibits and they shall be configurable. Provision for an isolated common shall also be provided.
- K. Terminals – Terminals shall be included to connect the electronic controls package, including display, to a backup 24 VDC power source. As a standard alternative, the actuator shall have the ability to maintain the status and alarm contacts in order to update status to the control room and

also provides status visibility on the LCD screen. It should be configurable for at least one hour and once main power is restored, be available for the next unforeseen power outage. The use of an integral battery is prohibited.

- L. Dedicated Circuit – A dedicated circuit to prevent undesired valve operation in the event of an internal circuit fault or erratic command signal shall be included. A single point failure will not result in erratic actuator movement. An open or short-circuit in the internal circuit board logic shall not energize the motor contactor, nor shall a single fused control relay contact fail to de-energize the motor contactor. The command inputs shall be optically coupled and require a pulse width of at least 250 ms to 350 ms to turn on or off. In the event of an internal circuit fault, an alarm shall be signaled by tripping the Monitor Relay and through LCD indication.
- M. Four Latched Status Contacts – Four latched status contacts rated 125 VAC, 0.5A and 30 VDC, 2 amps shall be provided for remote indication of valve position, configures as 1-N/O and 1-N/C for both the open and closed positions. Two contacts may be configured to represent any other actuator status, mid-travel position, switched to local, overtorque, motor over-temperature, manual operation, switched to remote, switched to stop, valve moving, close torque switch, open torque switch, hardware failure, ESD active, inhibits active, valve jammed, analog IP lost, lost phase, and network controlled.
- N. Monitor Relay – A monitor relay shall be included and shall trip when the actuator is not available for remote operation. Both N/O and N/C contacts shall be included, rated 125 VAC, 0.5A and 30 VDC, 2 amps. The monitor relay shall be configurable for three additional fault indications – lost phase, valve jammed, and motor overtemp. The yellow LED shall blink when the monitor relay is active.
- O. Actuator Control Panel (ACP) – The ACP cover and module shall use solid-state Hall-effect devices for local communication and configuration. The use of reed switches on the module is prohibited. A 32-character, graphical LCD shall be included to display valve position as a percent of open 0-100%, and current actuator status. “STATUS OK” shall be displayed for an operable actuator. If the actuator is not operable, the appropriate alarm shall be displayed. The alarm shall be continuously displayed until the actuator is operable. Red, green, and yellow LEDs shall be included for open, close, stopped, and moving indication. The red and green LEDs shall be reversible. A padlockable LOCAL-STOP-REMOTE switch and an OPEN-CLOSE switch shall be included for local valve actuator control. The control switches shall not penetrate the controls cover and shall be designed to electrically isolate the actuator’s internal components from the external environment. The OPEN-CLOSE switch may be configured for maintained or push-to-run (inching) control.
- P. Non-Intrusive – The device shall be non-intrusive. All calibration shall be possible without removing any covers and without the use of any special tools. All calibration shall be performed in clear text languages, no icons shall be used. All calibration shall be performed by answering the “YES” and “NO” questions displayed on the LCD. “YES” is signaled by using the OPEN

switch and “NO” by using the CLOSE switch, as indicated adjacent to the switches. A configurable password option shall be available to prevent unauthorized changes.

