

UNIVERSITY AREA JOINT AUTHORITY  
STATE COLLEGE  
CENTRE COUNTY, PENNSYLVANIA

CONTRACT #2010-03

CONTRACT & SPECIFICATIONS FOR  
TKN DIGESTION AND DISTILLATION EQUIPMENT

MAY 2010

## INVITATION TO BID

Sealed Bids will be received by the University Area Joint Authority in their offices at 1576 Spring Valley Road, State College, Centre County, Pennsylvania, 16801 until 2:00 PM prevailing time, May 25<sup>th</sup>, 2010, at which time they will be opened and read aloud. The bids are to be for the purchase of:

1. CONTRACT #2010-03, TKN DIGESTION AND DISTILLATION EQUIPMENT

Instructions to Bidders, Specifications and Forms of Contracts may be obtained at the office of the Authority. All Proposals shall be on the Bid Form and shall be irrevocable for a period of sixty (60) days after the opening of Bids.

The University Area Joint Authority reserves the right to waive any defects, errors, omissions, mistakes, informalities, to accept any bid or combination of bids that are deemed to be in the best interest of the Authority, and to reject any or all bids.

Please be advised that the University Area Joint Authority will not discriminate against any interested firms or individuals in regard to race, creed, color, sex, age, handicap or national origin in the selection process.

Please contact Diane Cowan at 814-238-5361 between the hours of 8 a.m. and 4 p.m. with questions.

University Area Joint Authority

Cory R. Miller, Executive Director

Dated: MAY 2010

## FORM OF BID

FOR: TKN DIGESTION AND DISTILLATION EQUIPMENT

TO: University Area Joint Authority  
1576 Spring Valley Road  
State College, Pa. 16801

Pursuant to and in accordance with your advertisement for bids dated May 9<sup>th</sup> and May 12<sup>th</sup>, 2010 and the Instructions to Bidders relating thereto, the Undersigned having carefully examined the Specifications and other Contract Documents hereby proposes to furnish TKN DIGESTION AND DISTILLATION EQUIPMENT in accordance with the Specifications and all Addenda issued by the Owner and mailed to the Undersigned a minimum of three (3) working days prior to the opening of Bids whether received by the undersigned or not, complete, and ready for use, for the lump sum price set forth in the following Schedule.

CONTRACT NO. #2010-03

SCHEDULE NO. 1

TKN DIGESTION AND DISTILLATION EQUIPMENT

For furnishing TKN DIGESTION AND DISTILLATION EQUIPMENT as specified in Section No. 2 of these Specifications, the lump sum price is: (Must be clearly printed or typed in ink. Itemized pricing must also be provided)

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\_\_\_\_\_ Dollars \$ \_\_\_\_\_

ADDITIONAL COMMENTS:

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## BIDDER'S REPRESENTATION

The undersigned hereby represents as follows:

1. That this Bid is made without connection with any other person, firm, or corporation making a bid for the same laboratory equipment, and is in all respects fair and without fraud or collusion;
2. That no officer, agent or employee of the University Area Joint Authority is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder; and,
3. That no representation, statement or statements, oral or in writing, has induced the vendor to enter into this contract excepting those contained in the Contract Documents or made a part hereof by its terms.

The undersigned hereby designates as their office to which any notice of acceptance may be sent: (provide name, address, phone, fax, email, contact name)

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This bid may be withdrawn at any time prior to the scheduled time for opening of bids or any authorized postponement thereof.

WITNESS:

\_\_\_\_\_

INDIVIDUAL:

\_\_\_\_\_ (SEAL)

WITNESS:

\_\_\_\_\_

PARTNERSHIP:

\_\_\_\_\_ (SEAL)

By: \_\_\_\_\_ (SEAL)

\_\_\_\_\_ (SEAL)

WITNESS:

\_\_\_\_\_

FIRM OR CORPORATION:

\_\_\_\_\_ (SEAL)

By: \_\_\_\_\_

If a corporation, give State of Incorporation using the phrase, "A Corporation Organized under the Laws of

\_\_\_\_\_."

