

PRETREATMENT CORNER

Local Limits Reevaluations - What Has Changed?

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Every five years we have to renew the wastewater treatment facility NPDES permit and with this permit reissuance comes the standard language in Part C of the permit... "The permittee shall submit to EPA and DEP, a reevaluation of its local limits based on a headworks analysis of its treatment plant within one year of permit issuance. The list of pollutants to be evaluated, as well as a sampling plan for the collection of necessary data, shall be submitted to EPA and DEP within three months of permit issuance. Within six months of acceptance of the headworks analysis by the Approval Authority, the permittee shall adopt the revised limits and notify all contributing municipalities of the need to adopt the revised limits."

Why, you may ask, do we have to go through this reevaluation again, when chances are, the last one still hasn't been finalized. How many of you have been caught in that scenario? Well, if this is not the case for you, let's trudge through the steps of why a reevaluation may be necessary.

First, has the treatment facility undergone any modifications or upgrades? Have treatment processes been removed, added or altered in any way? Have new industrial dischargers moved into the sewer service area or have existing industrial dischargers ceased operations? Has the commercial or institutional sewer customer base changed? Has the treatment facility influent flow changed more than 10 percent? Have influent, effluent or biosolids priority pollutant analyses identified new pollutants of concern? If the answer is "Yes" to any of the above questions, a reevaluation may be necessary.

Second, compile all domestic, commercial, industrial, influent, other intermediary process wastestreams, effluent and biosolids analytical test data collected since the last evaluation. Develop a preliminary list of pollutants of concern (POC) by including any pollutant that was detected in any of the above samples. Fine tune the POC list by determining which pollutants have NPDES or water quality based effluent limits (WQBELs), chronic, acute or human health water quality criteria, trickling filter, activated sludge, nitrification and anaerobic digestion inhibition criteria, and biosolids disposal criteria. The WQBELs are found in the Water Protection Report DEP prepares as part of its review for the NPDES permit renewal. Make sure the most recent sources are used for selecting the water quality criteria. EPA periodically updates the *National Recommended Water Quality Criteria*. The most recent amendments to this EPA document were made in November 2002 and again in December 2003. An interesting caveat in EPA's document...if a drinking water standard exists for a specific pollutant, that standard, if more stringent than the listed criteria, may be used as the human health criteria. As of this date, Pennsylvania has not yet adopted EPA's revised water quality criteria. Each state with NPDES primacy is required to periodically reevaluate its water quality criteria. Pennsylvania's water quality criteria is contained in 25 Pa. Code § 16.

EPA now recommends 15 pollutants be included on the POC list: Ammonia Nitrogen, Arsenic, BOD₅, Cadmium, Chromium, Copper, Total Cyanide, Lead, Mercury, Molybdenum, Nickel, Silver, Selenium, Total Suspended Solids and Zinc. In addition, don't forget those pollutants that are identified in any of your SIUs' federal categorical pretreatment standards.

Now, sit back, relax and digest all of the information you compiled so far. Nine times out of ten, something has changed during the past five years. We live in a world of ongoing change. Nothing is static.

The following comments are just a few of the interesting items I have come across in recent years relative to local limits evaluations that are not necessarily included in EPA's 2004 *Local Limits Development Guidance*.

Did you know that EPA allows you to use the mean stream flow instead of the Q₇₋₁₀ flow for determining effluent quality based allowable headworks loadings (AHLs) based on human health criteria? Did you know it is okay not to pursue effluent quality based AHLs for chronic, acute or human health water quality criteria if an

NPDES permit limit or WQBEL exist for a pollutant? Did you know that it is preferable to use one-half of the detection level for a pollutant that is non-detect when averaging with other detectable data? Did you know it is okay to eliminate some data points that may be several magnitudes higher than most of the data for a pollutant as they may be anomalies? Did you know that most of the metals listed on Pennsylvania's water quality criteria table in 25 Pa. Code § 16 are presented as dissolved metals and must be converted to total metals? Did you know that EPA now looks at influent, effluent and biosolids goals as part of the local limits evaluation? Did you know it is okay to adopt Maximum Allowable Industrial Loadings (MAILs) as mass, in Lbs/Day, instead of concentration-based limits, in mg/L?

Now it is time to get to work on those Local Limits. Remember...you are being a good environmental steward by ensuring your facility's Local Limits protect the receiving stream, the treatment process and the biosolids, which can impact land, water or air, as well as protect human health and the environment.