April 20, 2010

By Electronic Mail

The Honorable Lisa P. Jackson
Office of the Administrator
Environmental Protection Agency

EPA Modified a Final ELG in 2003

There is recent precedent for modifying a final ELG. After the promulgation of the Centralized Waste Treatment (CWT) ELG in

Passive systems involve the addition of polymer to check dams or to channeled runoff leading into sediment basins. They are truly passive in that they are designed and placed into operation before a storm event—there is no expectation that manual adjustments will be made during operation, and they certainly do not require the constant oversight of an ATS. For a number of reasons explained in the attached Pechan memorandum,[4] the passive treatment design cannot meet the 280 NTU performance standard on a regular basis. Therefore, the compliance costs of a 280 NTU limit should be based on the cost of a modified ATS, not a true passive treatment system.

URS Corporation has estimated the costs of an ATS without sand filters, which would be required to regularly achieve a 280 NTU limit with confidence throughout the country.[5] A conservative annual cost estimate of approximately $9.7 billion is estimated for this standard reflecting the fact that facilities would be using the modified ATS technology, instead of a PTS to comply with the ELG. This contrasts with EPA's estimated cost of $953 million per year.[6] Given the conservative nature of the $9.7 billion URS cost

establishing the standard. This approach results in a huge disconnect between the technology used to estimate the costs of the ELG and the technology used to estimate its

In addition, the one example in the record where the engineers attempted to use a PTS to comply with a low turbidity target is instructive. The Morrisville, NC site first tried a true PTS employing flocculant logs and then chitosan "gel-socks" (permeable fabric sleeves containing polymer), placed in drainage areas prior to basin locations, but were "unable to reduce turbidity at all." Even after pumping water through chitosan gel-socks/cartridges placed in pipes, and settling in separate treatment tanks/cells, the site engineers reported to EPA that they were only able to reduce turbidity down to about 500 NTU (well over the 280 NTU standard), and therefore proceeded to develop an ATS for the site.[16] Yet EPA made no mention of the failure of a PTS, or even a hybrid PTS/ATS, to meet the standard in the final rule.

III. Correction of One or More of These Errors Would Result in a Turbidity Standard in Excess of 500 NTU

In the Pechan memorandum, we suggest a variety of methods whereby EPA can correct one or more of these technical errors, and could re-promulgate a higher numeric limit.[17] In the first instance, EPA should clearly redo the Sea-Tac calculations, using Sea-Tac as representing either three facilities, or more appropriately, one facility.[18] If EPA only corrects the most egregious Sea-Tac error, compiling the data to represent three treatment facilities, the resultant limit would be 501 NTU. If it uses Sea-Tac as a single facility, the number would be 652 NTU.[19] EPA also needs to re-examine generally its inclusions and exclusions of data from ATS facilities. Lastly, if EPA were to rely solely on data from true PTS facilities, the number would be 793 NTU.[20]

---

[16] "The contractor was attempting to passively treat the water using Poly acrylamide (PAM) "floc logs" prior to us being called in, but was unable to reduce the turbidity at all because of the large volumes of water, highly turbid water (>3000 NTU), and colloidal red clay soil type. We also attempted to passively treat the water prior to each of the basin locations using Chitosan lactate (gel-socks), however found that the water treated best by pumping to isolated tanks or cells with the chitosan lactate sock/cartridge installed within the plumbing just after the pump. After about a 20 minute settling time this would bring the turbidity down to about 500 NTU." Email from Nate Holloway, Clear Water Compliance Services, Inc. to Jesse Pritts, U.S. Environmental Protection Agency, titled "FW: ATS Data," August 26, 2009 , Docket ID EPA-HQ-OW-2008-0465-1943).

[17] The Pechan memorandum only addresses approaches to fix the numeric limit, including relying solely on PTS data for the calculation of the limit. This letter addresses the other option to employ an action level approach.

[18] Sea-Tac could represent three facilities since there were three separate pretreatment systems on site. On the other hand, Sea-Tac does represent an outlier facility in several respects, and there is a good argument that it should be represented no more frequently than any other site in the calculations (see Pechan memorandum for details).

[19] The enclosed URS Report provides a more extensive analysis of the many deficiencies of the derivation of the 280 NTU limit. This provides substantial additional information to the Pechan memorandum.

[20] If EPA were to include data from the disruptive PTS events that were omitted in the studies, the limit calculation would be even higher (see text elsewhere in this letter). The 793 NTU is derived from data for the three treatment systems that clearly represent passive treatment (i.e., NC.Road, NCR.1, and NCR.2). See the Pechan memorandum for the derivation of the 501, 652 and 793 values.

IV. An Action Level Approach is the Most Appropriate Solution

A turbidity-based action level approach is likely the best solution for this ELG for a large number of reasons. Under an action level approach, a facility that exceeds a benchmark (action) level must re-evaluate and document the effectiveness of its best management practices to minimize discharges.

First, the available literature on PTS performance shows a wide variability in the turbidity

VI. Conclusion

Based on the information described above, EPA needs to revise the ELG to address