



County of Sacramento

#60

September 10, 2013

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

SUBJECT: Comments on July 2013 Draft Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for the Discharge of Storm Water Associated with Industrial Activities, Order No. CAS000001

Thank you for this opportunity. Sacramento County Department of Waste Management and Recycling (DWMR) is responsible for 3 landfills and two transfer stations, including the Kiefer Landfill and North Area Recovery Station facilities, that will be subject to the subject permit (General Permit). Our comments on the General Permit are as follows:

1 Section XI.B.7, Table 2, Annual NAL for Iron

Comments:

DWMR believes the 1 mg/l NAL for iron will be difficult to achieve due to high background levels. DWMR agrees with the following comment submitted in 2011 by Chip Monaco of Orange County Waste & Recycling, who was citing a study by the Los Angeles County Department of Public Works (LACDPW):

“This same study conducted by LACDPW evaluated total iron concentrations (among other constituents) in stormwater runoff from vacant and open (i.e., undisturbed) land in LA County. The mean total iron concentration detected in the stormwater samples collected from vacant/open land was 3.0 mg/l [LACDPW, 1994-2000]. The total iron data collected as part of this study indicate that on undisturbed and vacant land the background iron concentration in stormwater exceeds the NAL of 1.0 mg/l, therefore, it is unreasonable to assume that the proposed total iron NAL is achievable for facilities in Southern California.”

(Reference: Letter dated April 28, 2011 from OC Waste & Recycling to Jeanine Townsend)

DWMR does not have any background locations available at its transfer stations where the highest levels of iron are being recorded. This is due to the highly urban nature of these locations. However, at the main County landfill (Kiefer Landfill), which is located in a rural portion of the County, infrequent sampling from Deer Creek upstream of the landfill indicates average total iron concentration of 4 mg/l (2 measurements) that corroborates the LACDWP results. At our Elk

Grove Landfill, which is located in a semirural area, dissolved iron is a regular monitoring parameter, and average dissolved iron concentration at Laguna Creek upstream of the landfill has been 0.42 mg/l (33 measurements), with a standard deviation of 0.4 mg/l and a calculated Concentration Limit of 1.35 mg/l. The older Laguna Creek data from rural Elk Grove prior to development in the drainage exhibits similar concentrations. Please note that these are dissolved iron concentrations and do not include the undissolved (suspended) iron component. The total (dissolved plus undissolved) iron concentration is likely to be much higher, as ordinary runoff will usually contain suspended iron from soil erosion.

DWDMR believes that the NAL for iron was probably set at 1 mg/l to agree with aquatic life standards. However, most of the studies backing this standard used dissolved iron, known to be more toxic than suspended iron (which is probably the dominant form of iron present in runoff from our stormwater monitoring locations).

More recent (1992) findings from the same agency cited by EPA as one of two primary references (1964) for the 1 mg/l water quality standard for aquatic life (1976) for iron:

“The successful cultivation of trout in water with high concentration of iron (5 to 10 mg/l ferric hydroxide, pH values of 6.7 to 7.4) demonstrates that the toxicity of this metal may be dependent on its speciation; aged precipitated iron is less toxic than freshly flocculated iron”.

(Report of the Seventeenth Session of the European Inland Fisheries Advisory Commission, 19-26 May 1992, page 43)

The other primary references for the 1 mg/l aquatic life standard involved testing with dissolved iron.

Although some studies suggest that reproduction of certain fish species may be impacted by concentrations of suspended iron as low as 1 mg/l, these sensitive fish stages generally do not coincide with high midwinter runoff events, when impacts of high turbidity may be more substantial than those of iron concentration (ref. EPA-600/3-79-042, “Effects of Suspended Solids and Sediment on Reproduction and Early Life of Warmwater Fishes: A Review”, April 1979). Hence, even if low aquatic life criteria for iron are justified, they should be adjusted on a seasonal or case-by-case basis.

The draft permit as currently constructed would allow demonstration of background levels, but would not allow such demonstration to remove a discharger from Level 2, where dischargers are subject to additional BMPs.

DWDMR suggests that one of the following actions be taken:

- 1) Change the NAL so that it applies to dissolved iron only
- 2) Change the total iron NAL to at least 3 mg/l
- 3) Require that the successful demonstration of concentrations similar to background at any time in the permit life will result in a change in NAL for that parameter at that facility, to the corresponding background level as calculated by the appropriate statistical methodology.

2 Section XII.D.2

Please reinstate the following language from the 2012 Draft Industrial General Permit:

“Once a Demonstration Technical Report is submitted, the Discharger automatically returns to Baseline Status for that pollutant for NAL/ERA purposes. If a BAT/BCT Compliance Demonstration Technical Report is submitted, the Discharger remains responsible for compliance with receiving water limitations for the discharge identified in the Demonstration. If a Non-Industrial Source Pollutant Demonstration Technical Report is submitted, the Discharger remains responsible for compliance with BAT/BCT and receiving water limitations for the discharge identified in the Demonstration. If a Natural Background Demonstration Technical Report is submitted, the Discharger is not responsible for the identified parameter(s) in the drainage area(s) in the Demonstration Technical Report.”

REASON: DWMR prefers the reinstatement of the infeasibility defense as existed in the 2012 draft permit. DWMR believes that demonstration of infeasibility should result in a return to Baseline status.

We trust that you find these comments constructive in light of the State Water Board’s stated goals of making the General Permit more uniform in its application and objective in enforcement.

Sincerely,



Mike Koza, PE
Associate Civil Engineer