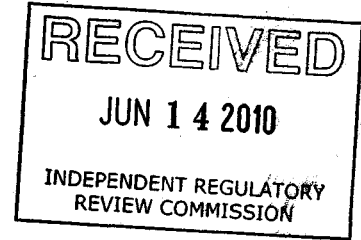


2806



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June 9, 2010

VIA U.S. MAIL and EMAIL (irrc@irrc.state.pa.us and jjewett@irrc.state.pa.us)

Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101
Attn: John H. Jewett, Regulatory Analyst

**Re: Final Amendments to 25 Pa. Code Chapter 95, Establishing Standards for
New and Expanded Discharges of High-TDS Wastewaters
IRRC No. 2806/Reg. No. 7-446**

Dear Mr. Jewett:

Citizens for Pennsylvania's Future ("PennFuture") offers these comments to the final-form amendments to 25 Pa. Code Chapter 95 (the "Final-Form Amendments"), which would (among other things) establish effluent standards for new and expanded discharges of wastewaters from natural gas drilling that contain high concentrations of total dissolved solids ("TDS"). PennFuture received notice of the Final-Form Amendments by email dated May 19, 2010.

PennFuture is a statewide, public interest, membership organization with offices in Harrisburg, Pittsburgh, Philadelphia, West Chester, and Wilkes-Barre. PennFuture's purposes include advocating and litigating state-wide on behalf of the environment and public health, including water quality issues and issues arising out of coal mining and gas drilling activities. PennFuture's membership includes residents of Pennsylvania who use the Commonwealth's rivers and streams for fishing, boating, and other forms of recreation, as well as Pennsylvanians who rely on the Commonwealth's rivers and streams as sources of drinking and household water.

The Independent Regulatory Review Commission (the "IRRC") should determine that the Final-Form Amendments are in the public interest and approve them. The Environmental Quality Board (the "EQB") is correct in its determinations that Pennsylvania's existing regulatory scheme does not adequately protect the Commonwealth's streams and rivers against discharges of wastewaters containing high concentrations of total dissolved solids ("TDS"), and that such discharges threaten the uses of those streams and rivers for industry, drinking water,

recreation, and aquatic life.¹ Accordingly, PennFuture supports the EQB's proposal to amend 25 Pa. Code Chapter 95 to establish effluent standards for new and expanded discharges of wastewaters from natural gas drilling operations, so that such discharges will not contain more than 500 mg/L of TDS,² 250 mg/L of chlorides,³ 10 mg/L of barium,⁴ or 10 mg/L of strontium.⁵ PennFuture also supports the EQB's proposal to amend Chapter 95 to confirm explicitly that discharges of untreated gas drilling wastewater directly into streams are prohibited,⁶ and that discharges of treated gas drilling wastewater are authorized only from centralized waste treatment facilities ("CWTs") and authorized publicly-owned treatment works ("POTWs").⁷ The Final-Form Amendments strike a reasonable and appropriate balance between the need to protect the waters of the Commonwealth from TDS pollution and the costs that such protections will impose on the natural gas drilling industry. Further, PennFuture supports the EQB's commonsense proposal to require the natural gas well operators to minimize the adverse environmental impact of wastewaters having high concentrations of TDS that they generate by requiring them to develop plans to reuse or recycle their wastewaters when feasible.⁸

TDS is a measure of all elements that are dissolved in water. Some level of TDS occurs naturally in all water. Agricultural, industrial, and mining activities that result in discharges to streams or rivers, as well as stormwater runoff, all contribute additional TDS to receiving waters. When TDS levels in a river or stream exceed water quality standards, water from that stream becomes unsuitable for many forms of aquatic life and cannot be used for drinking water and certain industrial processes without first being treated to remove TDS.

A number of rivers and streams now exceed water quality standards for TDS on a regular basis. In late 2008, high TDS levels in the waters of the Monongahela River south of Pittsburgh threatened to shut down industries that are dependent on the river's fresh water for their operations, and affected the taste and smell of the drinking water supplied to approximately 330,000 people in the southwestern part of the state.⁹ The river was already burdened with high-TDS levels due to discharges from coal mines and industries, and became over-burdened during low-flow conditions when extremely high-TDS wastewater produced by gas drilling operations was processed (but not treated to remove TDS) and discharged by nine or more POTWs in the

¹ See DEPARTMENT OF ENVTL. PROT., ENVIRONMENTAL QUALITY BD., *Notice of Final Rulemaking, Wastewater Treatment Requirements, 25 Pa. Code Chapter 95* (May 17, 2010), at 3-6.

² Proposed 25 Pa. Code § 95.10(b)(3)(iii).

³ Proposed 25 Pa. Code § 95.10(b)(3)(iv).

⁴ Proposed 25 Pa. Code § 95.10(b)(3)(v).

⁵ Proposed 25 Pa. Code § 95.10(b)(3)(vi).

⁶ Proposed 25 Pa. Code § 95.10(b)(1).

⁷ Proposed 25 Pa. Code § 95.10(b)(3)(i) and (ii).

⁸ Proposed 25 Pa. Code § 95.10(b)(2).

⁹ Don Hopey, *Mon River Solids are a Threat to Machinery, but not Health*, PITTSBURGH POST-GAZETTE (Nov. 17, 2008), available at <http://www.post-gazette.com/pg/08322/928571-113.stm>.

