

Pigeon Forge, Tennessee Wastewater Treatment Plant Fine Bubble Diffusers

(August 1, 2013)

Contract Documents

Prepared By:

Veolia Water North America

For the

City of Pigeon Forge, Tennessee

P.O. Drawer 1350

Pigeon Forge TN 37868-1350

Public Works Office: 865-429-7312

Wastewater Treatment Plant: 865-428-3558

NOTICE OF BID

August 1, 2013

The City of Pigeon Forge, Tennessee is receiving bids for new fine air diffusers used in biological treatment process at the Wastewater Treatment Plant.

Specifications may be obtained from Veolia Water North America, 2428 Library Drive, Pigeon Forge, Tennessee between the hours of 8:00 a.m. and 4:30 p.m., Monday thru Friday.

All bids must be in a sealed envelope with the bidder's name and address and the reference "Pigeon Forge Fine Air Bubble Diffusers" clearly marked on the outside of the envelope.

A mailed bid shall be addressed to: Mark Miller at the City of Pigeon Forge, Department of Public Works, P.O. Box 1350, Pigeon Forge, Tennessee 37868-1350. Bids will be received until 2:00 PM, August 14, 2013 at the City of Pigeon Forge Public Works department located at 225 Pine Mountain Road, Pigeon Forge TN, at which time they will be opened and read aloud.

The City reserves the right to reject any or all bids or to accept the bid most favorable to the City.

This 1st day of August 2013.

Department of Public Works
Pigeon Forge, Tennessee 37863

Pigeon Forge WWTP Fine Bubble Diffuser Specification

The City of Pigeon Forge is soliciting bids from qualified vendors for the supply of 850 fine air diffusers for the Train 1 and Train 2 aeration basins at the Pigeon Forge Wastewater Treatment Plant. The existing diffusers are FMC Pearlcomb ceramic diffusers installed in 1987. The diffusers shall meet or exceed the specifications below.

A. Tubular Membrane Diffuser Assembly

1. Design

- a. Each diffuser shall be designed to operate efficiently in the releasing of air into the tanks at the locations shown on the drawings.

2. Materials

- a. The diffuser body shall be made of nonporous PVC plastic tubing of I.D. 2 1/4" and an O.D. of 2 1/2". The diffuser body shall be a non-buoyant design and the air supply end of the tubing shall have a molded PVC end closure slotted to allow water to pass through and chambered to allow air to pass into the diffuser membrane. The closure shall have a 3/4" NPT female receptacle to receive a 3/4" male threaded nipple. The nipple shall be 2 1/2" long Schedule 40 pipe of type 304 stainless steel and shall be like threaded on both ends. The opposite end of the plastic tubing shall be completely open. The overall length of the diffuser shall not exceed 25 inches.
- b. The membrane shall be of molded EPDM rubber compounded for waste water applications. The membrane shall be perforated by a multitude of minuscule slots lying in parallel rows which extend to 1 1/4" from each end of the membrane. The membrane shall fit over the entire length of the tubing and inserted end closure, and shall be fastened to the assembled diffuser by a 1/4" stainless steel clamp at each end.

3. Operation

- a. Air shall enter through the stainless steel nipple of the diffuser, into the chambered end of the plug, and then into the space between the membrane and the diffuser body. This shall cause the membrane to inflate and open the slots of the membrane, releasing air as fine

bubbles into the liquid. When the air supply is stopped, the flexible membrane deflates allowing the slots to close and the membrane to collapse against the PVC support tube, thereby stopping any backflow of liquids into the diffuser.

3.01 INSTALLATION

- A. Installation will be performed by treatment plant maintenance personnel.

Bid Form

Pigeon Forge Fine Bubble Diffusers

Bidders Name: _____

Address: _____

City: _____ State: _____ Phone: _____

Description

Price

850 Diffusers

Shipping

TOTAL

F.O.B. 2428 Library Drive, Pigeon Forge, Tennessee