- Q. Double-Sealed Terminal Compartment and Terminal Block – All customer connections shall be located in a terminal chamber that is separately sealed from all other actuator components. Site wiring shall not expose actuator components to the environment. The internal sealing within the terminal chamber is suitable for NEMA 4, 6, and IP68 to 15M for 96 hours. The chamber shall include screw-type terminals, three for power and 54 for control, for site connections. Three conduit entries, available as (2) – 1.25” NPT (M32) and (1) – 1.5” NPT (M40) shall be located in the terminal chamber.
- R. Coatings – The actuator shall be coated with a polymer powder coat. The coating system shall be suitable for an ASTM B117 salt spray test of 1,500 hours. External fasteners shall be high-strength carbon steel, zinc plated, chromate-hexavalent coated, and then top coated with a high-strength, high-endurance polymer. The fasteners shall be suitable for an ASTM B117 salt spray test of 500 hours.
- S. Handwheel and Declutch Lever – A handwheel and declutch lever shall be provided for manual operation. The handwheel shall not rotate during electric operation nor can a seized motor prevent manual operation. Changing from motor to manual operation is accomplished by engaging the declutch lever. Energizing the motor shall return the actuator to motor operation. The declutch lever shall be padlockable in the motor position. The actuator shall include a removable **torque or thrust bushing** to mate with the valve shaft.
- T. Diagnostics – Diagnostic facilities shall be included to accumulate and report the performance of the motor, encoder, contactor, cycle time, handwheel operations, actuator ID, firmware revision, and output turns. In addition, a torque profile of the reference baseline valve stroke and the last valve stroke shall be included. A feature for re-set shall be provided. All diagnostic information shall be displayed on the LCD. Diagnostics shall also include an FDA (Frequency Domain Analysis) feature. The FDA methodology shall capture torque, position or speed values at regular time intervals while the actuator is motoring, and calculate the resulting data set with a Fast Fourier Transform (FFT). The resulting information shall be used to isolate any components in the mechanical drive train that may exhibit excessive wear or may effect normal actuator operation. FDA and resultant fault indications shall be displayed via the graphical LCD. The actuator shall contain the ability for diagnostics information to be downloaded to a PC or PDA via IRDA.
- U. Factory Testing – Every actuator shall be factory tested to verify rated output torque, output speed, handwheel operation, local control, control power supply, valve jammed function, all customer inputs and outputs, motor current, motor thermistor, LCD and LED operation, direction of rotation, microprocessor checks and position-sensor checks. A report confirming successful completion of testing shall be included with the actuator.
- V. Auxiliary Control Station – An auxiliary control station which will be remotely located from the

actuator shall be provided in a separate enclosure for control of the actuator. The enclosure shall meet the same requirements as the actuator and shall be suitable for either surface mounting or stanchion mounting. The control station shall include two selector switches (one for OPEN-STOP-CLOSE) function and two lights for position indication (RED for OPEN and GREEN for CLOSED). The other selector switch shall include three positions (LOCAL-OFF-REMOTE). The selector switch shall be padlockable in each position. The enclosure shall have two conduit entries for control wiring.

## **2.02 MANUFACTURERS**

- A. The following manufacturers are named to establish a standard of quality necessary for the project:
  - 1. Limitorque Model No. MX-40 W/B320-40
  - 2. Or equal.

## **2.03 SHOP TEST**

- A. Motor Test
  - 1. Give each motor a standard commercial test in the shop of the motor manufacturer and submit certified copies of the test results to the Owner for review prior to installation of the motors.
- B. Actuator Testing
  - 1. Test performance of each actuator. Provide individual test certificates at no additional cost to the Owner, simulate a typical valve, gate or equipment load, and record the following parameters:
    - a. Current at maximum torque setting.
    - b. Torque at maximum torque setting.
    - c. Test voltage and frequency.
    - d. Flash test voltage.
    - e. Actuator output speed or operating time.
  - 2. Test housing oil tightness, 30 psi for two minutes.
  - 3. Insulation test on motor and control circuit.

4. In addition, record details of specification on the test certificate, such as gear ratios for both manual and automatic drive, closing direction, wiring diagram code number, and when applicable, remote transmitter resistance and interposing relay voltage.
- C. In the event that specified tests indicate that motor or actuator will not meet specifications, the Owner has the right to require complete witnessed tests for all motors and actuators at no additional cost to the Owner.
1. Repeat tests until specified results are obtained.
  2. Correct or replace promptly all defects or defective equipment revealed by or noted during tests at no additional cost to the Owner.

#### **2.04 PREPARATION FOR SHIPMENT**

- A. Preparation for shipment shall be in accordance with the manufacturer's standard shipping procedures.
- B. One complete set of instruction books and "as-built" drawings shall be included with the equipment when shipped.

### **3.0 EXECUTION**

#### **3.01 SERVICES OF FACTORY-TRAINED SERVICE TECHNICIAN**

- A. The Vendor shall arrange for a factory-trained service technician to verify that the installation has been completed and the equipment is ready for operation. The factory-trained service technician shall inspect, operate, test, and adjust the equipment.
- B. On completion of the installation by Owner's personnel, the factory-trained service technician shall submit a complete signed report of the result of the inspection, operation, adjustments, and test. The report shall include detailed descriptions of the points inspected, tests and adjustments made, quantitative results obtained if such are specified, and suggestions for precautions to be taken to ensure proper maintenance. The report also shall include a certificate that the equipment conforms to the requirements of the Contract and is ready for permanent operation and that nothing in the installation will render the manufacturer's warranty null and void.

