

**Rahway Valley Sewerage Authority
1050 East Hazelwood Avenue
Rahway, New Jersey 07065**

December 20, 2011

**Request for Letters of Interest in a Public-Private
Partnership for the Operation & Maintenance of
Solids Handling and Electric Generation Facilities**

Background

The Rahway Valley Sewerage Authority (Authority) is soliciting Letters of Interest (LOI) to determine the possible options for operation of its existing Dewatering, Sludge Drying, and Cogeneration Facilities by a private entity. The Authority will consider entering into agreements for the facilities described herein, or any part or combination thereof. Once the level of interest in such a public-private partnership is established, the Authority will examine the options available and decide whether it is in its interest to issue a formal Request For Qualifications (RFQ). If an RFQ is issued, the Authority will review the information received and may then solicit Proposals from the qualified respondents.

Constructed Facilities

The Dewatering Facility Building houses three centrifuges. There is one Westfalia centrifuge with a capacity of 300 gpm and there are two Centrysis centrifuges rated at 180 gpm each. The building also houses ancillary equipment such as sludge feed pumps and a polymer blending/feed system, conveyors, and a truck loading bay with truck scales. This is currently the only facility described herein that is in operation by the Authority.

The Sludge Drying Facility consists of a Komline Sanderson indirect dryer rated at 9,700 pounds per hour based on a sludge cake input of 20% solids and an output of 90% solids. The drying process equipment shares a building with the COGEN equipment. The dryer was designed and constructed to utilize waste heat recovered from the exhaust of the COGEN engines for use in the drying process. In addition to utilizing this waste heat, a natural gas fired thermal hot oil heater is installed so that the dryer can operate independently of the COGEN engines. Dried product is pneumatically transported to a receiving bin at the truck bays in the Dewatering Building. The product is then sprayed with oil for dust control and loaded into the hauling vehicles.

The COGEN facility is a 6.0 megawatt Cogeneration/Sludge Drying Facility originally designed and constructed in order to provide electric power for the operation of the Authority Wastewater Treatment Plant (WWTP). The design intent was for the COGEN facility to be the primary

source of power for the WWTP and utility power would be the backup. In order to function in a backup capacity, the utility company requires a minimum import of 300 kilowatts to facilitate backup.

The COGEN facility includes four Caterpillar G3608 engines that are rated at 2131 brake horsepower. The engines are spark-ignited water cooled with a combustion air turbocharger, and operate at 900 rpm. The generators are rated at 13,200 volts AC, 0.8 P.F, 3 phase and are able to generate 1.5 megawatts each, when operating at 100% load. The engines are equipped to run on 100% natural gas, 100% biogas (digester gas) or a blend of the two gases. At the present time the Authority only generates enough biogas to run one engine at 100% load for about 8 hours with a recovery time of approximately 16 hours. For the purposes of this contract, it is unlikely that the Authority would provide any biogas for operation of the engines. The Authority may be willing to sell the biogas to the operator of the COGEN facility at a later date; however, it is not mandatory that the operator take the biogas.

The COGEN system was designed to provide heat recovery from the engine jacket water for use in the plant hot water heating loop. Alternatively the jacket water heat can be dumped to a cooling tower. Waste heat from the exhaust gas can be recovered to heat thermal oil which is used by the sludge dryer. In the event that the dryer is not in operation, the exhaust heat is wasted to the stack with no provision for recovery.

When biogas is used in the engines, it is compressed and conditioned by a gas treatment system which consists of a three carbon vessels for siloxane removal. The manufacturer of the gas treatment system is Applied Filter Technology.

Regulatory

The Authority did operate the COGEN and Sludge Drying Facility for approximately 130 days. At the time of this operation, the Air Operating Permit required the temperature at the exit of the catalyst to be a minimum of 851°F. In order to maintain this minimum temperature, the engines could only operate at about 70 percent of full load.

The Authority has a Title V Air Operating Permit because the potential to emit nitrogen oxides from the COGEN exceed the threshold that defines a “major facility”. Currently the permit limits operation to 3 ½ engines per year, or a maximum of 30,660 engine hours of operation per year for all four engines. If a contract including operation of the COGEN is awarded, the Contractor will be responsible for maintaining compliance with the Authority’s Title V Air Operating Permit and all other State, Federal or Local regulations.

Contracting Scenarios

The purpose of this solicitation is to explore all operating scenarios noted below. The Authority will consider solicitations from individual firms or joint ventures. For the three (3) distinct facilities the Authority will consider five (5) different possible contracting scenarios:

- 1) Dewatering, Sludge Drying, and COGEN Facilities
- 2) Sludge Drying and COGEN Facilities
- 3) Dewatering and Sludge Drying Facilities
- 4) Sludge Drying Facility
- 5) COGEN Facility

Please note the Authority will not currently entertain contracting the Dewatering Facility separate from the Sludge Drying Facility.

Site Visit and Inquiry Period

Interested parties are encouraged to visit the site to establish familiarity with the as built conditions and configuration of the facilities. The Authority will provide these site visits the week of **January 9, 2012**. Prior arrangements must be made a minimum of one day in advance with Bob Valent, Superintendent, at 732-388-0868 Ext. 221.

All inquiries for process information and/or design documentation must be made in writing via electronic mail, with delivery status notification, to the Authority's Executive Director at jmeehan@rahwayvalleysa.com with "LETTER OF INTEREST RFI – CONFIDENTIAL" in the subject line. Inquiries must be received by the Authority no later than **3:00 p.m. on January 20, 2012**.

Submission of Letters of Interest

Letters of Interest must be submitted to the Authority's Executive Director, James J. Meehan, at the Rahway Valley Sewerage Authority's office, 1050 East Hazelwood Avenue, Rahway, NJ 07065, no later than **2:00 p.m. February 10, 2012**. Letters shall be in sealed packages marked "LETTER OF INTEREST – CONFIDENTIAL" on the outside of the package. **NO LOI's WILL BE ACCEPTED ELECTRONICALLY.**

Letters of Interest shall include, at a minimum, the following information:

1. Company contact information, i.e. name, address, telephone number, contact person and email address
2. A description of the firm's qualifications and related experience.
3. A list of current projects with contact information.
4. Stockholder disclosure information, i.e. identification of any individual or corporation that owns more than 10% of the company.
5. Financial information in order to demonstrate the company's ability to undertake the project.
6. A brief description of which operating scenario would be proposed and in what capacity the facilities would be used.