



McGEORGE
✓HAMMONS

October 2, 2003

VIA REGULAR MAIL

Mr. Ernest Hahn, Assistant Commissioner
Land Use Management
New Jersey Department of Environmental Protection
P.O. Box 402
401 East State Street, Floor 7W
Trenton, New Jersey 08625-0402

**Re: Thank You
Meeting on Surface Water Wildlife Criteria**

Dear Ernie:

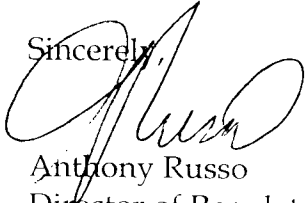
On behalf of the group that was present at the meeting on Tuesday, September 16, 2003, I want to thank you and your staff for meeting with us to discuss our concerns with the proposed wildlife criteria. We all felt the meeting was productive and worthwhile. We very much appreciate your invitation to work with the Department in addressing the difficulties in complying with the proposed criteria.

To memorialize our discussion, you requested information on what we (the group) and our respective members are currently doing to minimize the release of mercury, PCBs and DDTs into the State's waterways. Additionally, you asked for information on the Ohio variance process and other permitting options that we have come across in other States. We will be sending you this information, under separate cover, in a month or so.

Earlier this week, industry groups met with the Commissioner, as part of our on-going quarterly meetings to discuss issues affecting industry. When this topic came up, the Commissioner stated that the Department will likely re-propose the criteria to incorporate an implementation plan, pending USEPA's approval. With Natural Resource Damages (NRD) implications and the uncertainty as to how these criteria will translate into permit limitations, this news is encouraging. Now more than ever, it is important to know and understand the impact these criteria will have on the regulated community. As we highlighted at our meeting, the costs for compliance with such low standards would be astronomical with very little environmental benefit gained.

We look forward to working with the Department in developing a strategy that protects the environment and our members ability to conduct business. If you have any questions in the interim, please contact me at (609) 392-4214. Thanks again.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Russo", written over the word "Sincerely,".

Anthony Russo
Director of Regulatory Affairs
Chemistry Council of NJ

cc: SWQS Industry Coalition

**Commissioner's Briefing
Wildlife Criteria
September 11, 2003**

AGENDA

- ◆ Background – *Leslie McGeorge, WM&S*
- ◆ Criteria – *Gary Buchanan, DSRT*
- ◆ Key Issues – *Deb Hammond & Leslie McGeorge, WM&S*
 - Treatment technologies
 - Analytical methods
 - Ambient concentrations
- ◆ Options – *Ernie Hahn*
 - Allow the proposal to lapse without adopting the proposed wildlife criteria
 - Adopt wildlife criteria and explain in the Response to Comments how the Department intends on implementing the new criteria
 - Adopt the wildlife criteria and delay the effective date of the rule to allow time to propose and adopt new rules or technical guidance to implement these criteria
- ◆ Chemistry Council Meeting – September 16

TALKING POINTS

SURFACE WATER WILDLIFE CRITERIA

INDUSTRY/NJDEP MEETING

(DATE & TIME TBD-August 6, 7, or 8th) ?

- **Data and Methodology:** Discussion on data and methodology used to develop criteria (basis and background)
 - Water Quality Sampling Results/Testing....
 - Great Lakes Initiative
 - EPA Accepted Criteria Development Method
 - Delaware Estuary Technical Issues
 - Safety Factors/ Toxicology Equations

- **Protecting Waters:** Discussion on impaired waterbodies (based on current criteria) and expected impaired waterbodies (based on new criteria). What beneficial uses need to be protected? Attainability of new criteria? When does the DEP foresee attainability? How will that be measured?;

- **Applicability of Criteria:** Development of permit limitations, identification of point sources, identification of non-point sources, treatability issues and compliance issues (lab methodology);

- **Economic Impact Analysis:** Has DEP developed a risk/cost assessment on new criteria? What are the costs for compliance versus environmental benefit gained?

- **Alternatives in Achieving Water Quality/Next Steps**

Tony Russo
Chemistry Council of New Jersey
609-392-4214

Mercury Wildlife Criteria Summary

On 11/18/02, NJDEP proposed mercury, DDT & PCB wildlife criteria for inclusion in NJAC 7:9B, SWQS. The criteria have not yet been adopted as the NJDEP is still reviewing comments. Many technical and legal comments submitted on the proposal, but the concerns are more far reaching.

- US Fish & Wildlife initiated the development of the criteria pursuant to the Endangered Species Act to protect the Bald Eagle and Peregrine Falcon.
- A new mercury criteria 3 orders of magnitude lower appears unjustified – no data was presented showing the species were actually being harmed by existing levels of mercury, DDT or PCB in state waters. In fact, Department studies show Bald Eagles have increased in number.
- The proposed criteria carry a very high cost with little environmental benefit.
- Many streams are already listed as impaired for mercury; the proposed criteria would result in many more streams becoming listed unnecessarily.
- Mercury levels in New Jersey waters are primarily a result of air deposition; Measured Hg levels in rain exceed the proposed criterion.
- TMDLs for the existing Hg criteria are problematic; lower criteria will exacerbate this problem. Unachievable TMDLs will have to be developed for these water bodies.
- There is no proven technology to achieve the proposed Hg level in WWTP discharges. Costs could be extraordinary and still not result in compliance, yet the Department did not consider the potential cost impact of the proposal.
- Attempts to meet the criteria with new technology could result in more environmental harm than benefit due to the generation of more solid waste and higher energy demands for treatment (which then generates more Hg).
- Technical concerns exist with the derivation of the criteria and the reliability of measuring the parameters at parts per trillion or quadrillion levels.
- There are no comparable national wildlife criteria and none are required to be developed.