#### **3.02 FIELD PERFORMANCE TESTS**

- A. After installation of equipment, and after inspection, operation, testing and adjustment have been completed by manufacturer's field service engineer, conduct running test for each actuator in presence of Engineer to determine its ability to operate without vibration or jamming and to operate at the speeds specified. During tests, observe and record motor inputs. Promptly correct or replace all defects or defective equipment revealed by or noted during tests, at no additional

cost to the Owner, and repeat tests until specified results and results acceptable to the Owner are obtained. The Vendor shall provide all labor, equipment, and materials necessary for conducting tests.

- B. Make all adjustments necessary to place equipment in specified working order at time of above tests.
- C. Remove and replace equipment at no additional cost to the Owner with equipment that will meet all requirements specified and indicated if unable to demonstrate to satisfaction of the Engineer that units will perform the service specified and indicated.

### **3.03 STARTUP, EQUIPMENT TRAINING, AND SUPPORT**

- A. The Vendor shall provide the services of a factory-trained service technician to provide startup services.
- B. The Vendor shall provide electric actuator training by a manufacturer's trained and authorized instructor.
- C. The objective of all training is to provide Owner's plant personnel with sufficient information and training of the theory, design, and site specific operation and maintenance practices.
- D. Training shall be "hands-on" training. Instructors travel time will not be included in the training hours above.
- E. After the specified training is complete, the Vendor shall be available to the Owner to answer any questions.

**THE OCEAN COUNTY UTILITIES AUTHORITY  
CHECKLIST**

BID NO. EA-12-276 ITEM: ELECTRIC ACTUATORS

PLEASE VERIFY THAT THE LISTED ITEMS ARE SUPPLIED AND HAVE BEEN FULLY AND PROPERLY EXECUTED AND, ON MAKING THAT VERIFICATION, CHECK OFF EACH ITEM:

- |  |                     |
|--|---------------------|
| 1. BID PROPOSAL (SIGNED)   | _____               |
| 2. ALL ARITHMETIC IN BID PROPOSAL CHECKED                                | _____               |
| 3. BID BOND (SIGNED, SEALED, WITH POWER OF ATTORNEY)                     | <u>NOT REQUIRED</u> |
| 4. CHECK, IF SUPPLIED IN LIEU OF BID BOND (CERTIFIED OR CASHIER'S CHECK) | <u>NOT REQUIRED</u> |
| 5. AGREEMENT OF SURETY (SIGNED)  | <u>NOT REQUIRED</u> |
| 6. OWNERSHIP STATEMENT   | _____               |
| 7. NON-COLLUSION AFFIDAVIT (SIGNED AND NOTARIZED)                        | _____               |
| 8. AFFIRMATIVE ACTION QUESTIONNAIRE                                      | _____               |
| 9. COPY OF BIDDER'S NEW JERSEY BUSINESS REGISTRATION CERTIFICATE         | _____               |
| 10. ONSITE HAZARDOUS/NONHAZARDOUS SAFETY PRECAUTIONS                     | <u>NOT REQUIRED</u> |
| 11. SUBMITTALS   | _____               |
| 12. CHECKLIST  | _____               |

I hereby state that the goods or services offered by this bid shall be provided exactly as set forth in the specifications, without exception of any kind, unless said exception is specifically stated in writing as a part of this bid. With respect to any such exception, I recognize that the Authority reserves the right to reject any bid which, by reason of exceptions taken, is in the Authority's judgment non-conforming to the specifications.

I hereby certify that I have read the proposal submitted herewith and that I am authorized to make this proposal on behalf of the business entity whose name appears in it. I further certify that all items listed and all computations are accurate and have been verified.

I hereby certify that the foregoing statements made by me are true and recognize that if any statement made herein is willfully false I am subject to punishment.

SIGNATURE OF BIDDER: \_\_\_\_\_ DATE: \_\_\_\_\_

**PLEASE PRINT OR TYPE:**

NAME AND TITLE: \_\_\_\_\_

BUSINESS NAME & \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

BID FORM

This bid will not be accepted after 11:30 a.m., prevailing time, on January 18, 2012, at which time all bids will be publicly opened and read.

