

COUNTY OF SUMMIT  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
2010 POLYMER



INVITATION TO BID  
FORMAL BID # XXXX-XXX

BID SUBMISSION TIME & LOCATION                      XXXX XX, 2010 @ X:XX PM

**Mailing Address:**  
2525 State Road  
Cuyahoga Falls, OH 44223

**Physical Address:**  
Engineering Dept.  
2nd Floor  
2525 State Road  
Cuyahoga Falls, OH 44223

BID OPENING TIME & LOCATION                      XXXX XX, 2010 X:XX PM,  
Ohio Building

The County of Summit will receive sealed bids for the Department of Environmental Services up to 2:30 PM on Xxxxxx, Xxxxx xx, 2010. After the review process has been completed, a bid tabulation will be available for public inspection.

Prospective Bidders are hereby notified that they are solely responsible for ensuring timely delivery of their bid to the County of Summit Department of Environmental Services on or before the bid **submission** date and time indicated above.

If you have questions please contact Robert Hollis at 330-645-0003 or  
[rhollis@does.summitoh.net](mailto:rhollis@does.summitoh.net).

The County of Summit reserves the right to reject any all bids and to waive informalities or irregularities.

**DESCRIPTION:**

The County is soliciting for the supply and delivery of liquid polymer to the Waste Treatment Facility for dewatering aerobically digested sludge. Projected usage is approximately 55,000 pounds per year or more of Liquid Polymer in returnable containers. For delivery throughout 2010, F.O.B., destination. Contract period may be for a three-year period negotiated in one year increments. There are no guaranteed minimum or maximum amounts. Bidders shall guarantee delivery within seven (7) calendar days from notification of a shipment request, by phone, from each Treatment Plant Supervisor. Plant Supervisors (Contacts) are:

- 1) Greg Long – Fishcreek WWTP #25 – 330-808-6921
- 2) Robert Frank – Upper Tuscarawas WWTP #36 – 330-808-7729

All applicable government and local agency requirements apply.

**Bid Bond**

All bids shall be accompanied by a bid deposit of five percent (5%) of the total bid, to be received in the form of a surety bond, certified check or cashier's check. Checks must be payable to the County of Summit Treasurer. Business or personal checks will not be accepted.

**NOTICE TO BIDDERS:**

All bid proposals shall be accompanied by a Certificate of Liability Insurance. The successful bidder shall also be required to submit a photocopy of their valid Ohio State Contractor's Registration.

Bidders must correctly prepare and submit all required documents to the County of Summit Department of Environmental Services (DOES).

The following documents are required for a complete bid package:

Certificate of Liability Insurance  
 Bid Sheet  
 Bid Deposit  
 Addendum Receipt

Every item must be complete in all respects, including authorized signatures (notarized where required). Bidders shall acknowledge receipt of all addenda in the spaces provided. Failure to include all items may be cause for the bid to be rejected as non-responsive.

The County of Summit DOES reserves the right to reject any or all bids for good cause, to waive any irregularities in any bid, and to delete certain items listed in the bid as set forth therein. When all bids have been rejected, the County of Summit DOES may call for new bids.

Bidders are advised that all bids will likely be rejected if the lowest, responsible bid received exceeds the end-user's estimate by an unreasonable amount. In the event all bids are

rejected for this reason, this project will be deferred for re-advertising until a more competitive situation exists, or until the user department's requirements are reduced.

The Specifications for the proposed work may be obtained from the County of Summit DOES at 2525 State Road, Cuyahoga Falls, Ohio, or by calling Shannon Cogar, at 330-926-2444. .

**Bids received after XXXX XX, 2010 at 2:30 P.M., will not be considered.**

**BID PACKAGES SHALL BE SUBMITTED in a separate envelope and sealed. The bid number and title of the project (as indicated on the title page), the date and time of bid opening, and the name and address of the bidder shall be clearly shown on the outside of the envelope.**

**Mail bid documents to:** ATTN: Shannon Cogar  
County of Summit  
Department of Environmental Services  
2525 State Road  
Cuyahoga Falls, OH 44223

Bid documents may be hand-delivered Monday-Friday, 8:00AM to 3:30PM, to the:  
County of Summit  
Department of Environmental Services  
2525 State Road  
Cuyahoga Falls, OH 44223

**Faxed bids will not be considered.**

Bidding/purchasing process questions may be directed to either of the following persons listed below during business hours of 7:30AM to 3:30PM, Monday-Friday, excluding holidays:  
Shannon Cogar, 330-926-2444  
Keith Kinzel, 330-926-2436

The award process will be subject to any preferences provided by law pertaining to DOES projects and vendors, taking into consideration the quality of the services rendered and the quality of the materials used, and their delivery. This award process will also provide that all bids may be rejected whenever there is reason to believe that the lowest, acceptable bid is not the best possible price obtainable. At this point the Department of Environmental Services may call for new bids.

