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July 8, 2009

I.H. Consultants, Inc. 605 Bloomfield Avenue, Suite 5 Montclair NJ 07042

Attention:

Mr. Uday Singh

Re:

Ultraviolet Light for STP Odor Control

Dear Mr. Singh:

Throughout the municipal wastewater treatment industry, it has been difficult to find a means to control odors in a cost-effective and efficient manner. Whether it be due to the inclusion of highly reactive chemicals (such as potassium permanganate) or expensive mechanical equipment (such as activated carbon adsorption systems), the cost of reducing odors is always a concern. The marginal reduction in odors almost does not always seem worth the expense. However, a reduction in the number of complaints from neighbors can be used as a benchmark for substantiating the cost of installing odor control equipment in wastewater treatment plants.

We recently have been introduced to the use of ultraviolet light to combat odor problems. Our first experience was with a small sewage treatment plant with reported odor problems in and around the sludge holding tank and around the exterior of the enclosed STP. In that case, an air hood and air recycle system with an ultraviolet light setup was installed. Prior to the installation of the system, there had been complaints about odor from neighbors. Since installing the system, we have not been made aware of any odor complaints. One additional benefit observed was that the installed UV system removed much of the odors that are normally present in the interior of an enclosed STP, not just the exhaust air.

Since our first experience with UV was positive, we have incorporated the ultraviolet light odor control system into a treatment plant presently being designed. That plant is designed to treat 200,000 gallons per day (GPD) of raw sewage, and we expect results similar to the first installation cited above.

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We thank you for your cooperation in performing the pilot study for the initial installation as well as providing guidance for sizing the units for the new design. We look forward to continued use of the UV odor control system.

Very truly yours,

MICHAEL P. CHIARELLI ENGINEER, P.C.

Matthew P. Scheiner Project Manager

MPS/mps