ATTACHMENT II

RESPONSE TO COMMENTS ON
DRAFT NPDES PERMIT FOR
City of Salamanca Wastewater Treatment Plant NY0020508

On July 31, 2014, the United States Environmental Protection Agency (EPA) issued a draft National Pollutant Discharge Elimination System (NPDES) permit NY0020508 to the City of Salamanca for its Wastewater Treatment Plant (WWTP) facility. The public comment period for the draft NPDES permit expired on August 31, 2014.

According to 40 Code of Federal Regulations (CFR) §124.17, at the time that any final permit decision is issued under §124.15, EPA shall issue a response to comments. This response shall (1) specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and (2) briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

Comments on behalf of the City of Salamanca WWTP from Keith King, General Manager of the City of Salamanca Board of Public Utilities PRASA were received in a letter dated August 26, 2014 at the following address:

City of Salamanca
Board of Public Utilities
225 Wildwood Avenue Suite 6
Salamanca, NY 14779-1580

All comments received have been reviewed and considered in this final permit decision. A discussion and response to the comments received is as follows:

Comment 1: Total residual chlorine (TRC) discharge limitations

As the USEPA is aware, extensive comments were made by the Salamanca BPU during the 2008 draft NPDES permit issuance stage. In the USEPA's response to comments that were issued by the USEPA in 2008 (Part I.B.3. of the response) the following text (in italics) was the USEPA's position in 2008:

EPA Region 2's Response – *While EPA agrees that the memo entitled Guidance on EPA's NPDES and Sludge Management Permit Procedures on Federal Indian Reservations is applicable to this permit, we do not agree as to how it should be applied in this permit. EPA's position is that the New York State Water Quality Standard applies and should be applied at or near the point of discharge to be protective of water quality. We have recalculated the permit limit based on the New York Water Quality Standard for Total Residual Chlorine in Class C waters. The following is our calculation of the limit based on the New York Water Quality Standard for Total Residual Chlorine in Class C waters. The following is our calculation of the limit based on information provided by the City of Salamanca.*

Qr = Allegany River 7Q10: 120 cfs

Source: Published 7Q10 MA7CD10 in 1979 Low Flow Frequency Analyses of Steams in New York Bulletin 74 ("Bulletin 74") prepared by NYSDEC/USGS for USGS gauging station 03011020 "Allegany River at Salamanca", about 1.5 miles upstream of the WWTP discharge.5

Qe = Average Design Flow of WWTP – 1.5 MGD (2.325 cfs).
Source: City of Salamanca memorandum to NYSDEC dated May 17, 2005, provided as "Actual Average Flow", later clarified by permittee comments dated February 11, 2008 as Average Design Flow

The Allegheny River is a Class C water, therefore the chronic water quality standard of 5ug/l applies for total residual chlorine (TRC). Use as Cr in equation.
Dissipation Factor (DF) = 5

Source: NYSDEC Memorandum issuing Amendment to TOGS 1.3.1E, "Total Maximum Daily Loads and Water Quality-Based Effluent Amendment- Permit Limit Development for Certain Parameters" Dissipation Factor = 5 for TRC.

Water Quality Based Effluent Limit (WQBEL) Ce = Cr x DF x (Qr + Qe)/Qe
WQBEL = (5 ug/l) x 5 x (120 + 2.325 cfs)/(2.325 cfs) = 1315 ug/l = ***1.3 mg/l for TRC.***

Since nothing changed between 2008 and 2014 with regard to the Allegheny River, the BPU wastewater treatment plant, or the water quality standards for TRC; we see no reason why the TRC limit has been lowered to 1.0 mg/l. The 1.0 mg/l TRC limit appearing in the draft permit was calculated by using 2.0 MGD for the plant's average design flow; rather than 1.5 MGD which has been used by the USEPA in the past. The facility is permitted for up to 2.0 MGD of flow on an average monthly basis, but the plant design basis per the original construction drawings was 1.5 MGD. For 2013 and 2014 to date (through the end of July 2014), the actual wastewater treatment plant average daily flow has been 1.4 MGD. Therefore, we see no reason to revise the calculation for TRC using the higher flow, and believe that the calculation should continue to be based upon the 1.5 MGD used previously. We therefore respectfully request that the TRC limit be returned to the current limit of 1.3 mg/l based upon a design flow of 1.5 MGD.

