



REQUEST FOR PROPOSALS TITLE PAGE

Include This Page as the First Page in Your Proposal Response

City of Lynchburg, Virginia

Procurement Division

Proposal Title: DEWATERING CENTRIFUGE CONTROL PANEL AND BACK DRIVE UPGRADE:

This is the City of Lynchburg's Request for Proposals (RFP) No.15-931, issued August 6, 2014. Direct inquires for information should be directed to Lisa Moss: e-mail: lisa.moss@lynchburgva.gov; Phone: 434-455-4228; Fax: 434-845-0711. All requests for clarification of or questions regarding this RFP must be made in writing and received by **11:00 A.M., August 26, 2014**. All responses to this solicitation shall be in strict accordance with the requirements set forth in this RFP document and the ensuing contract documents.

An optional Pre-Conference Meeting will be held on August 18, 2014 at 2:00 P.M. at the WWTP Conference room 2301 Concord Turnpike, Lynchburg, VA.

Sealed proposals will be publicly accepted prior to **4:00 p.m., September 10, 2014**, however, only the names of Proposors responding will be available for announcement. Proposals received after the stated due date and time shall not be considered. Submit proposals in a sealed, opaque envelope, and put the RFP number, title, due date and time on the lower left front. Offerors are responsible for having their proposal stamped by Procurement Division staff before the deadline indicated above and acknowledge all addenda so issued in the space provided below. Any alteration or changes to this RFP will be made only by written addendum issued by the Procurement Division, and all Offerors are responsible for obtaining issued addenda from the City's Procurement website: <http://www.lynchburgva.gov/current-solicitations>

Acknowledge receipt of addenda here: No. _____ Date: _____ No. _____ Date: _____

Submit Proposals: BY MAIL, GROUND DELIVERY, OR HAND DELIVER TO:

Procurement Division
Third Floor City Hall
900 Church Street
Lynchburg, Virginia 24504

Information the Offeror deems Proprietary is included in the proposal response in section(s): _____

See Paragraph B. on page 2 for guidelines on submitting proprietary information.

In compliance with this Request for Proposals and all the conditions imposed therein, the undersigned offers and agrees to furnish the services in accordance with the attached proposal or as mutually agreed by subsequent negotiations. By my signature below, I certify that I am authorized to bind the Offeror in any and all negotiations and/or contractual matters relating to this Request for Proposals. Sign in ink and type or print requested information.

Full Legal Name of Offeror: _____

Fed ID OR SOC. SEC. NO.: _____ Date: _____

Address: _____ Phone: () _____

_____ Fax: () _____

Signature: _____

Typed or Printed Name, Title

Buyers Signature

I. SUBMISSION OF PROPOSALS

- A. An original, so marked, and five (5) copies, so marked, for a total of six (6) copies of the Proposal document are required. In addition, one (1) copy of the Proposal in an electronic format, disk or CD in Microsoft Word format or PDF file must accompany the Proposal. The City will not assume responsibility for reproduction where an insufficient number of copies have been supplied. In any such case, the City will notify the Offeror of the deficiency and request that the appropriate number of copies be delivered within 24 hours. Failure to comply with this or other requirements of this RFP shall be grounds for the City to reject such Proposals. Telegraphic or facsimile submission of Proposals will not be considered. Nothing herein is intended to exclude any responsible bank or in any way restrain or restrict competition. All responsible Offerors are encouraged to submit Proposals. The content of the RFP and the successful Offeror's Proposal will become an integral part of the Contract, but may be modified by provision of the Contract. Offerors must be amenable to inclusion in a Contract any information, exclusive of that which is determined to be proprietary, provided either in response to this RFP or subsequently discussed and agreed upon during the selection/negotiation process. The information received will be considered contractual in nature, and will be used in validation and evaluation of Proposals, and in subsequent actions related to Contract execution and performance of responsibilities.
- B. **Submission of Proprietary Information:** Trade secrets or proprietary information submitted by an Offeror in connection with the submittal shall not be subject to public disclosure under the Virginia Freedom of Information Act. However, the Offeror must invoke the protection of this Section prior to or upon submission of the data or the materials, and must identify the data or the materials to be protected and state the reason why protection is necessary (Section 2.2-4342 of the Code of Virginia). Offerors shall submit, in a separate section of the Proposal, any information that is considered proprietary and copyrighted material, and clearly identify the information as proprietary and/or copyrighted information. Offerors may not declare the entire Proposal proprietary nor may the Offeror declare proposed pricing as proprietary. References may be made within the body of the Proposal to proprietary information; however, all information contained within the body of the Proposal and not in the separate section labeled proprietary shall be considered public information.
- C. Proposals having any erasures or corrections must be initialed in ink by the Offeror.
- D. The City reserves the right to accept or reject any or all Proposals, to waive informalities, and to reissue any RFP and to award a Contract in the City's best interest. The City reserves the right to contract with Proposors not party to the resultant Contract if determined to be in the City's best interest.
- E. By submitting a Proposal response, the Offeror agrees that the Proposal response will not be withdrawn for a period of one hundred eighty (180) days following the due date for Proposal responses.
- F. By submitting a Proposal response, the Offeror certifies not to have conspired or agreed to intentionally alter or otherwise manipulate the Proposal response for the purpose of allocating purchases or sales to or among persons, raising or otherwise fixing the prices of the goods or services, or excluding other persons from conducting business with the City.
- G. By submitting a Proposal response, the Offeror certifies the Proposal is made without collusion or fraud and the Offeror has not offered or received any kickbacks or inducements from any other Offeror, supplier, manufacturer or subcontractor in connection with the Proposal; and, the Offeror has not conferred with any public employee having official responsibility for this procurement transaction, any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised.
- H. The City will not be responsible for any expense incurred by any Offeror in preparing and submitting a Proposal response. All Proposals submitted will become the property of the City.
- I. The City does not discriminate against faith-based organizations.