**APPENDIX "A"**  
**TECHNICAL SPECIFICATIONS**  
**POLYMER**

**INTRODUCTION**

The County of Summit (DOES) is soliciting bids for supplying liquid polymer to the Wastewater Treatment Facility for the purpose of dewatering aerobic digested sludge from the Fishcreek Wastewater Treatment Plant (WWTP)#25, and the Upper Tuscarawas WWTP #36, Projected usage is expected to be approximately 55,000 pounds for one year. The attached testing procedures and specifications provide the parameters in which the County will accept bids. Vendors who wish to bid on the annual requirements of polymers for wastewater sludge dewatering must comply with all testing and bid specifications.

**SPECIFICATIONS**

Scheduling for on-site bench tests and full-scale plant tests must be made with both County Wastewater Treatment Plants for testing on site for the weeks of:

- xxxx xx, 2010 through xxxx xx, 2010
- xxxx xx, 2010 through xxxx xx, 2010
- xxxx xx, 2010 through xxxx xx, 2010
- xxxx xx, 2010 through xxxx xx, 2010
- xxxx xx, 2010 through xxxx xx, 2010

Scheduling for on-site bench tests must be coordinated with both plant supervisors:

- 1) Greg Long – Fishcreek WWTP #25 – 330-808-6921
- 2) Robert Frank – Upper Tuscarawas WWTP #36 – 330-808-7729

Copies of the signed originals of this form must be submitted with this bid. All dates must be updated throughout the bid document. Calculation forms must be completed on-site and countersigned by the Operations Supervisor or his designee. The signed originals of this form must be submitted with the bid.

The successful bidder will be required to provide technical assistance for operator training and operations evaluation, concurrent with the initial delivery of polymers, at no extra charge to the county. Training shall not exceed four (4) hours.

All prices are to be F.O.B. to both Wastewater Treatment Facilities loading areas with all shipping/loading costs and liabilities the responsibility of the polymer vendor.

Polymers are to be delivered to both Wastewater Treatment Facilities in either returnable plastic containers with pick-up services for the returnable containers or delivered in bulk quantities directly to the existing tanks onsite.

It is the intent of the County to award to the lowest responsive, responsible bidder based on the total cost of polymer, which includes the polymer dosing cost factor, the sludge disposal cost factor, and the dewatering recovery cost factor, required to produce dewatered biosolids. During the term of this purchase contract, the supplier will ensure that the manufacturer's

specification for the product, as initially tested at time of award, will not vary or change. DOES reserves the right to periodically test a sample of the provided polymer to ensure that the manufacturer's specification of the polymer has not varied.

**In the event that the original manufacturer's specification of the product varies during the term of the awarded contract DOES reserves the right to cancel the contract and may call for new bids.**

**Additionally, should the sludge chemistry change for the County, the County reserves the right to re-negotiate the price of an appropriate polymer with the successful bidder or cancel the contract.**

**APPENDIX "B"**  
**TESTING SPECIFICATIONS**  
**POLYMER**

1. Prior to field-testing, vendors' representatives shall perform bench tests on the plants' sludge to determine optimum polymer and dosage rate. No more than two (2) specific polymer product numbers can be field-tested per plant; only one item may be bid.
2. Each bidder shall then be assigned a scheduled testing date (Monday through Friday) for a one day, full-scale plant test for each polymer tested. The vender will be required to provide a full drum of each polymer with a data sheet as well as any on site technical assistance to evaluate the testing at no charge to the county.
3. Polymer concentration will be prepared at approximately 0.5% active polymer solution concentration and post diluted to 0.1%. All test polymers will be prepared, and applied, at the same "active polymer" concentration.
4. All polymers will be tested with the same machine adjustments, and at the same sludge flow rate
5. Run the belt filter press on wash water for at least a half (½) hour prior to the test. A one (1) hour time period immediately prior to the test may be used by the manufacturer's representative to adjust the polymer feed rate, dilution water, and belt speed.
6. Set the polymer feed pump according to the supplier's recommendations. Record the polymer concentration in tank mixture, level of mixture in the tank, and polymer setting. After the polymer is mixed, additional dilution water or polymer shall not be added to the polymer tank solution. (If any problems occur, due to unforeseen circumstances, the representative may reschedule the test).
7. Adjust the sludge feed rate at 60 GPM. (Use the same feed rate for each polymer test).
8. Adjust the belt pressure to 400 PSI. Adjust the belt speed to 15 on the belt press controller to start with. The belt speed can be adjusted during the first test hour. After the first hour trial run is completed, the belt speed shall remain constant for the entire two (2) hour test period.
9. The Supplier/Manufacturer shall have up to and including the one (1) hour test slot for adjustment of the polymer feed rate, dilution water gpm and belt speed (only) for the best possible cake results.
10. Record the amount of polymer solution in the tank after the one (1) hour time slot and use this as the start of the test. The polymer pump feed rate shall not be adjusted after the start of the testing time. Record the measurement of polymer used each hour.
11. Collect and have the cake solids analyzed at the Start, 1, and 2 hour time slots.

