



Water Quality Standards Triennial Review (Including Ammonia Criteria), December 2015

As previously reported, DEQ's Triennial Review of its surface water quality standards is underway, and we expect that it will go before the State Water Control Board (SWCB) for final action at the SWCB's January 2016 meeting. Over the past summer, DEQ held two public hearings, and VAMWA representatives testified at both. In addition, several VAMWA Members also made individual presentations and filed written comments, primarily focusing on the greatest challenge for municipal WWTPs – DEQ's proposed, more stringent freshwater ammonia criteria.

Following up on VAMWA recommendations, we understand that DEQ management is seriously considering recommending that the SWCB defer the freshwater ammonia criteria from Triennial Review because of the high projected implementation costs and to allow a more thorough consideration of implementation procedures and options. If the SWCB accepts this anticipated recommendation, freshwater ammonia (and likely other issues) would be addressed through a separate rulemaking initiated after the completion of the Triennial Review rulemaking.

The proposed ammonia criteria change would especially impact facilities without nitrification discharging to streams with minimal dilution, and small facilities with treatment technologies that are not readily upgraded for nitrification. However, we have recommended that impacts be evaluated by **all POTWs** regardless of existing treatment technology of the plant, because it appears that many others could be impacted too.

EPA's 2013 criteria, on which the Triennial Review proposal is based, are far more stringent because of the addition to the data base of freshwater mussel species and other organisms that are particularly sensitive to ammonia. They are also more highly dependent than the current criteria on temperature and pH. We have a concern that in future permit cycles, a closer focus on warm weather diurnal pH cycles, affected by algae growth, could drive permit limits considerably lower. VAMWA's written comments and corresponding Member comments focused on the ammonia criteria and the related issue of VPDES permit compliance schedules. Building on our earlier comments identifying important implementation issues that need to be addressed, VAMWA took the further step during the official comment period of requesting that DEQ and the SWCB sever the new ammonia criteria from this round of Triennial Review.

With respect to timing issues – including sought-after “regulatory stability” and a sensible phase-in of any new requirements – VAMWA also recommended a DEQ amendment to the maximum length of a compliance schedule (currently limited by DEQ in the VPDES Permit Regulation to the five-year term of a permit). This is inconsistent with the more



flexible EPA regulation, and DEQ management stated some time ago that they intended to change the state regulation to bring it into conformance with the federal approach. However, because DEQ had not yet moved forward on that change, our second principal comment was that DEQ and the SWCB should include a generic (not limited to ammonia) water quality standards-based compliance schedule provision in the WQS regulation. DEQ reports that they have not included a compliance schedule provision in their recommendations to the SWCB. We anticipate bringing this issue forward again in the follow-up freshwater ammonia rulemaking.

The Triennial Review proposal also included updated freshwater aquatic life criteria for cadmium, lead (freshwater and salt water), copper, and several human health criteria for toxic organics. The freshwater aquatic life criteria for cadmium and lead are proposed to be made somewhat more stringent, in the case of cadmium less so than EPA's relatively new criteria, and in the case of lead by a small amount (freshwater and salt water). However, in November EPA published new draft aquatic life ambient water quality criteria for both freshwater and salt water cadmium. EPA's proposed freshwater acute (CMC) criteria are generally slightly less stringent than EPA's 2001 criteria, and the proposed chronic (CCC) criteria are substantially less stringent. You will recall that it was EPA's 2001 criteria that VAMWA worked to substitute with Virginia-defined numbers derived in part from post-2001 USGS work. EPA's newly proposed criteria are less stringent than the current Triennial Review proposal. Because the November EPA draft has occurred late in the Triennial Review process, we do not know whether DEQ will continue to support the current Virginia proposal, or what action the SWCB may take. In any event, the new (draft) EPA cadmium criteria are good news for POTWs.

The copper criteria will incorporate the use of EPA's Biotic Ligand Model of toxicity, but as a permittee-option alternate to the use of the current hardness-based criteria with a site-specific Water Effects Ratio. These and other changes have been generally supported by VAMWA.

The Triennial Review rulemaking proposal also included updates to human health standards for eight toxic organics, based on the EPA water quality criteria for those organics that were effective at the time of proposal. However, on June 29 EPA finalized modified human health criteria for 94 parameters, including the eight referred to above, most of them more stringent than the current DEQ proposals. Because of this, DEQ management will recommend that the SWCB defer changes at this time to any of the human health criteria.

Earlier, DEQ decided not to propose adopting EPA's 2012 revised bacterial recreational criteria (E. coli and others) because of implementation uncertainties. However, pushing the recreational criteria effort are federal Beach Act provisions that could result in the loss of federal funds for Virginia, if the Commonwealth does not address the EPA criteria (at least as they apply to coastal recreational waters).



We understand that the current thinking of DEQ management is that, to the extent the SWCB decides in a consistent manner, they will convene in 2016 a follow-up rulemaking to address freshwater ammonia, the recreational criteria, and EPA's 94 revised human health criteria. They also intend to convene a Regulatory Advisory Panel to assist the Department in these efforts. VAMWA would of course participate in the RAP.

After SWCB approval, the Triennial Review regulatory changes go through an internal administrative process including sign-off by the Administration, and also require approval of EPA Region 3