- J. **COOPERATIVE PROCUREMENT:** This procurement is being conducted by the City of Lynchburg in accordance with the provisions of 2.2-4304 CODE OF VIRGINIA. Except for contracts for architectural and engineering services, if agreed to by the contractor, other public bodies may utilize this contract. The Contractor shall deal directly with any public body it authorizes to use the contract. The City, its officials and staff are not responsible for placement of orders, invoicing, payments, contractual disputes, or any other transactions between the Contractor and any other public bodies, and in no event shall the City, its officials or staff be responsible for any costs, damages or injury resulting to any party from use of a City Contract. The City assumes no responsibility for any notification of the availability of the contract for use by other public bodies, but the Contractor may conduct such notification.
- K. It is the policy of the City of Lynchburg to maximize participation by minority and women owned business enterprises in all aspects of City contracting opportunities.

II. PURPOSE

The purpose of this RFP is to solicit proposals from qualified contractors to provide the furnishing, testing and placing in satisfactory operation (2) control panel sub-systems with ancillary equipment for the (2) existing DS706 Sharples centrifuges. The work also includes supplying (2) new back drive sub-panels, (2) 2500 rpm, TEFC centrifuge duty back drive motors, field start-up services of a qualified representative during the installation start-up and field-testing period and a field operating performance test of the control panels. The initial proposal should include modernization of control scheme, two step start with soft start and replacement of Backdrive from DC to AC as detailed in this document.

III. SCOPE OF PROJECT:

Replacement to include the following items:

Electrical- (Proposal must indicate which option selected)

Main Motor:

- A. **OPTION 1:** - VFD Drive or Soft-Start (**Reuse existing motors if soft start option is chosen**)
 - Allowable manufacturers: Allen Bradley, ABB, Square D (Altivar series soft-start), or Benshaw
 - OPTION 2** - Replace with two(2) new 300 Hp motors if VFD option is chosen (please include price for spare motor)
 - Allowable manufacturers: Reliance, U.S. Motors

B. Replacing Power Wiring

Backdrive Motor

- A. Replace existing 100 Hp DC motor with comparable 480V, 3 phase AC motor
 - Allowable manufacturers: Reliance, U.S. Motors
- B. VFD drive
 - Allowable manufacturers: Allen Bradley, ABB, or Benshaw
- C. Replace existing power feed wiring (T Leads)

Control System

- A. PLC
 - 1. Shall be Allen Bradley, ControlLogix or CompactLogix, Proposorware Firmware version 20.
 - 2. Shall be provided with ENET Ethernet adapter and at least one available port for plant use

3. Proprietary or “locked” code is not acceptable unless data parameters are made accessible to existing plant SCADA system via Ethernet/IP.

B. HMI

1. Shall be Allen Bradley PanelView Plus series (minimum 15 inch screen) capable of running FactoryTalk ME version 5 through 7
2. Screen shots shall be furnished for review and approval prior to installation

CRANE OPERATION:

The contractor and any subcontractors working on the upgrade project will be allowed to utilize the overhead hoist located on the third floor of the centrifuge building.

All contractor personnel assigned to the operation of the overhead hoist must be preapproved for competency of operation by the DWR Safety Coordinator. All pertinent safety procedures must be followed. If hoist is needed above the existing capacity or accessibility, the Contractor will supply.

A. Hoist usage by Contractor during Centrifuge Upgrade Project:

1. There are three hoists:
 - One rated at 7.5 tons (15,000 lbs)
 - One rated at 3 tons (6,000 lbs)
 - One smaller electric chain hoist used for smaller items.

All rigging equipment such as straps, cables, chains and associated devices will be the responsibility of the contractor or subcontractor to provide. Other than the hoist, the WWTP will not provide any other hoisting or rigging equipment.

2. The contractor or subcontractor is responsible:
 - To ensure that all employees working with or around any hoisting and rigging equipment are trained, qualified, and understand the operations of the hoist.
 - To make sure any equipment hoisted is within the load limits of the hoisting system. If a hoisting system is overloaded and damaged the contractor will be responsible for the damage.
 - To make sure all hoisting and rigging equipment used meets the necessary load bearing requirements and has been inspected as required.
 - All employees working around a hoisting operation must wear the appropriate PPE which would include Hard Hats, Steel Toe shoes, and High Visibility Garments.

An employee from the WWTP will review the hoist operations with the appropriate supervisor prior to start of the project. If the DWR Safety Manager becomes aware of any improper operation of any hoist or that inappropriate rigging equipment is in use, the hoisting operation will be stopped until the contractor or subcontractor can correct the situation.