12. Collect the feed and filtrate percent solids and have them analyzed at the start and end of the two (2) hour test slot.
13. Record the level of the polymer in the test container at the TEST START, 60 min, and 120 min (TEST END) slots on the worksheet.
14. The total cost of polymer will be calculated from test results in Appendix "D", Calculations.
15. When laboratory results are available, (usually the day after samples are taken to the Lab), the County will enter the results on the worksheet and forward the original to the Vendor.
16. A minimum qualifying cake total solid is 18%. A minimum qualifying percent capture is 90%. Any polymer not obtaining these results will not be considered.
17. The County may at its option buy more of a specific polymer, if necessary, for more detailed testing.

APPENDIX "C"  
WORKSHEET

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

COMPANY: \_\_\_\_\_

PRODUCT NAME/NUMBER: \_\_\_\_\_

SAMPLE SET NUMBER: \_\_\_\_\_

SLUDGE FEED PUMP RATE: 60 GPM \_\_\_\_\_

BELT PRESSURE: \_\_\_\_\_

BELT SPEED: \_\_\_\_\_

POLYMER FEED RATE: \_\_\_\_\_

DILUTION WATER (GPM): \_\_\_\_\_

BELT SPEED: \_\_\_\_\_

POLYMER SOLUTION TANK DIAMETER: \_\_\_\_\_

POLYMER SOLUTION TANK LEVEL:  
(After one hour trail period) (TEST START) \_\_\_\_\_

POLYMER SOLUTION TANK LEVEL (60 min): \_\_\_\_\_

POLYMER SOLUTION TANK LEVEL (120 min):  
(TEST END) \_\_\_\_\_

CAKE SOLIDS ( % Solids) (TEST START): \_\_\_\_\_

CAKE SOLIDS ( % Solids) (60 min): \_\_\_\_\_

CAKE SOLIDS ( % Solids) (120 min)(TEST END): \_\_\_\_\_

FEED ( % Solids) (TEST START): \_\_\_\_\_

FILTRATE ( % Solids) (TEST START): \_\_\_\_\_

FEED ( % Solids) (TEST END): \_\_\_\_\_

FILTRATE ( % Solids) (TEST END): \_\_\_\_\_



APPENDIX "D"  
CALCULATIONS

1) Polymer Dosing Factor =  $[(X) DT/YR]*Z*P$

2) Sludge Disposal Cost Factor =  $[(X) DT/YR]/(At/100)]*(DC/WT)$

3) Dewatering Recovery Cost Factor =  $\{[(X) DT/YR]/(Y/100)- [(X) DT/YR]\}*Z*P$

TOTAL POLYMER COST (1+2+3)

Where: Z = Polymer Dosage (lbs/DT)

Y = Solids Recovery (%)

P = Polymer Price Per Bid (\$/lb)

At = Total Cake Solids for trial polymer (%)

BID SHEET

The undersigned bidder proposes to provide xxx,xxx pounds or more of liquid polymer in returnable containers to be delivered to the Fishcreek WWTP, 2910 North River Road, Stow, Ohio 44224, and the Upper Tuscarawas WWTP, 1100 Loamshire Drive, Akron, Ohio, 44319 with pickup service for returnable containers throughout the 2010 year and may be continually subject to a negotiated one year extension with the concurrence of both parties for two additional years.

Bidders shall guarantee delivery within seven (7) calendar days from notification of a shipment request, by phone, from County of Summit Department of Environmental Services (DOES) employees. There are no guaranteed minimum or maximum amounts.

This bid is made in accordance with the published Standard Specifications and warrants, receipt of which is hereby acknowledged, and is offered in accordance with call for bids authority by the County of Summit DOES Purchasing Office.

xxx,xxx POUNDS POLYMER \$ \_\_\_\_\_

UNIT PRICE \$ \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

SPECIFY MANUFACTURER: \_\_\_\_\_

SPECIFY POLYMER PRODUCT NUMBER: \_\_\_\_\_

BIDDER \_\_\_\_\_

Name of Company (Type or Print)

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

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

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

\_\_\_\_\_  
(Date)

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

\_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

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

10-333

FEDERAL IDENTIFICATION NUMBER \_\_\_\_\_