The Undersigned Bidder hereby acknowledges receipt of the following addenda:

<u>ADDENDUM NO.</u>	<u>DATE</u>
_____	_____
_____	_____
_____	_____

THE FOLLOWING PROPOSAL IS HEREBY MADE TO:

The Ocean County Utilities Authority  
501 Hickory Lane  
Bayville, New Jersey 08721

The Undersigned Bidder hereby certifies that he has carefully read and understands the requirements set forth in the Advertisement for Bids, Instructions to Bidders, General and Technical Specifications and the Bid Form and offers the following Bid:

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>	<u>EXTENDED PRICE</u>
1	3ea    Furnish and Deliver Three (3) Electric Actuators and Appurtenances for CPS-9, as per the specifications.	_____	_____
2	2        Man-Days of Start-up, Field Services and Training, as per the specifications.	_____	_____

**MANUFACTURER PROPOSING:** \_\_\_\_\_

**TOTAL BID AMOUNT** \_\_\_\_\_

If the bidder is a Corporation, give the following information:

Name of Company \_\_\_\_\_

Business Address \_\_\_\_\_

Tax ID # \_\_\_\_\_

Telephone # \_\_\_\_\_ FAX # \_\_\_\_\_

Signature of Bidder \_\_\_\_\_  
(Name & Title)

Incorporated under the laws of the State of \_\_\_\_\_.

President \_\_\_\_\_  
(Name)

Secretary \_\_\_\_\_  
(Name)

Treasurer \_\_\_\_\_  
(Name)

Dated: \_\_\_\_\_ (AFFIX CORPORATE SEAL HERE)

If the bidder is a Partnership, Individual, or Non-Incorporated Organization, give the following information:

Name of Company \_\_\_\_\_

Business Address \_\_\_\_\_  
\_\_\_\_\_

Tax ID # \_\_\_\_\_

Telephone # \_\_\_\_\_ FAX # \_\_\_\_\_

Signature of Bidder \_\_\_\_\_  
(Name & Title)

Names and Addresses of  
Members of Company \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OWNERSHIP STATEMENT

If the Bidder is a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the Bidder, in compliance with P.L. 1977, Chapter 33, shall submit, with his bid, the following statement setting forth the names and addresses of all stockholders or individual partners who own 10% or more of its stock or interest. If one or more such stockholder or partner is itself a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed.

**IF NONE, SO STATE or CHECK HERE**

INDIVIDUAL

ADDRESS

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

I certify that the foregoing information is correct.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name of Title

**NON-COLLUSION AFFIDAVIT**

STATE OF

SS:

COUNTY OF

I, \_\_\_\_\_, of the City of \_\_\_\_\_, in the County of \_\_\_\_\_, and the State of \_\_\_\_\_, of full age, being duly sworn according to law, on my oath, depose and say that:

I am \_\_\_\_\_, (Title), of the firm of \_\_\_\_\_, the Bidder,

making the Bid for the following named project: \_\_\_\_\_, and that I executed the said Bid, with full authority to do so; that said Bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the above named project; and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that The Ocean County Utilities Authority relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the contract for said project.

I further warrant, that no person or selling agency has been employed, or retained, to solicit or secure, such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by \_\_\_\_\_ (N.J.S.A. 52:34-15).

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
(Type or print name of affiant)

Subscribed and sworn to before me this  
day of \_\_\_\_\_, 20 .

\_\_\_\_\_  
Notary Public of

My commission expires \_\_\_\_\_, 20 .  
(Seal)

**AFFIRMATIVE ACTION QUESTIONNAIRE**

PLEASE COMPLETE THIS QUESTIONNAIRE AND RETURN IT WITH YOUR BID. IN THE EVENT YOUR COMPANY IS AWARDED A CONTRACT WE WILL PROVIDE YOU WITH THE PROPER FORM AS YOU HAVE INDICATED.

DOES YOUR COMPANY HAVE A FEDERAL APPROVED AFFIRMATIVE ACTION PLAN?

YES ( )                      NO ( )

**\*IF YES, SUBMIT A PHOTO COPY OF THE FEDERAL LETTER OF APPROVAL (FEDERAL LETTER MUST BE LESS THAN ONE YEAR OLD)**

**\*IF NO, DOES YOUR COMPANY HAVE N.J. STATE CERTIFICATE OF EMPLOYEE INFORMATION REPORT>**

YES ( )                      NO ( )

**\*IF YES, SUBMIT A PHOT COPY OF THE CERTIFICATE.**

**\*IF NO, AN AFFIRMATIVE ACTION EMPLOYEE INFORMATION REPORT (A.A.302) WILL BE PROVIDED TO YOU AT THE TIME OF AWARD.**

I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO BEST OF MY KNOWLEDGE.

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_