Monongahela River watershed.¹⁰ TDS levels in the Monongahela River also exceeded water quality standards in April, July, August, September, and October 2009.¹¹ Additionally, in August and September 2009, the discharge of high-TDS wastewater from coal mines into Dunkard Creek created conditions that virtually wiped out that stream's mussel population and caused a massive kill of fish and salamanders extending from West Virginia into Pennsylvania.¹²

The development of the natural gas-bearing shales in Pennsylvania, including the Marcellus Shale, threatens to exacerbate such problems. To obtain natural gas from shale, gas well operators must create fractures in the shale, using millions of gallons of water pumped at high pressure, so that the shale releases the gas it holds. When that water returns to the wellhead, it usually contains high concentrations of TDS as a result of substances (primarily chlorides) contained in the shale that dissolve into the water during fracturing.¹³ Because of the sheer number of wells that are being drilled and fractured, a "tremendous" volume of wastewater with a high concentration of TDS is expected to be generated on a daily basis in Pennsylvania over the next twenty to thirty years.¹⁴

Accordingly, the lack of effluent limitations for TDS from gas drilling activities threatens the Commonwealth's natural resources, as well as the public health and welfare,¹⁵ including specifically the substantial direct and indirect benefits that Pennsylvania's rivers and streams provide to individuals, farms, and industries. The Final-Form Amendments will not only help prevent water pollution, but will ensure that the costs associated with preventing water pollution resulting from natural gas drilling activities will be borne those who generate pollutants, rather than by the Commonwealth, its political subdivisions, and the businesses and individuals who depend on clean water from rivers and streams for industrial, drinking water, or recreational uses.¹⁶ Obviously, keeping Pennsylvania's rivers and streams free of TDS pollution also protects

¹⁰ Don Hopey, *DEP Seeks Cause of River Pollution*, PITTSBURGH POST-GAZETTE (Oct. 22, 2008), available at <http://www.post-gazette.com/pg/08296/922096-100.stm?cmpid=news.xml>

¹¹ DEPARTMENT OF ENVTL. PROT., BUREAU OF WATER STANDARDS AND FACILITY REGULATION, *Controlling National Pollution Discharge Elimination System (NPDES) Permitting in the Monongahela River Watershed*, Document No. 362-2100-001 (Draft May 1, 2010), at 1, available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-79820/362-2100-001.pdf>.

¹² Don Hopey, *Sudden Death of Ecosystem Ravages Long Creek*, PITTSBURGH POST-GAZETTE (Sept. 20, 2009), available at <http://www.post-gazette.com/pg/09263/999458-113.stm>.

¹³ DANIEL J. SOEDER AND WALTER M. KAPPEL, UNITED STATES GEOLOGIC SURVEY, *Water Resources and Natural Gas Production From the Marcellus Shale*, Fact Sheet 2009-3032, at 5, available at <http://pubs.usgs.gov/fs/2009/3032/pdf/FS2009-3032.pdf>.

¹⁴ *Notice of Final Rulemaking*, *supra* note 1, at 10.

¹⁵ See 71 P.S. § 745.5(b)(2) (in determining whether a proposed regulation is in the public interest, IRRC is to consider the "protection of the public health, safety, and welfare and the effect on the Commonwealth's natural resources").

¹⁶ See 71 P.S. § 745.5b(b)(1)(i) (in determining whether a proposed regulation is in the public interest, IRRC is to consider the economic impacts of the regulation, including its direct and indirect costs to the public and private sectors).

the Commonwealth's natural resources, including the aquatic life that inhabits those rivers and streams.

PennFuture does not agree with all of the details of the Final-Form Amendments, and in particular with several of the limitations or exemptions the EQB included in its final order over our objections.¹⁷ PennFuture also would have preferred that the EQB apply across the board to all industries the effluent limitations imposed on the natural gas drilling industry in the Final-Form Amendments.¹⁸ Finally, PennFuture had hoped that the regulations would include (as originally proposed) an effluent limitation for sulfates, which PADEP itself has identified as a principal "pollutant of concern" contributing to the impairment of water quality in the Monongahela River and its important tributaries in Pennsylvania,¹⁹ as well as other streams in the Commonwealth that are impacted by discharges from active and abandoned coal mines.

Notwithstanding those concerns, however, PennFuture strongly supports the EQB's adoption of the new wastewater treatment requirements. The effluent limitations that the Final-Form Amendments would impose upon the natural gas drilling industry are necessary to protect the uses of streams and rivers across the Commonwealth for industry, as sources of drinking water, and for recreation, fishing, and boating. The Final-Form Amendments will help protect the public health and welfare and will reasonably impose the costs of preventing water pollution from natural gas drilling activities on those who generate such pollution, rather than on the Commonwealth, its political subdivisions, or the general public. Accordingly, PennFuture urges the IRRC to determine that the Final-Form Amendments are in the public interest and approve them.

Very truly yours,



John K. Baillie
Senior Attorney

cc: Environmental Quality Board
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¹⁷ See Proposed 25 Pa. Code § 95.10(a)(1)-(6).

¹⁸ See Proposed 25 Pa. Code § 95.10(c) (applying a 2000 mg/L effluent limitation for new and expanding sources of TDS outside the natural gas drilling industry).

¹⁹ See, e.g., *Coordinating National Pollution Discharge Elimination System (NPDES) Permitting in the Monongahela River Watershed*, *supra* note 11, at 1; Pamela J. Milavec, PENNSYLVANIA DEPT. OF ENVTL. PROT., BUREAU OF ABANDONED MINE RECLAMATION, *Aquatic Survey of Lower Dunkard Creek* (Feb. 5, 2009), at 2-4, available at http://files.dep.state.pa.us/Water/Wastewater%20Management/WastewaterPortalFiles/MarcellusShaleWastewaterPartnership/dunkard_creek.pdf.

Independent Regulatory Review Commission

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