EQUIPMENT:

All equipment must be compatible with existing equipment. Motors are belt driven. All motor mounts, belt guards and ancillary equipment must meet current industry standards. Accessibility and weights beyond the limits of the facility lifting devices are the responsibility of the Contractor.

A. Proposal must include the following:

- (1) Required Schedule of Values of each piece of equipment
- (2) Breakdown of work schedule by week
- (3) Experience letters of all critical personnel.
- (4) Contact references including names and numbers from similar jobs.

MISCELLANEOUS

- A. System shall be furnished complete, capable of stand-alone operation.

B. Control cabinet shall include a dual conversion type UPS (TripLite or equal) with status outputs wired to PLC, for protection of PLC and HMI

C. Each centrifuge shall be 100% stand alone to allow independent operations with no shared components. Both units shall use identical equipment, hardware, software, programming etc.

QUALITY ASSURANCE

Design, fabricate, and assemble the centrifuge control panel sub-systems, back drive sub-panels, and ancillary equipment in accordance with the latest modern engineering and shop practices. Centrifuge control panel modifications to be the product of a supplier regularly engaged in the design and manufacture of centrifuge control panels to insure compatibility of all components with the existing centrifuges. The provider of the panel sub-systems and ancillary equipment must have technical help readily available to resolve potential centrifuge control questions as well as process problems.

MATERIALS

General: A new sub-system shall be provided for each of the (2) existing free standing enclosures, along with a new back drive sub-panel. Each new door shall fit precisely onto each existing panel enclosure and be painted the matching color. A new AC 2500 rpm TEFC centrifuge duty back drive motor shall also be provided for each centrifuge.

Control Panel Section: The new control panel door shall include, at a minimum, a backlight color 15 inch minimum touch screen TFT operator interface unit with interactive screens for indication and control of all major components.

All components in the control panel door and sub-panel shall be completely factory wired. All external control connection points shall terminate on terminal blocks. Existing wiring lengths must reach lugs or rewire as needed. No splicing of control wiring. Door front should include an externally operated disconnect with safety latch.

The back drive shall be controlled by the PLC with programmable logic for integral automatic back drive control, which controls delta rpm in the speed control mode, and scroll torque in the automatic control mode. The programmable logic shall contain algorithms to provide control under various process conditions and enhance performance through the use of high resolution digital I/O, speed monitoring, and advanced PID Auto-tuning. In the automatic mode, back drive speed is automatically adjusted to maintain constant torque, thereby compensating for varying feed characteristics while optimizing residence time and separation for improved cake dryness. The unit also provides digital display of bowl speed, pinion speed, delta rpm, and torque. Applicable set point values are entered via a touchpad.

The operator interface unit shall consist of a backlight color 15 inch minimum touch screen TFT display and shall provide a continuous digital indication of bowl speed, differential speed, and torque, as well as other operational parameters such as vibration. It shall also show a system layout displaying the status of each component within the system.

Operator device functions described below shall be provided through software menus and function keys on the operator interface unit.

The operator interface functions described below shall be provided through icons, menus and soft function keys. The operator interface unit shall be supplied with a dual conversion type UPS (Triplite or equal) with status outputs wired to PLC battery back-up capability so all programs and settings are retained if a power supply failure occurs. The PLC and associated operator interface unit shall operate off an internal 120 VAC power supply.

The operator interface unit shall be capable of automatic or manual start/stop operations via the system displays, as well as provide display readings of the following: centrifuge drive motor amps, fault monitoring, and pre-set and actual timing operations, local/remote control status, and auto/manual control status, back drive torque, back drive speed, differential speed, bowl speed and vibration as described in this specification.

Control wire shall be #16 AWG minimum type MTW (internal panel wiring) or #14 AWG minimum type

XXHW (field wiring), shall conform to UL standards. Power wiring shall be black and sized as required. AC control wiring shall be red. The AC neutral shall be white. The ground shall be green. DC control wiring shall be blue. Shield cable shall be #18 AWG minimum.

A ground lug shall be supplied on the panel. The panel door shall have a ground strap to the main panel. All customer interface contacts are provided through isolated 10 amp interposing relays. Contacts shall be suitable for 24 VDC or 120 VAC control. The PLC shall provide 120 VAC control voltage for all external inputs. All inputs and outputs shall be electrically isolated.

AC Back Drive Section: The Adjustable Frequency Drive for controlling the back drive motor shall be an Allen Bradley, ABB, or Benschaw drive for an AC motor with encoder that includes the following features:

Displacement power factor ranges between 1.0 and 0.95, lagging, over the entire speed range.

An efficiency of the drive is a minimum of 97% at full load and speed.

Output voltage adjustable from 0 to rated motor voltage up to 690V.

Output frequency range adjustable from 0 to 120 Hz.

Inverter section using latest generation IGBTs.

Megger Test report of all cables to infinity over 120 VAC by qualified third party vendor.

Internal Common Mode Cores on the drive output

Gold plated plug-in connections on printed circuit boards.

Rated Current continuously

150% Overload capability for up to 1 minute

200% Overload capability for up to 3 seconds

Drive must operate from 480V, 3PH, 60Hz with voltage variations plus 10% or minus 20%.

Capability to be programmed and display all speed values in either Hertz or RPM.

