Message

From: Jeffrey Hilton [Jeffrey.Hilton@tampagov.net]
Sent: 11/12/2015 8:35:18 PM
To: FloresThiebaud, Astrid [Astrid.FloresThiebaud@dep.state.fl.us]; Champion, Jacquelyn [Jacquelyn.Champion@dep.state.fl.us]
CC: Kaur, Ramandeep [Ramandeep.Kaur@dep.state.fl.us]
Subject: RE: Questions regarding NPDES permit FL0020940

Please find below the City's response to EPA's question number 2:

1. **Copper:**
   A daily maximum copper concentration result of 3.8 µg/L is inadequately above the FDEP Class III Marine surface water quality criteria of 3.7 µg/L to address the measurement error associated with the reported result. The measurement uncertainty range associated with the reported result of 3.8 µg/L would undoubtedly include concentration values below the 3.7 µg/L surface water criteria level. The true value for the copper concentration for the sample analyzed will fall within the range of the reported result (3.8 µg/L) plus or minus an estimate of the measurement uncertainty. As such, the reported result lacks the clear confirmation of an exceedance given the limitations (definable measurement error) inherent in the analytical measurement process. Additionally, this parameter remains in the draft permit and the City will therefore, continue to monitor for copper.

2. **Benzo (a) pyrene & Dibenzo (a,h) anthracene:**
   In the case of these two organic compounds, the reported results for both compounds are 0.01 µg/L (1/100th of a ppb) above the method detection limit for the methodology (EPA 625) used to analyze these compounds. These data should be qualified with "I" qualifiers to direct the data user's attention that these data fall between the method detection limit (MDL) and the practical quantitation limit (PQL). These data qualifications inform the data user that these data do not have the precision and accuracy of data reported above the PQL. Data qualified in this manner reflect the substantive limitations in attempting to quantitate sample concentrations below the PQL. As a matter of commonly used convention, the PQL is routinely established at 4 times the concentration of the statistically derived MDL value.
   Another quantitation issue associated with these organic compounds involves the MDL concentrations reported for this methodology (EPA 625). As can be observed in the data summarization attached, the MDL concentration is 0.93 µg/L for Benzo (a) pyrene and 0.94 µg/L for Dibenzo (a,h) anthracene. The FDEP Class III Marine surface water quality criteria is ≤ 0.031 µg/L (annual average) which is significantly below these MDLs.

   HFC AWTP effluent samples were also analyzed for these two compounds earlier this year by two other labs (FDEP; Test America). The MDLs reported by those two labs for these compounds are as follows:

	FDEP Lab MDL	Test America Lab MDL
Benzo (a) pyrene	0.22 µg/L	0.51 µg/L
Dibenzo (a,h) anthracene	0.22 µg/L	0.40 µg/L

   Once again these MDLs are above the applicable FDEP surface water criteria. These data reflect the reality that the MDLs for the analytical methodologies routinely used to analyze these compounds are significantly above the applicable surface water criteria levels.

   As such, the analytical methodologies typically available are not currently capable of quantitating the concentrations of these two compounds with adequately defined precision and accuracy below their PQLs which are significantly above the relevant surface water criteria.

Please let me know if you have any additional questions.

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From: FloresThiebaud, Astrid [mailto:Astrid.FloresThiebaud@dep.state.fl.us]
Sent: Wednesday, November 04, 2015 11:13 AM
To: Jeffrey Hilton
Subject: FW: Questions regarding NPDES permit FL0020940

Good morning Jeff,

Please see below comments from EPA regarding the above-reference facility. Call me to discuss item #2.

Sincerely

Astrid

From: Wahlstrom-Ramler, Meghan [mailto:Wahlstrom-Ramler.Meghan@epa.gov]
Sent: Friday, October 30, 2015 3:32 PM
To: FloresThiebaud, Astrid <Astrid.FloresThiebaud@dep.state.fl.us>
Subject: Questions regarding NPDES permit FL0020940

Astrid,

It was great talking to you today. Below is a summary of my questions:

1) My first question is regarding the Secondary Treatment Standards of 85% removal for BOD_5 and TSS. I wasn't able to find any reference of that requirement in the permit. If it's not there, do you know when/why it was removed?

2) My second question in regarding the reasonable potential analysis for the effluent sample that was submitted with the facility's application. When I looked at the sampling results, it looked like there were detections of several parameters, most of which were under the Water Quality Standards. There are three, however, that I'm unsure of. The first is copper. According to the results, the daily maximum concentration for copper was 3.8 ug/L and the average daily concentration was 2.3 ug/L. In comparison, the FL Class III marine waters limit is 3.7 ug/L. Based on that, it looks like the daily max concentration is above the limit. Maybe that 3.7 ug/L isn't comparable to the daily max? The second is benzo(a)pyrene. According to the sample results, the daily max was 0.94 ug/L and the average daily was 0.93 ug/L. The FL Class III marine waters limit, however, is 0.031 ug/L annual average. How was it shown that benzo(a)pyrene was not in violation of the annual average. Finally, the third parameter is benzo(a,h)anthracene. The sampling results showed a daily max of 0.95 ug/L and an average daily of 0.94 ug/L. As with benzo(a)pyrene, the Class III marine waters limit is 0.031 ug/L annual average.

Thanks!

Meghan

Meghan Wahlstrom | Environmental Engineer | Water Protection Division | USEPA Region 4

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