



April 29, 2016

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Dear Dr. Young and Mr. Pabst:

Enclosed is the DEP Response to the NYSDOH/USEPA Comments on Revised 2007 FAD Deliverables submitted through February 2016.

As always, if you have any questions about these comment responses or other aspects of the City's watershed protection efforts, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'David S. Warne', with a long horizontal line extending to the right.

David S. Warne
Assistant Commissioner

**DEP Response to NYSDOH/USEPA Comments on the FAD Deliverable Reports
Submitted February 28, 2016
Response Date April 29, 2016**

6.2 Wastewater Treatment Plant Compliance Inspection Reports Summary – 3rd and 4th Quarters 2015

The semiannual Wastewater Treatment Plant Compliance Inspection Report was submitted as required by the Revised 2007 FAD. NYSDOH/USEPA offer the following comments and requests for clarifications:

Several Unsatisfactory and/or Marginal ratings given to items during the 3rd quarter were changed to satisfactory during the 4th quarter inspection due to necessary improvements. However, malfunctions at the Roxbury Run Village WWTP (Delaware County) seem to persist. Please provide an update on the performance status and the anticipated steps that would lead to improvements.

DEP Response:

The primary concern at the Denver Sewer Corporation WWTP (formerly Roxbury Run WWTP) is the age and condition of the continuous microfiltration (CMF) process. They employ an Evoqua (formerly Siemens) high-pressure backwash CMF with polypropylene, oxidizer sensitive membranes; common within plants that were improved during the early stages of the Regulatory Upgrade Program (RUP). The industry has since abandoned this type of unit; newer CMF's institute low pressure, polyvinylidene fluoride, chlorine resistant membranes that are more efficient, longer lasting, require less maintenance and allow for greater operator flexibility. The older, high pressure backwashing units typically have issues with structural integrity. Pipe fittings and manifolds would routinely break and require replacement, rendering the unit out-of-service. The operator, with the full cooperation of the RUP, has performed all necessary maintenance to ensure the continuous operation of the CMFs. Historically; the facility is fully compliant with its SPDES parameters. The Denver Sewer Corporation WWTP has been identified as a priority facility; and the microfiltration equipment will be replaced under the capital replacement program.

Several facilities (for example, Boiceville, Trailside at Hunter, and Walton) appear to have experienced a variety of problems ranging from I&I issues, detection of *Giardia* cysts, and elevated turbidity levels. Additional information/updates on actions that have been taken to improve performance at these facilities will be appreciated.

DEP Response:

Boiceville WWTP: As indicated within the semi-annual deliverable, the third quarter inspection reported a marginal rating for influent impact on operations based on infiltration and inflow (I&I) effecting the secondary treatment process. The fourth quarter inspection report revised this rating to satisfactory based on the success of I&I investigation and remediation by plant staff.

The plant has successfully replaced the air supply tubing and removed the sand media from one upflow sand filter. Once the media is replaced, the unit will be placed back in service and this maintenance task will be completed on the second filter. The chief operator and his staff should be commended for their proactive approach to process maintenance.

Trailside at Hunter WWTP: As indicated within the semi-annual deliverable, the facility has been in a state of flux due to changes in plant operations, management and individuals responsible for plant fiduciary functions. Furthermore, significant deficiencies in the plant SCADA system have been identified. To remedy the deficiencies, DEP staff provided technical support to the new operators and intervened with SCADA support vendors on the operator's behalf to expedite repairs. The SCADA issues deal directly with the Continuously Backwashing Upflow Dual Sand Filters (CBUDSF), the repairs should have a positive impact on that systems operation. DEP coordinated the transition of plant operations payments from receivership back to the permittee. In doing so, DEP's expectations were made very clear and we hope all plant vendor payment issues are a thing of the past.

DEP has conducted numerous inspections since the Giardia detection to perform unannounced reconnaissance and compliance inspections in addition to the routine quarterly inspection. Details related to the air lancing procedures are provided further down this report.

Walton WWTP: The RUP has commissioned the facility to remove and install new media within the CBUDSF. An estimate for the work is forthcoming.

The pathogen sample from Trailside at Hunter (Hunter Highlands) that had 26 Giardia cysts was collected soon after the CBUD unit was put back on-line after air lancing. Has DEP previously noted any similar incidence of elevated pathogen levels after air lancing? Please describe any studies done on CBUDs (by DEP or others) to investigate the presence of pathogens in filter effluent after air lancing.

DEP Response:

DEP staff have been working with CBUDSF since 1997 when they were originally piloted at the Delhi and Stamford WWTPs. To date, DEP has not observed any correlation between air lance date and subsequent pathogen detection. The practice of air lancing is standard in CBUDSF maintenance and is typically an asset to filter operation, not a liability. The filter must have enough time to recirculate following an air lance to ensure proper particulate removal. It is not known exactly how long the filters were recirculated before the pathogen sample collection. The new operator performed an air lance in March 2016; they discovered a large volume of the filter surface area at the bottom of both units was saturated with solids and coagulant. They broke up this bound layer with sodium hypochlorite and extreme physical force. They were successful in restoring the filters to their full capacity. A revised air lancing protocol and coagulant feed regime, devised in conjunction with DEP technical assistance, should remedy any filter concerns.

6.2 Wastewater Treatment Plant Water Quality Sampling Monitoring Semiannual Report (July 1 – December 31, 2016)

The semiannual report on water quality sample monitoring of the NYC-owned and non-City-owned WWTPs was submitted as required by the Revised 2007 FAD.

The report indicates that in spite of the fact that DEP staff was very proactive in preparing operators/owners for the upcoming camp season, some camps still experienced multiple sewage treatment malfunctions during the season (such as Machne Tashbar and Timberlake). Please provide information regarding improvements that would need to be done to avoid similar issues in the upcoming 2016 season.

DEP Response:

This is a recurring agenda item for the spring WECC meeting; it will be addressed on April 21, 2016. DEC will send a reminder letter to applicable seasonal facilities making them aware that wastewater treatment plants must be operated under the supervision of an appropriately licensed NYS WWTP operator in accordance with Part 650, and that they will be contacted by either DEC or DEP to schedule pre-season inspections.

There were no abnormal operating conditions at the Machne Tashbar WWTP that could have led to the ammonia and total suspended solids exceedances. The ammonia readings occurred during the start of the camp season. It is possible the facility was unable to provide sufficient nitrifying bacteria within the secondary process for adequate removal. DEP will make every effort to ensure the suspended growth process is properly seeded and aerated prior to the start of the camp season. The facility utilizes CBUDSF for tertiary treatment; the suspended solids exceedance appears to be an anomaly.

Camp Timberlake experienced one dissolved oxygen and one temperature exceedance during the reported period. These readings appear to be isolated events; there were no mechanical or process control abnormalities that led to these events.

If available, please provide more information regarding the identified or suspected cause of elevated fecal coliform levels detected at Tannersville WWTP on September 16, 2015.

DEP Response:

There did not appear to be any mechanical or process control abnormalities that could have led to the elevated reading. Plant self-monitoring data indicates full compliance with all wet chemistry and bacteriological parameters.