



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

REGULATORY ADVISORY PANEL MEETING SUMMARY **Bacteria, Ammonia, Cadmium, Human Health Criteria** **May 9, 2016 10:00 – 12:00**

Welcome and Introductions

Advisory Panel Members and Alternates Present:

Alpha Natural Resources: John P. Jones

Chesapeake Bay Foundation: Joe Wood

Friends Of the Rivers of Virginia (FORVA): Patti Jackson

James River Association: Jamie Brunkow

Richmond (City of): Grace LeRose

VA Chamber of Commerce Natural Resources Committee/Smithfield Foods: Clayton Walton

US EPA: Zoe Ruge, EPA Region 3 (by conference phone)

US Fish & Wildlife Service: Serena Ciparis/VA Tech (substitute Susan Lingenfelter, USFWS)

VA Association of Municipal Wastewater Agencies (VAMWA): Jamie Heisig-Mitchell (Dick Sedgley/AquaLaw; observer)

VA Manufacturer's Association/VA Mining Issues Group: Brooks Smith

VA Dept. Conservation & Recreation: Rene Hypes

VA Dept. Game & Inland Fisheries: Ernie Aschenbach

VA Dept. Of Health: Margaret Smigo

DEQ Staff Present:

John Kennedy (Facilitator), Alex Barron, David Whitehurst, Craig Lott

John Kennedy, Office of Ecology director, began the meeting with introductions of Regulatory Advisory Panel (RAP) members and meeting attendees.

Mr. Kennedy briefly summarized the situation regarding the freshwater ammonia criteria EPA published in 2013. The nationally recommended criteria are more stringent than VA's current criteria because of inclusion of very sensitive species (mussels and snails) in the toxicity

calculations. He then outlined criteria implementation options developed in an effort to address issues raised by stakeholder comments. Major issues raised were:

- Capital and operating costs for compliance w/ permit limits based upon more stringent criteria.
- Ammonia criteria relationship to other current or future nutrient criteria; coordination of multiple program issues.
- How to bring VA's permit compliance schedule requirements in line with EPA's regulations.

Mr. Kennedy explained to the group that DEQ cannot “lobby” for state financial assistance to cost-share the expense of plant upgrades to meet more stringent ammonia effluent limits. In addition, the primary grant program available for treatment facility upgrades (Water Quality Improvement Fund) is currently available only to Chesapeake Bay facilities to assist with compliance with the Bay TMDL Watershed Implementation Plan, and eligibility is keyed to total nitrogen removal (not just nitrification of ammonia to nitrate). He also mentioned that most facilities within the Bay watershed already have nitrification/denitrification requirements and it is likely the new ammonia criteria would have negligible impacts on those facilities.

Options presented to address the other issues were:

- Phased retrofits.
- Integrate design to also cover freshwater nutrient criteria or revised Bay TMDL waste load allocations.
- Extended compliance schedules.
- Variance(s).

Permit variances were discussed and it was explained that a variance from numeric criteria may be granted to a discharger if it can be demonstrated that one or more of the conditions in 9VAC25-260-10.H are met. The most likely of those conditions would be that controls necessary to meet the criteria would cause “widespread economic and social impact”. Though variances have typically been done in other States on a case-by-case basis, some States do have them on a regional basis. One RAP member indicated a preference for the case-by-case approach. It was also mentioned that Virginia has very little experience with permit variances, that any proposed variance(s) would need to be adopted in the same fashion as a water quality standard or amendment and is subject to EPA review and approval.

Much of the following discussion was directed towards modification of VA's current regulations, either the Water Quality Standards Regulation (9VAC25-260) or the VPDES Permit Regulation (9VAC25-31) concerning schedules of compliance for discharge permit limits. Generally speaking, the regulation states compliance schedules may allow a reasonable period of time, not to exceed the term of the permit, for the discharger to attain compliance with the water quality-based limitations. VPDES permit terms are 5 years. Federal regulation language (40 CFR Chap. 1, §122.47) regarding schedules of compliance does not specify a particular time limit for compliance but states, “...as soon as possible”.

Some RAP members expressed concerns that moving from a discrete length of time to a non-specific endpoint would result in less assurance of timely implementation of permit limits to

meet the criteria. It was also mentioned that without regulation language specifically addressing ammonia criteria, that non-specific time limit would be applicable to permit limit compliance for any pollutant. Other members favor changing permit regulation language to mirror that of federal regulation and they view that course of action as neutral and in the spirit of federal regulations.

The option was discussed of amending the WQS Regulation to add language that specifically targets compliance with ammonia discharge limits to be achieved ‘as soon as possible’. It was suggested that such language should be prescriptive in setting interim milestones towards permit compliance, and factors to consider when determining compliance schedules that could be similar to ones listed in the VPDES Watershed General Permit Regulation for Nutrient Discharges in the Chesapeake Bay Watershed (9VAC25-820).

Other options for relief of the more stringent criteria were provided such as recalculation of the criteria without toxicity data for freshwater mussels (the most sensitive species in the toxicity data base) if mussels are not, and have not been, present at the discharge site. This would result in site specific criteria and the WQS Regulation would need to be amended to incorporate the criteria for each site where this condition was supported. It was also suggested that site specific permit limits for ammonia might be calculated utilizing the 50th percentile for pH instead of the 90th as is currently done. It was stated that other EPA Region 3 states have done this and EPA has found it acceptable.

Alex Barron then gave a brief presentation of EPA’s recently updated cadmium (Cd) criteria for the protection of aquatic life. Both the freshwater and saltwater criteria became more stringent.

Freshwater Criterion ug/L at hardness 100	Acute	Chronic
Virginia (1984)	3.9	1.1
EPA (2016)	1.8	0.72
Saltwater Criterion ug/L		
Virginia (1984)	40	8.8
EPA (2016)	33	7.9

Mr. Barron informed the RAP that the updated freshwater criteria incorporates more recent toxicity data for the protection of rainbow trout and the possibility exists of applying criteria that has been recalculated without the trout data to non-trout waters.

Criterion	Acute ug/L at hardness 100	Chronic ug/L at hardness 100
------------------	--------------------------------------	--

EPA (2016) ; criterion lowered to protect rainbow trout	1.8	0.72
EPA (2016) ; criterion <i>NOT</i> lowered to protect rainbow trout	2.7	0.72 (no change to chronic)

He then mentioned there may be concern expressed that trout may serve as a surrogate for sensitive species that have yet to be tested.

Staff agreed to distribute a summary of the meeting to the group prior to the next meeting and provide tentative proposed language for some portion of the issues. The RAP was also informed that all presentations, summaries, and pertinent ancillary information would be made available on the DEQ Water Quality Standards web page:

<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityStandards/RulemakingInfo.aspx>

Panel members agreed that a minimum of 2 additional meetings would be necessary.

Handouts distributed at the December meeting:

- Agenda
- Copies of slides from staff presentations
- Text of water permits regulation 9VAC25-31-250 (Schedules of compliance)
- EPA 2016 cadmium criteria update fact sheet