All settings and adjustments are stored in nonvolatile memory (EEPROM). No potentiometer adjustments are used.

DC Bus regulation to reduce the possibility of drive over voltage trips due to regenerative conditions. Prefer “flying start” option.

Programmable current limit from .1 amps to 150% of drive rated amps.

MOV protection - phase to phase and phase to ground.

CENTRIFUGE SYSTEM CONTROL SCHEME

General: Functional control strategies for the centrifuge system are described herein. Provide all accessories and appurtenances required for the proper operation of the system as described.

A. Minimum Required Controls: Provide as a minimum the following local controls:

Lube Oil Pump - START/STOP, control of lube oil pump. Interlock the lube oil pump and main drive such that the main drive cannot run unless the lube oil pump is running and there is lube oil flow.

Modes of Operation – SPEED/AUTO TORQUE

BACK DRIVE - DIFFERENTIAL, NORMAL / HIGH

CLEAN CYCLE - START/STOP control and FORWARD/REVERSE status lights for back drive clean-in-place operation. Provide automatic clean-in-place timers, flush valve controls and differential adjustment controls as an integral part of the system.

"Power On" light, indicating power available to centrifuge control panel.

"On-Off" lights, indicating status of centrifuge, back drive, lube oil pump, flushing valve.

Flush Valve - OPEN/CLOSE, for control of flush valve in manual.

Existing main motor uses WYE – Delta start/running sequence. Uses 3 outputs from PLC main relay

Auto Start sequencing up to Manual Sludge and Polymer Start based on current SOP

Auto Shutdown after Manual Stop of Sludge and Polymer based on current SOP

Emergency Shut Down: Allow for an emergency shutdown procedure in the manual mode to be provided through a separate EMERGENCY STOP push button on the front face of the panel. Provide for pushing the EMERGENCY STOP button to immediately shut off the drive motor, the sludge and polymer feed pumps manually shutdown through Run Status. Provide for the remaining sub-systems to then be stopped automatically in reverse order of starting.

PLC CONTROL SYSTEM DESIGN

This section is a representation of desired operation subject to final modification based on existing plant SOP.

The centrifuge shall be able to be started automatically or manually. To automatically start the centrifuge, press "Auto Start" key on the operator interface unit.

The PLC shall issue a "run" command to the centrifuge main drive motor and the bowl will begin to accelerate. The polymer and feed systems shall be interlocked with the centrifuge controls to prevent their operation at this time. During acceleration of the centrifuge, the PLC shall issue a "run" command to the back drive and a "start-up speed" command to the operator interface unit. This will make the back drive run at a pre-programmed start-up speed as set in the operator interface unit to provide the maximum scrolling of residual solids from the bowl. After a pre-set, timed interval, during which the bowl has reached full operating speed, the feed and polymer pumps permissive will allow them to start. As process requirements vary, the back drive speed shall be infinitely adjustable via the operator interface unit keypad, which shall maintain the set speed utilizing a closed loop, feedback. In this mode, the back drive speed shall be maintained while the torque is allowed to vary as process parameters change.

The system shall be designed so that automatic/torque mode may also be selected at any time with a bump less transfer from differential control mode. In this mode the back drive shall be maintained while the speed is allowed to vary, within pre-set limits, in order to maximize residence time. If torque begins to rise above the set point, the differential speed shall be increased to scroll solids out of the bowl at a faster rate, thereby lowering the torque to the set point.

The centrifuge shall be able to be started manually as well by pressing the appropriate keys as prompted by the manual operation screen of the operator interface unit.

Graphic and alphanumeric operating screens to provide representation of the centrifuge process status. Screens to be broken down into the following:

Main Screen – provide display of the centrifuge status and of auxiliary systems set points. Allow adjustment of set points for all components from this screen.

Centrifuge System - provide detailed display of status and for the control of the centrifuge equipment and ancillary equipment associated with the direct operation of the centrifuge.

Alarm Screen – display alarms of the centrifuge and of auxiliary systems. Display active alarms and past acknowledged alarms for an historical record.

Operating Parameter Screen (password protected) – for setup of the centrifuge timers, speeds, loops, etc.

Upon stopping the centrifuge by pressing the “Auto Stop” key on the operator interface unit, or via a fault condition, the feed and polymer system shall shut down the feed to the centrifuge. An auto flush valve will also be opened for a pre-determined time during shutdown.

Provide a Clean-In-Place (CIP) System for cleaning of the centrifuge. The CIP run cycle shall have the capability to be started anytime the main drive motor is at rest as determined by the shutdown timer. The CIP cycle shall be initiated by clearing all faults and pressing the “CIP Start” key. The back drive shall be energized and begin to rotate in the reverse direction at a low speed for a predetermined time. At the end of the set time, the back drive shall then toggle direction, causing a water “sloshing” effect within the centrifuge bowl and conveyor. The process shall continue until the predetermined overall time ends, or the “CIP Stop” key is depressed, or a fault occurs. Any shutdown fault shall terminate the CIP cycle.