If a partnership, give names of partners, using also, the phrase, "Co-partners trading and doing business under the firm name of

\_\_\_\_\_."

If an individual, using a trade name, give individual name, using also, the phrase, "An individual doing business under the firm name of

\_\_\_\_\_."

SECTION NO. 1  
INSTRUCTIONS TO BIDDERS

1. The attached Specifications set forth for TKN DIGESTION AND DISTILLATION EQUIPMENT. Any change, variation or substitution must be clearly stated in the bid.
2. All Contracts must be executed on forms furnished by the University Area Joint Authority.
3. All Bids shall be sealed in an envelope plainly marked "SEALED BID FOR CONTRACT #2010-03" UNIVERSITY AREA JOINT AUTHORITY, TKN DIGESTION AND DISTILLATION EQUIPMENT.
4. All supplemental instructions will be in the form of written Addenda to the bid and Specifications, which if issued, will be mailed to all prospective Bidders not later than three (3) working days prior to the date fixed for the opening of the bids.
5. The successful Bidder shall be responsible for the payment of all Excise, Sales and Use Taxes and all other taxes required by law on all materials, tools, apparatus, equipment, fixtures, services, uses and incidentals which they purchase or use for the purpose of fulfilling the work of this Contract, and they shall include all amounts required for such taxes within the item prices bid in their Bid. No additional payment will be made to cover such taxes. Each Bidder shall thoroughly familiarize itself before submitting a Bid with all laws requiring the payment of such taxes.

Attention is directed to the fact that under existing provisions of the Pennsylvania 1963 Tax Act for Education and regulations promulgated by the Pennsylvania Department of Revenue, items of tangible personal property used or consumed directly in the rendition of a public utility service (including a sewer system) are exempt from tax under said Act upon proper application for the certificate of exemption. Bidders are further advised that, upon proper application, an Excise Tax Exemption Certificate will be provided to the successful Bidder.

## CONTRACT

THIS AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between the University Area Joint Authority, hereinafter known as the Owner, Party of the First Part, and \_\_\_\_\_ a \_\_\_\_\_ known as \_\_\_\_\_, existing under the laws of \_\_\_\_\_, hereinafter called the CONTRACTOR, Party of the Second Part.

WITNESSETH, that the Parties hereto for the consideration stated mutually agree as follows:

### ARTICLE I – SCOPE OF WORK:

The Contractor agrees to furnish the specified laboratory equipment and perform all work necessary for or incidental to, and to perform all other obligations imposed by this contract for the complete work, all in strict accordance with the CONTRACT DOCUMENTS as prepared by the Authority, attached hereto or referred to herein, all of which are made a part of and designated as follows:

- a. Notice to Bidders
- b. Instructions to Bidders
- c. Form of Bid
- d. Specifications for TKN DIGESTION AND DISTILLATION EQUIPMENT



ARTICLE II – DISPOSAL OF CONTRACT:

The CONTRACTOR shall keep the CONTRACT under their own control and shall not sell, transfer or assign or otherwise dispose of the CONTRACT or any portion thereof or his right, title or interest herein to any person, firm or corporation without the express written consent of the OWNER.

IN WITNESS WHEREOF, the parties hereto have caused the signatures of their proper officers to be affixed hereunto on the day and year first above written.

**CONTRACT #2010-03 TKN DIGESTION AND DISTILLATION EQUIPMENT**

UNIVERSITY AREA JOINT AUTHORITY

By: \_\_\_\_\_  
Chairman

ATTEST:

\_\_\_\_\_  
Secretary

CONTRACTOR

By: \_\_\_\_\_

ATTEST:

\_\_\_\_\_

## SECTION NO. 2 SPECIFICATIONS

The following indicates the MINIMUM requirements including all genuine parts, accessories, equipment and safety features considered standard, whether mentioned herein or not.