Proposed Hg criteria: 0.53 ng/L (10^{-12} g/L) – parts per trillion

Existing Hg criteria: 144 (FW2) - 146 (SE/SC) ng/L – human health based

Hg levels in NJ rain: 8-20 ng/L (NJ Mercury Task Force)

POTW Hg discharge level studies: 1-115 ng/L (out of state data)

Proposal for a Multiple Discharger Variance Process for Mercury, PCBs, and Other Pollutants

Background

The New Jersey Department of Environmental Protection (“department”) is proposing to adopt new wildlife water quality criteria for mercury, PCBs and other pollutants. The proposed new criteria would apply to all FW2 (freshwater), SC (saline coastal), and SE (saline estuary) waters. The proposed criteria for mercury and PCBs are:

- Mercury: 530 pg/L
- PCBs: 72 pg/L

The most stringent current criteria are:

Mercury:

- 144 ng/L human health noncarcinogen (30-day average) – FW2
- 146 ng/L human health noncarcinogen (30-day average) – SC, SE

PCBs:

- 170 pg/L human health carcinogen (70-year average, 1:1,000,000 risk) – FW2, SC, SE

It is anticipated that many dischargers will not be able to comply with effluent limitations derived from these proposed wildlife water quality criteria, because background levels of the pollutants in excess of the water quality criteria are present in atmospheric deposition, precipitation, and source waters. The pollutants may also be found in raw materials and consumer products. Furthermore, it is very costly to install and operate wastewater treatment technology to attempt to achieve the WQBELs. For example, Ohio determined that the average cost to remove one pound of mercury, when it is only present in wastewater in low concentrations, would be \$10 million. PCB treatment technology is even more costly, and the types of treatment are not practical for large volumes of wastewater. One discharger

Hot Issues – Week of 3/7/05

Water Monitoring and Standards

Issue: Mercury, PCB and DDT Treatment Feasibility

On November 18, 2002, the Department proposed new criteria for mercury, PCBs and DDT based on wildlife protection in an effort to resolve a Biological Opinion filed by the U.S. Fish and Wildlife Service. The Service determined that NJ's aquatic life criteria may not adequately protect bald eagles, osprey, and peregrine falcons. Few states outside the Great Lakes have adopted wildlife criteria. The Department decided not to adopt the new criteria for these bioaccumulative substances due to public comments concerning the implementation of these new more stringent criteria (e.g., proposed mercury wildlife criteria ~0.5 ng/l). EPA Region 2 successfully obtained contractor support to conduct an evaluation of the technical feasibility of wastewater treatment at NJPDES point sources to meet these very stringent criteria. A draft report prepared by Science Applications International Corporation was provided to the Department in October 2004. New Jersey's comments were provided by Region 2 to the contractor and a revised final draft was provided to the Department on January 20, 2005. A copy of the Final Draft TECHNOLOGICAL FEASIBILITY OF PROPOSED WATER QUALITY CRITERIA FOR NEW JERSEY was shared with the Department.

The Final Draft report concluded that treatment to meet the proposed criteria is not readily available and that additional testing of available end-of-pipe treatment technologies is necessary to ensure that installation of a particular technology will achieve the proposed criteria. Pollution Prevention was found to be a potentially more cost-effective strategy and could produce gains toward achieving standards without imposing the costs of unproven end-of-pipe technologies. The contractor concluded that until more sensitive analytical methods are adopted by EPA for PCBs and DDT no action should be required for these two contaminants, as we are unable to quantify whether these pollutants are present at very low levels.

The Department plans to use these findings as the basis to establish a "state-wide" variance to impose alternative water quality-based requirements for mercury, including pollutant minimization and analysis using the new approved mercury method 1631. Several of the Great Lake States (Ohio, Minnesota, Wisconsin and Indiana) have adopted or are working to adopt state-wide variances for mercury. States have not had to address a variance for PCBs due to the lack of an approved analytical method. However, in December 2003, EPA established a TMDL for PCBs in the Delaware Estuary that required the NJPDES dischargers to the Delaware Estuary to use method 1668A, although still not approved. Therefore, the Department plans to establish a "state-wide" PCB variance that would require analysis using the new proposed more sensitive method 1668A and pollutant minimization. No action is planned for DDT as no newer, more sensitive method is known to be available for this contaminant.

At this time, EPA is seeking our approval to finalize the Technological Feasibility report.

EPA plans to share the Final Report with interested parties including the US Fish and Wildlife Service, other EPA Regional Offices and permittees. It is expected that other states may use this report to support their development of “state-wide” variances for mercury and PCBs.

Contact: Debra Hammond, 7-1753 or Leslie McGeorge, 2-1623

Action Needed by the Commissioner: Approval to allow EPA to finalize and distribute the report prepared by SAIC and approval to move forward with developing “state-wide” variances for mercury and PCBs.