UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Kelly Burch, Director
Northwest Regional Office
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481

SEP 21 2009

Re: NPDES Permit No. PA0028428
Brockway WWTP
Brockway Borough, Jefferson County

Dear Mr. Burch:

The draft National Pollutant Discharge Elimination System (NPDES) permit renewal for the above-referenced facility was received by the U. S. Environmental Protection Agency (EPA) on June 23, 2009, for review pursuant to 40 CFR § 123.44 and the Memorandum of Agreement (MOA) between EPA and the Pennsylvania Department of Environmental Protection (PADEP). EPA issued a general objection/time extension letter on July 17, 2009. This letter is a specific objection to the issuance of the referenced permit based on 40 CFR § 123.44(c)(4) & (c)(8) and it is being submitted pursuant to 40 CFR § 123.44(b)(2) and Section III.A.2. of the MOA.

EPA's objection to the draft permit and identification of revisions needed for EPA to remove the objection are described below. Additional information is contained in the enclosed letter to Dana Aunkst dated September 21, 2009. The enclosed letter addresses several issues regarding the PADEP's calculations and assumptions in proposing effluent limitations for Total Dissolved Solids (TDS). Discussed below are the issues specific to the Brockway draft permit.

Monthly Q7-10 Calculations

Pennsylvania defines Q7-10 flow in the Commonwealth's Chapter 96 regulations as "The actual or estimated lowest 7 consecutive-day average flow that occurs once in 10 years for a stream with unregulated flow, or the estimated minimum flow for a stream with regulated flow." PADEP has argued that this definition does not prohibit the Department from looking at individual months to calculate 12 separate Q7-10 flows for the same waterbody. This monthly Q7-10 determination is being applied to the calculations for TDS effluent requirements to satisfy both the local water load (near field) and the far field in-stream analysis of meeting 500 mg/l at the point of the nearest drinking water intake.

Most of the water quality criteria established in the Commonwealth's regulations at Chapter 93, including TDS, was not derived as monthly values. The development of "monthly" Q7-10 flows is inconsistent with the commonly accepted calculation approach of a Q7-10 flow and has not been the interpretation or approach used by PADEP to develop NPDES permit limits in the past. Monthly Q7-10 flows do not appear to be the intent of the Chapter 96 definition. This is clearly not a typical approach for calculating a Q7-10 flow, and it leads to higher Q7-10 values that result in less stringent loads. EPA does not believe this to be a good precedent to set. NPDES permits are to be developed based on critical conditions and PADEP regulations / guidance use the Q7-10 as the critical condition to protect aquatic life.

Although the Brockway draft permit as currently written suggests that interference of the biological processes at the treatment plant yields a more stringent effluent limit than the near field or far field analysis, in order to resolve this portion of our objection, PADEP must reanalyze and document the far field requirements to include calculations based on the normal "annual" Q7-10 calculations. The permit then must be redrafted, if necessary, to include the more stringent requirement. For the near field analysis, please refer to the next section.

Near Field TDS Analysis – 1,800 mg/l Instream

Based on the limited information available to EPA regarding the correlation between the Chapter 93 criteria for Osmotic Pressure (OP) of 50 mOs/kg and a TDS concentration of 1,800 mg/l, EPA recommends that the permit include a numeric water quality based effluent limit (WQBEL) for OP based on the existing Chapter 93 standard. This would take the place of the "near field" analysis of TDS and limit the discharge on water quality criteria that is applied at the point discharge.

Therefore, in order to resolve this portion of our objection, PADEP must include both 1) the more stringent TDS limits of the "far field" (based on an annual Q7-10 flow) or inhibition of the POTW treatment process and 2) the WQBEL for OP (also based on an annual Q7-10 flow).

Final TDS Limits

According to page 6, paragraph (2)(b)(i), of PADEP's April 11, 2009 "Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges", POTWs currently accepting brine wastewaters through an approved permit must also be given a final TDS effluent limit currently proposed at 500 mg/l effective on January 1, 2011. The Brockway POTW was permitted to accept brine wastewater through a permit action in 2007. However, the draft permit renewal incorrectly assumes that POTWs currently approved under a permit to treat brine wastewater are exempt from complying with the final average monthly limit of 500 mg/l. As a result, the draft permit is currently written to allow the "interim period" TDS limits for the life of the permit. Interim period limits should only be effective until December 31, 2010.

Therefore, in order to resolve this issue, the draft permit must be corrected to include the final limit of 500 mg/l effective January 1, 2011.

I understand that a majority, if not all, of these issues need to be coordinated with your Central Office in Harrisburg. As these issues affect other NPDES facilities in the Commonwealth, we are sending a separate letter to PADEP Central Office (copy enclosed) in order to address these issues across the Commonwealth. In the meantime, the permit for Brockway should not be issued without written authorization from EPA.

If you have any questions, please contact me, or Brian P. Trulear of my staff at (215) 814-5723.

Sincerely,

Jon M. Capacasa, Director
Water Protection Division

Enclosure

cc: Ron Furlan, PADEP Central Office
Ricardo Gilson, PADEP Northwest Office
David Balog, PADEP Northwest Office
Stephen McCauley, PADEP Northwest Office
Timothy Keister, Brockway Area Sewage Authority