In addition to the above issue we noticed that the fact sheet calculations are not consistent with the limits shown in the draft permit. We are not sure if this inconsistency requires the USEPA to reissue the draft permit.

Response 1:

The effluent limitation in the permit for Total Residual Chlorine is based on calculations using the plant's current average design flow of 2.0 MGD. Calculations cannot be based on past design flow.

EPA notes Salamanca's concern about the inconsistency with the fact sheet and the limit in the draft permit. This typographical error has been corrected.

Comment 2: Minimum percent removal requirements for BOD_5 and TSS

The BPU has commented in the past on the BOD_5 and TSS removal efficiencies that are appropriate for this facility. The permit issued in 2008 required the following minimum removal efficiencies:

- 60% BOD_5 removal efficiency
- 55% TSS removal efficiency

The current draft permit increases both of these removal percentages to 85%. We realize that the 85% removal requirement is a technology based effluent standard but this facility is not capable of consistently meeting these removal requirements due to the nature of the influent wastewater. Data presented in Attachment A analyzes the facility's influent and effluent BOD_5 and TSS and calculates the percent removal efficiencies for 2013 and 2014 (through the end of July 2014). We have used this time frame because it represents a period of time when Seneca Nation Casino wastewater flows no longer were being discharged to the Salamanca BPU. As the USEPA is aware, the presence and uncertainty of the Seneca Nation wastewater flow has been brought up in our previous NPDES permit comments (2008). The data in Attachment A also includes the daily precipitation and the daily plant flow (minimum, maximum, average). At the end of the table the percent removal data is summarized on a daily average basis and a monthly average basis. Since the percent removal discharge limits in the draft permit are based upon average monthly data, we will comment on those results. Examining the monthly average percent removal data, the facility would not meet the 85% removal requirements as follows:

- BOD_5 – 58% of the months (11 out of 19 months) are less than 85% removal
- TSS – 26% of the months (5 out of 19 months) are less than 85% removal

The Federal standards at 40 CFR 133 allow for exceptions to be made to the 85% removal requirement based upon the fact that adequate treatment is being provided BUT the influent strength is such that the 85% removal criterion cannot be met. The WWTP consistently achieves its monthly and 7-day average BOD_5 and TSS discharge limitations for concentration (30/45 mg/l) and mass based limits (500/750 lbs per day). Further to meet the 85% removal efficiency requirement, the wastewater treatment plant would need to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards. The less concentrated wastewater is not the result of excessive I/I as defined in the regulations and the total plant influent is less than 275 gpcd as described at 40 CFR 133.103 (d). These provisions follow the regulations at 40 CFR 133.103 (d) which allow lower percent removal requirements for less concentrated influent wastewater at separate treatment works. Please note that the facility has previously performed a sewer separation study and has implemented it. The work included extensive sewer rehabilitation, the results of which were reported to the NYSDEC in the 1990s. In addition, as a result of implementing its Wet Weather Management Plan, the facility has eliminated its bypasses and system overflows. At this time that there are no opportunities for cost-effective I/I abatement as defined in 40 CFR 35.2005.

Therefore we respectfully request that the percent removal requirement be returned to their current values of 60% BOD_5 removal efficiency and 55% TSS removal efficiency.

Response 2:

EPA has explained that the limits were established to ensure compliance with the technology based effluent standards for facilities with secondary treatment. EPA must point out that water quality-based limits must be achieved irrespective of economic or feasibility considerations in accordance with Clean Water Act Section 301 (b)(1)(C).

In addition, the facility does not meet the provisions required in the regulations at 40 CFR 133.103 (d) which allow lower percent removal requirements for less concentrated influent wastewater at separate treatment works. EPA has calculated that the total plant influent is not less than 275 gpcd as described at 40 CFR 133.103 (d) on a consistent basis. Therefore, the 85% percent removal for both TSS and BOD_5 have been retained.