Displays and Alarms: Provide the following functional displays and alarms to be indicated at the Centrifuge Control Panel on the operator interface unit screen:

Functional Displays:

- Centrifuge Off
- Centrifuge On
- Centrifuge Run
- Elapsed Time Meter
- Centrifuge Conveyor Torque, 0-100 percent
- Main drive load, showing amps status for all 3 legs simultaneously.
- Differential speed, rpm
- Wash Timer(s)
- Back drive, Torque
- Flush Water On/ Off
- Flush Valve Closed
- Flush Valve Open
- Lube Oil Pump Start
- Lube Oil Pump Stop
- Lube Pump Off
- Lube Pump On
- Liquid End Oil Flow
- Solids End Oil Flow
- Wash Cycle Off
- Wash Cycle On
- CIP Start
- CIP Stop
- Forward Clean
- Reverse Clean
- Centrifuge Vibration Alarm

Alarms:

- Main Drive Overload
- Main Drive High Temperature
- Back drive Overload
- Back drive High Torque for feed off
- Back drive High, High Torque for shut down
- Oil Pump Overload
- Low Oil Flow, Front Bearing

Low Oil Flow, Rear Bearing
High vibration for feed off alarm
Excessive vibration for shut down
Bearing temperature warning solids end
Bearing temperature warning liquid end
Bearing temperature high solids end
Bearing temperature high liquid end
Alarm Horn
Alarm Silence
Alarm Reset

CONTROL SYSTEM FAULT DETECTION:

In the event that a fault condition occurs, the sounding of an alarm horn (15 dB level above ambient noise) shall take place, and an alarm text fault message shall be displayed on the operator interface unit to facilitate trouble shooting. An alarm acknowledge push-button, mounted on the front panel, shall flash when a fault condition occurs. When pressed, the horn shall be silenced.

The following faults shall be provided and available to existing plant SCADA via Ethernet as alert conditions and shall shut off the feed pump and polymer system as required:

Scroll Torque alert
Low differential torque

The following faults shall be provided as alarms and will cause shutdown of the main drive and back drive motors:

Main motor overheat
Main drive malfunction
Excessive vibration
Back drive motor overheated
Back drive malfunction
Torque alarm
Lube Oil system Front Bearing Temperature
Lube Oil system Front Bearing Flow
Lube Oil system Rear Bearing Temperature
Lube Oil system Rear Bearing Flow

INSTRUMENTATION AND CONTROLS

General: Provide instrumentation and controls furnished as part of each centrifuge unit to include (1) centrifuge control sub-system and (1) sub-panel, complete with instruments, meters and associated components necessary to properly operate and control the centrifuge in accordance with the centrifuge system control scheme described previously.

Power: The installing Contractor shall use existing single 480-volt, 3-phase, 60 hertz power feed to the Centrifuge Control Panel and design panel using existing wires without splicing or rewiring will be required by Contractor. The installing Contractor shall furnish and install all interconnecting wiring and conduits from the centrifuge control panel to motors, control panels, control devices and appurtenances that are furnished under this section under the supervision of the centrifuge system supplier.

DESIGN AND INSTALLATION

Design: The installing Contractor shall install all centrifuge equipment and AC back drive motor in accordance with the panel manufacturer's recommendations.

Demo: The installing Contractor shall remove the existing centrifuge control panel doors and DC sub-panels, then install the new centrifuge control panel doors and sub-panels under the supervision of the panel manufacturer. Contractor shall dispose of all panels, motors, field wiring and related appurtenances

as needed regarding project.

The installing Contractor shall disconnect each existing DC back drive motor power cables and control wiring, remove each DC back drive motor, mount and align the new AC back drive motors, modify existing brackets, connect new AC cables and control wiring.

FIELD QUALITY CONTROL

Manufacturer's Field Service: Furnish the services of a qualified representative of the manufacturer to inspect the completed installation, participate in the startup of the equipment, participate in the field testing of the equipment, and place the equipment in trouble-free operation.

Tests: After installation of the centrifuge control panel sub-systems, sub-panels and AC back drive motors, subject each unit to a field test under actual operating conditions.

Field Performance Test: After installation of the control panel sub-systems and after all accessories are in operable condition, have a field performance test performed in the presence of the Owner. Conform to the following:

Subject each unit to complete manual and automatic normal start, auto torque modes, manual back drive operation, wash stop, CIP cycles, and centrifuge emergency stop cycles. Check all safety devices and the differential speed control for the back drive unit for satisfactory operation.

Correct any malfunctions appearing during the tests and perform additional testing, as required, to demonstrate that the defective or maladjusted equipment will perform satisfactorily after adjustment.

Check and adjust instruments and controls on the control panels as required. Run new AC wiring, then connect.

Perform all operations of the centrifuge unit. The Owner will supply sludge feed, polymer solution, water and power within the limits of available equipment at the time of the test. Owner's personnel will prepare the polymer solutions and operate the sludge feed and polymer feed pumps. Each centrifuge must operate for 4 weeks under normal operating procedures as deemed by the LRWWTP staff.

TRAINING:

Training to include classroom and field training for the Operations (3 hours each shift) and Maintenance staff (2 hours for mechanical and 2 hours for electrical controls). (Approx. 20 employees total) A minimum of 13 hours total training to include provisions to accommodate 3 shifts (7-3, 3-11, 11-7) on first machine retrofit. Allow a minimum of 7 days' notice to allow for scheduling.