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### TKN Digestion and Distillation Equipment:

- The bid is to include the following items:
  1. One (1) DIGESTION BLOCK capable of simultaneously digesting 10-24, 250-500ml tubes (larger tubes preferred) in accordance with EPA approved wastewater TKN methods. The unit must include an electronic controller that is user programmable for any sequence of time and temperature conditions, and must allow for safe, unattended TKN digestion. The unit must be able to be installed within our existing fume hood, which has a depth of 22.25 inches (565 mm) and a 26" vertical opening. (The interior of the hood has at least 42" of vertical space.)
  2. One (1) suction-type EXHAUST MANIFOLD designed to capture and condense fumes during the digestion. This manifold must be capable of being adapted to any number of tubes (from 1 tube to the capacity of the block) and will include any accessories needed to do achieve that. The unit will be set up for use with an aspirator initially, but should be capable of being fit with a scrubber at a later date.
  3. One (1) TUBE TRAY or SET of trays capable of holding any number of tubes (up to the capacity of the block) stably on a bench top, and on the block itself during the digestion. The tray(s) must have handles to allow easy transfer of a loaded tray to and from the digestion block when it is located in a fume hood. Include enough trays to completely utilize the capacity of the block.
  4. One (1) non-motorized RACK SYSTEM integrated into the block that allows the tubes to be lifted into a position above the block for cooling with the manifold in place. The rack system must be designed so that the tube tray is held securely during cooling, but can be easily attached or removed at the beginning or end of the digestion cycle. A motorized system can be substituted if a non-motorized system is not available.
  5. One 250- 500 ml TUBE FOR EACH POSITION on the Block, plus four (4) additional tubes to be used as spares. Units that hold fewer than 12 tubes during and incubation should include six (6) spares so that there is a minimum of 16 total tubes in the bid.
  6. One (1) semi-automated STEAM DISTILLATION UNIT designed to accept these tubes as reaction vessels. The distillation unit must provide for

automated base addition with user selectable volume, must allow automated distillation with user selected steam generation time. Units that allow variation of steam intensity are preferred as are those that can be adapted for use with different sizes of reaction vessels. Automated sample aspiration is not required.

7. All accessories, including reagent tanks, tubing, etc. necessary to operate the steam distillation unit for the distillation of aqueous ammonia (i.e. wastewater) and TKN samples.
  8. Six (6) COLLECTION FLASKS suitable for use as acid traps in the distillation unit. A provision for automated acid addition to the traps is desirable, but not required.
  9. All instructional materials necessary to set up and operate the system and to order spare parts or service. This must include a clear warrantee statement, the general parameters of which must be included in the bid documentation (see details below).
- The DIGESTION BLOCK, EXHAUST MANIFOLD, RACK SYSTEM, and loaded TUBE TRAY must fit easily in our existing fume hood, which has a 22.25" depth and a 26" vertical opening above a 2" sill. (There is at least 42" of height inside the opening.) The design must facilitate convenient and safe loading and unloading of the TUBE RACK within this hood.
  - The DIGESTION BLOCK and DISTILLATION UNIT may be specified for use with either US standard 110-120 Volt or 220-240 Volt power outlets.
  - The DISTILLATION UNIT must be capable of performing at least 10 TKN or ammonia distillation cycles per hour with minimal user input or maintenance time.

Bids will be evaluated based on the total cost of operating the system over a 5 year period, and on the projected ability of the system to support low level TKN and ammonia analysis, which is directly related to the ratio of initial sample size to the final distillate volume. (Since distillate volume is likely to be similar for all systems, it is expected that larger digestion and distillation vessels will produce lower detection limits.) Total operating cost shall include the initial cost of the equipment as provided in the bid, plus the cost of required periodic maintenance items other than the cost of chemicals, which will be assumed to be equal for all systems. Operator time and convenience will be considered only if the systems that are bid differ substantially in their level of automation. Vendors are encouraged to submit multiple bids with different specifications and components if it is in doubt which will provide the lowest total cost of operation.

Vendors must document the continued availability of both parts and service for the equipment bid, and must itemize the cost of wear items or other items likely to be in need of replacement within a 5 year period. Vendors are not required to provide either parts or service in house, but if not, they must document a reliable 3<sup>rd</sup> party source for both parts and service. All vendors must clearly document all warrantee terms and conditions for the equipment bid, as well as the method of obtaining warrantee service.