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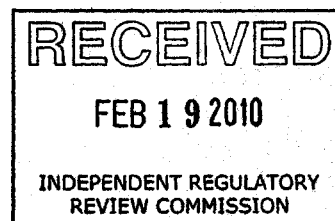
United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

February 11, 2010

Environmental Quality Board
P.O. Box 8477
Harrisburg PA 17105-8477



Dear Chairman Hanger:

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of Environmental Protection's (Department) "Proposed Rulemaking: Wastewater Treatment Requirements (25 PA. Code Ch. 95)" as announced in the November 7, 2009, *Pennsylvania Bulletin*. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species, and the Fish and Wildlife Coordination Act (48 Stat. 401, 16 U.S.C. 661 *et seq.*).

§ 95.10. Effluent standards for new discharges of wastewaters containing high Total Dissolved Solids (TDS) concentrations. § 95.10(a). We understand the Department's desire to exclude AMD treatment operations and remining projects from immediate compliance with the proposed TDS, chloride, and sulfate standards. However, the Department proposes to accomplish this by applying the new TDS effluent standards to only those discharges that came into existence after April 1, 2009. This approach would fail to capture many existing discharges that should be reduced to protect existing uses of surface waters of the Commonwealth. The Department has identified streams within the Monongahela River basin that already exceed TDS, chloride, and/or sulfate concentrations documented to be toxic to aquatic biota. In the "Benefits" section of the preamble to the proposed rule, the Department states that "the proposed rulemaking will address these high TDS discharges" [i.e., those causing significant impacts in the Monongahela River] "as well as high levels of chlorides and sulfates, resulting in cleaner streams." In fact, the "new" source limitation would prevent the Department from reducing the TDS levels in these streams to protect aquatic resources.

The Service recommends that "new" sources be required to comply with the proposed effluent standards by January 1, 2011, as proposed. Existing sources should be brought into compliance as their NPDES permits are renewed regardless of whether or not they have "additional, expanded, or increased discharge" since April 1, 2009. Exemptions can be granted for AMD treatment and remining operations based on the site-specific conditions and merits of these operations.

§ 95.10(b) The Service supports the proposed numerical effluent criteria, as instream monitoring data clearly demonstrate that they are necessary. However, the reliance upon effluent criteria fails to consider the dilution capacity of the receiving stream. At a minimum, until aquatic life criteria are adopted (see below), we propose that the Department include the following provision which mimics the Delaware River Basin Commission standard:

In-stream TDS, chloride, and sulfate concentrations will not exceed 133% of background concentrations documented to occur up gradient of the discharge.

Water quality criteria to protect aquatic life. The Department's April 11, 2009, *Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges* stated that new numeric water quality criteria for TDS and chlorides to protect aquatic life will be proposed in 2010 through an amendment to Chapter 93. The Service fully supports the Department's development of new aquatic life criteria, the implementation of which would take into consideration instream dilution capacity. We offer the following comments and recommendations for the Department's consideration as it proceeds with criteria and regulation development.

Although aquatic life criteria for TDS and chlorides will protect aquatic life from some types of discharges, they will not eliminate risks to aquatic life associated with other contaminants (including sulfates and various organic and inorganic chemicals) present in hydrofracturing wastewater (HFWW). To ensure protection of the streams of the Commonwealth, an in-stream triad approach should be used to determine if the aquatic community of the receiving stream is adversely affected relative to the upstream reference conditions and to identify the potential contaminants of concern in the HFWW. The first prong of the triad should be measuring concentrations of HFWW contaminants in surface water beyond the mixing zone. The second prong should be conducting chronic laboratory bioassays of the surface water using *Ceriodaphnia dubia*. Concentration and bioassay data should be collected quarterly when a discharge begins. The final prong of the triad should be performing an annual survey of the aquatic biota in the receiving stream following the Department's guidelines for survey times and methods. Analysis of the analytical, bioassay, and benthic survey data must include comparisons to upstream reference samples. If comparisons for three years of data demonstrate that toxic effects are not evident, then the in-stream monitoring could be discontinued as long as the HFWW parameters do not change substantially. If instream toxicity is demonstrated, then the permittee would be required to identify and eliminate the source of toxicity.

Finally, as a general matter, we consider the high TDS, chloride, metal, and/or sulfate discharges typical of brine treatment facilities to be inappropriate for waters that support freshwater mussels. Freshwater mussels are among the most endangered groups of organisms in North America. Pennsylvania stands out by continuing to have populations of several species of mussels that have been eliminated from most of the rest of the continent, and are federally-listed as endangered. Because mussels are sedentary and bottom-dwelling, they are unable to move out of an effluent plume, and would be exposed to a continuous flow of contaminants. (This is a different exposure scenario than that used in the development of aquatic life criteria, where aquatic organisms such as fish are expected to be able to move out of the effluent plume at will.)

Furthermore, should the effluent constituents settle to the bottom and accumulate in the sediments, exposure risk for the mussels would be even higher. Fish may avoid the area, thereby severing the mussel life cycle (which requires a fish host for reproduction).

Thank you for the opportunity to provide these comments. Please direct any questions to Kathleen Patnode of my staff at 304-234-0238.

Sincerely,

A handwritten signature in cursive script that reads "Patricia Cole". The signature is written in black ink and is positioned above the printed name.

Patricia Cole
Acting Supervisor

From: Cindy_Tibbott@fws.gov
Sent: Thursday, February 11, 2010 2:08 PM
To: EP, RegComments
Subject: Chapter 95 Wastewater Treatment Requirements proposed rulemaking
Attachments: USFWScommentsCh95.pdf

Attached for your consideration are our comments on the subject proposed rulemaking, published in the November 7 Pennsylvania Bulletin. A hard copy is also being sent via Federal Express.

Thank you.

(See attached file: USFWScommentsCh95.pdf)

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