PROJECT SCHEDULE:

Provisions should be made to allow a maximum shutdown period of 45 consecutive days beginning within 60 days after contract is awarded (pending availability of materials). Contractor shall have all materials in possession prior to construction setup.

The dewatering process is critical to the operation of the facility. Therefore, any deviation from the approved schedule will require 7 days written notice for City review.

Centrifuge #2 controls will be replaced first in 2014. Controls for Centrifuge #1 will be replaced after the Centrifuge #2 machine is properly operating for a period of 4 weeks, staff are properly trained with controls and pending availability of funds for Centrifuge #1 possibly as late as August 2015.

SUBMITTALS BY AWARDED CONTRACTOR:

System and equipment operating characteristics in printed and electronic copy prior to equipment startup.

Shop Drawings: Submit wiring diagrams, schematic control diagrams and complete description of the control systems and equipment operating characteristics in printed and electronic copy prior to construction start up.

Operation and Maintenance Manuals: Provide (4) operation and maintenance manuals in printed and electronic copy, prior to equipment startup. Equipment must be called out in manuals.

IV. PROPOSED SCHEDULE OF IMPLEMENTATION

<u>Date</u>	<u>Scheduled Item</u>
August 6, 2014	Issue Request for Proposals
August 18, 2014 @ 2 P.M.	Optional Pre Bid Conference Meeting
August 26, 2014 @ 9 A.M.	Last day to submit questions to procurement
September 10, 2014 @ 4 P.M.	Proposals Due Prior to 4:00 p.m.
4-6 weeks	City completes review of proposals and generates shortlist
TBD	City interviews selected Proposors
TBD	City begins contract negotiations, obtains administrative approvals, Contract Documents assimilated
TBD	City issues Intent to Award Contract and Executes Contract Documents
TBD	Award Contract and Issue Notice to Proceed
TBD	Kick-off Meeting with City staff and stakeholders

V. PROPOSAL PREPARATION

The proposal response must address the items included in the Scope of Services and the Criteria for Proposal Evaluation. Proposals should be prepared simply, providing straightforward and concise responses to requests for information and descriptions of qualifications and capabilities. Responses shall be limited to no more than thirty pages excluding the cover by including all other materials. Each copy of the proposal must be bound with all documentation in a single volume where practical. Failure to do so will result in a lowered evaluation. Incomplete proposals may be determined nonresponsive. The City reserves the right to request additional information or clarification if necessary throughout the evaluation process.

- A. Title page
- B. Table of Contents
- C. Brief history of the Company including:
 - Years in business
 - Principals;
 - Size of Proposor (denote partnerships or subcontractors necessary to facilitate full service scope);
 - The name, position and telephone number of contact person authorized to conduct negotiations and authorize final contracts or otherwise bind the Proposor to a contractual relationship; and
 - A specific listing of services the Proposor is uniquely qualified to provide.
- D. Specific staff experience, by professional and educational qualifications, as it relates to providing services for the project scope including:
- E. Provide a time line and schedule applicable for the proposed project.

- F. Brief summary as to why the Proposor(s) feels qualified to provide the requested services.
- G. List at least three current and/or past work assignments of similar nature that the Proposor has directly contracted to provide within the last three years as a reference. For each reference, a brief description of services provided, organizational name, contact person and title, address and telephone number shall be provided.
- H. A qualifying statement as to your Proposor's registry status with the Virginia State Corporation Commission.

VI. CRITERIA FOR PROPOSAL EVALUATION

Proposals will be reviewed and evaluated according to the following criteria:

Criteria	Weight
Expertise, extent of experience and performance on projects of similar nature. Identify all disciplines available within the Proposor and those that will be subcontracted to others which are relevant to the project scope	20%
Qualifications of individuals assigned to project. Project Administration, Project Manager and Project inspection and testing.	20%
Demonstrated competency and qualifications	20%
Demonstrated understanding of the project and proposed approach	20%
Adequacy of Proposors resources available to provide the services for the contracts within the time, budget and operational constraints that may be present	20%
TOTAL	100%

VII. METHOD OF AWARD

Following evaluation of the written proposals as submitted, selection shall be made of two or more Offerors deemed to be fully qualified and best suited among those submitting proposals, on the basis of the factors involved in the Request for Proposal. At the option of the City, Offerors may be required to give an oral presentation to clarify or elaborate on their proposal. Negotiations shall then be conducted with the selected Offerors. Price shall be considered, but need not be the sole determining factor. After negotiations have been conducted, the City shall determine which Offeror has made the best proposal and may award the contract to that Offeror. Should the City determine in writing and in its sole discretion that only one Offeror is fully qualified, or that one Offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that Offeror.

VIII. GENERAL TERMS AND CONDITIONS

The following terms and conditions shall be incorporated into the negotiated contract. If any Offeror wants to amend or discuss during negotiations any term, the Offeror should set forth any objection, change, or addition in their proposal submission. Otherwise, submission of a proposal by an Offeror will obligate such Offeror to enter into a contract incorporating the terms and conditions of this section.

A. Subcontracting and Assignment of Work

The successful Proposor shall not subcontract or assign portions of the work, other than those

specifically defined in the CONTRACT, without the express written consent of the City. A description of any work the Offeror proposes to subcontract shall be submitted to the City for review and approval along with the name and address of the individual, Proposor, or corporation that is the proposed subcontracting Proposor. This submittal shall also include a list of the key personnel that the subcontractor Proposor will assign to the project. All work performed by any subcontractor Proposor shall be coordinated by the successful Proposor and the successful Proposor will be responsible to the City for all work performed by any subcontracting Proposor or special consultant.

B. Payment for Services

Payments to the successful Proposor shall be made within 30 days after receipt of an approved invoice for services provided in the previous month. Backup documentation for each invoice shall be provided in detail satisfactory to the City. The successful Proposor's records and documentation supporting such invoices shall be made available to the City upon reasonable request. The successful Proposor agrees to retain all records, documents and support materials relevant to the CONTRACT for a period of five years following final payment.

C. Independent Successful Proposor

The successful Proposor is an independent successful Proposor and nothing contained in a subsequent CONTRACT shall constitute or designate such Proposor or any of its agents or employees as employees of the City.

D. Termination and Ownership of Documents

The City reserves the right to terminate the contract upon written notice to the Successful Proposor. In the event of termination pursuant to this paragraph which is not the fault of the Successful Proposor, the Successful Proposor shall be paid for all services provided through the date of termination. The contract will terminate immediately upon failure of the City of Lynchburg, City Council to appropriate funds for its continuance.

The Successful Proposor agrees that all information and materials gathered and/or prepared by or for it under the terms of the CONTRACT shall be delivered to, become and remain the property of the City upon completion of the work or termination of the CONTRACT. The City shall have the right to use and reproduce the data and reports submitted hereunder, without additional compensation to the Successful Proposor.

E. Insurance

The selected Proposor shall be required to maintain in force such insurance, in amounts acceptable to the City, as will protect himself and the City from claims which may arise out of or result from the execution of the work, whether such execution be by himself, his employees, agents, subcontractor Proposors or by anyone for whose acts any of them may be liable. This coverage should include, at a minimum, Worker's Compensation, General Liability (including premises/operations, independent successful Proposors, products and completed operations, contractual liability and personal injury liability)

and Professional Liability. All insurance shall be provided by companies authorized to conduct business in the Commonwealth. The selected Proposor shall furnish the City with an original Certificate of Insurance upon request. The Certificate should name the City as additional insured. The selected Proposor shall notify the City at least 30 days prior to policy cancellation, non-renewal or reduction of coverage.

F. Laws and Regulations

The Successful Proposor shall abide by all Federal, State and Local laws and regulations governing the provision of the services called for in the contract. The Successful Proposor shall give notice and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the work. Any legal proceedings arising out of or related to this agreement shall be filed by the parties in the City of Lynchburg General District Court or the Lynchburg Circuit Court.

The selected Proposor shall not during the performance of any resultant contract knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

G. Severability

Each paragraph and provision of the resultant contract will be severable from the entire agreement and if any provision is declared invalid, the remaining provisions shall remain in effect.

H. Licenses and Permits

The Successful Proposor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the work which are legally required prior to and during the work. The City will not charge for any permits required by the City of Lynchburg.

I. Nondiscrimination

If the resultant contract exceeds \$10,000, during the performance of the contract, the successful Proposor agrees as follows:

- a. The Successful Proposor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Successful Proposor. The Successful Proposor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- b. The Successful Proposor, in all solicitations or advertisements for employees placed by or on behalf of the Successful Proposor, will state that such Successful Proposor is an equal opportunity employer.
- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- d. The Successful Proposor will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontracted Proposor or vendor.

J. Payments to Successful Proposors

In accordance with Virginia Code Section 2.2-4354 the Successful Proposor agrees that:

1. Should any contractor be employed by the Successful Proposor for the provision of any goods or services under this Contract, the Successful Proposor agrees to the following:
 - (a) The Successful Proposor shall, within seven days after receipt of any payments from the City pursuant to this Contract, either:
 - (1) Pay the subcontractor for the proportionate share of the total payment received from the
City attributable to the goods or services provided by the subcontractor; or
withhold all or a part of the subcontractors Proposor's payment with the reason for nonpayment. Written notice to the City shall be given to: City of Lynchburg, Procurement Administrator, 900 Church Street, Lynchburg, VA 24504.
 - (b) The Successful Proposor shall pay interest to the subcontractors Proposor, at the rate of one percent per month on all amounts owed to the subcontractors Proposor that remain unpaid after seven days following receipt of payment from the City for goods or services provided under this Contract, except for amounts withheld under subparagraph (a)(2) above.
 - (c) The Successful Proposor shall include in each of its subcontracts a provision requiring each subcontractors Proposor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractors Proposor.
 - (d) The Successful Proposor's obligation to pay an interest charge to a subcontractors Proposor shall not be an obligation of the City.
 - (e) No contract modification shall be allowed for the purpose of providing reimbursement for these interest charges. No cost reimbursement claim shall include any amount for reimbursement of these interest charges.
2. Invoice processing is to be in strict accordance with the rules and regulations set forth by the applicable Jurisdiction and the *Code of Virginia* Section 2.2-4352, requiring payment of invoices within 30 days of receipt of a proper invoice. No promises or commitments on the part of any employee of the Public Body shall bind the Jurisdiction to any other terms and/or conditions other than those set forth in procedures issued by the Public Body.
 - (a) Invoices shall be submitted to the City on a monthly basis. The City shall pay the amount of the invoice within thirty (30) days. However, the City shall have the right to verify information contained on an invoice and extend the time of payment until information is received to correct any errors found therein. The invoices submitted shall include, at a minimum, the following information:
 - (1) Project name, city and state project number;
 - (2) City Project Manager;
 - (3) City assigned Contract Number;
 - (4) Not to exceed amount or lump sum Amount;
 - (5) Total payments requested to date;
 - (6) Payments received;

- (7) Balance due;
- (8) Invoice number;
- (9) Period during which services were performed; and
- (10) Brief description of work covered by invoice.

(b) Payments shall not be considered as evidence of satisfactory performance of the work either in whole or in part, nor shall any payment be construed as acceptance by the City of any defective work. The City reserves the right to withhold payment in the event the City believes that the work is unsatisfactory.

K. Contractual Claims

Contractual claims, whether for money or other relief, shall be submitted in writing no later than 60 days after final payment; however, written notice of the Successful Proposor's intention to file such claim shall have been given at the time of the occurrence or beginning of the work upon which the claim is based. Any notice or claim shall be delivered to the City's Procurement Administrator, Third Floor City Hall, 900 Church Street, Lynchburg Virginia 24504 and shall include a description of the factual basis for the claim and a statement of the amounts claimed or other relief requested. The City's Procurement Administrator shall render a decision on the claim and shall notify the Successful Proposor within 30 days of receipt of the claim. The Successful Proposor may appeal the decision of the City's Procurement Administrator by providing written notice to the City Manager, within 15 days of the date of the appeal notice and such decision shall be final unless the Successful Proposor appeals the decision in accordance with the Virginia Public Procurement Act. Invoices for all services or goods provided by the Successful Proposor shall be delivered to the City no later than 30 days following the conclusion of the work or delivery of the goods.

L. Taxes

The Successful Proposor shall pay all City, State and Federal taxes required by law enacted at the time proposals are received and resulting from the work or traceable thereto, under whatever name levied. Said taxes shall not be in addition to the contract price as the taxes shall be an obligation of the Successful Proposor and not of the City and the City shall be held harmless for same by the Successful Proposor.

M. Indemnification

To the fullest extent permitted by law, the Successful Proposor, for itself, heirs, representatives, successors and assigns agrees to save, defend, keep harmless and indemnify the City and all of its officials, agents and employees (collectively, the "City") from and against any and all claims, loss, damage, injury, costs (including court costs and attorney's fees), charges, liability or exposure, however caused, resulting from, arising out of or in any way connected with the Successful Proposor's performance (or nonperformance) of the agreement terms or its obligations under this agreement.

N. Contract Assignment

The resultant contract may not be assigned, in whole or part, without the written consent of the City.

O. Royalty and License Fees and Copyright, Trademark and Patent Protection

The Successful Proposor shall pay all royalty and license fees relating to the items covered by the contract. In the event any third party shall claim that the manufacture, use and sales of these goods offered hereby constitutes an infringement of any copyright, trademark, or patent, the Offeror shall indemnify and hold harmless the City from any cost, expense, damage or loss incurred in any manner by the City on account of such alleged infringement.

P. Responsibility for Property

The Successful Proposor shall be responsible for damages to property caused by work performed under the CONTRACT. Property damage to surrounding or adjoining areas caused directly or indirectly by actions or omissions of the Successful Proposor shall be repaired or replaced by the Successful Proposor, to the satisfaction of the Owner, at the Successful Proposor's expense.

Q. Precedence of Documents

The precedence of documents shall be as follows: the CONTRACT, the Request for Proposals and the Offeror's response to the Request for Proposals.

R. Administrative Appeals Procedure

Any protest to award a contract shall be in writing and shall be delivered so that it is received by the City Manager not later than ten (10) business days after announcement of the award or award, whichever comes first.

S. Drug Free Workplace

In accordance with Sec 2.2-4312 of the Virginia Code, during the performance of this contract, the Consultant agrees to (i) provide a drug-free workplace for the consultant's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Consultant's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the consultant that such consultant maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each sub-Consultant or vendor.

Successful consultant shall not use, possess, manufacture, or distribute alcohol or illegal drugs during the performance of the contract or while on City premises or distribute it to City employees.

Successful Consultant understands that a violation of these prohibitions constitutes a breach of the contract and that the City has the right cancel the contract.

For the purpose of this section, "Drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Consultant, the employees whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

T. Right to Audit

All contracts are subject to audit by Federal, State or City Personnel or their representatives at no cost to the City. Consultant agrees to retain all records, books and other documents relevant to this contract and the funds expended hereunder for at least four (4) years after Contract acceptance, or as required by applicable law. Requests for audits shall be made in writing and Consultant shall respond with all information requested within ten (10) calendar days of the date of the request.

U. Conflict of Interests Act

The provisions, requirements, and prohibitions as contained in Sections 2.2-3100, et seq., of the Virginia Code are applicable to this RFP.

V. Ethics in Public Contracting

The provisions, requirements, and prohibitions as contained in Sections 2.2-4367 through 2.2-4377, of the Virginia Code, pertaining to bidders, offerors, contractors, and subcontractors are applicable to this RFP.