

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

SIERRA CLUB and)	
PRAIRIE RIVERS NETWORK,)	
)	
Petitioners,)	
)	
v.)	PCB 22
)	APPEAL FROM IEPA
ILLINOIS ENVIRONMENTAL PROTECTION)	DECISION GRANTING
AGENCY and WILLIAMSON ENERGY LLC,)	NPDES PERMIT
)	
Respondents.)	

**PETITION FOR REVIEW OF AN NPDES PERMIT DECISION
BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

Pursuant to 415 ILCS 5/40(e)(1) and 35 Ill. Adm. Code Section 105, the Sierra Club and Prairie Rivers Network (collectively “Petitioners”) hereby petition for review of the April 15, 2022 decision of the Illinois Environmental Protection Agency (“IEPA”) to grant the reissued National Pollutant Discharge Elimination System (“NPDES”) permit (Permit No. IL0077666, Ex. A, hereinafter, the “Permit”) to Williamson Energy LLC (the “Permittee”). The Permit allows the Permittee to discharge numerous pollutants in large volumes into the Big Muddy River and tributaries to Pond Creek, a tributary of the Big Muddy River, from its coal mine located in Williamson and Franklin Counties. In support of their petition, Petitioners state:

Petitioners

1. The Sierra Club is a California not-for-profit corporation, which has among its purposes to protect and restore the quality of the natural and human environments. The Sierra Club has approximately 29,000 members residing in the State of Illinois. Many of these members reside near the Big Muddy River and Pond Creek, as well as downstream waters. They are adversely impacted by pollution in the Big Muddy River and Pond Creek and any degradation of water quality that could affect the uses of those waters. Many Sierra Club members are

concerned with pollution that would affect their ability to enjoy their properties and recreational activities dependent on the ecological health of the Big Muddy River including fishing, boating, canoeing, nature study and hiking. Sierra Club members monitor water quality in the Big Muddy and are adversely affected by pollution and offensive conditions that occur as the result of discharges to the Big Muddy River including discharges of toxic levels of chloride and other pollutants that cause resuspension of pollutants in the Big Muddy River such as mercury and phosphorus.

2. Prairie Rivers Network (“PRN”) is an Illinois not-for-profit corporation concerned with river conservation and water quality issues in Illinois. The organization has approximately 1,350 members, and works with concerned citizens throughout the state to address issues that impact Illinois streams. Prairie Rivers Network members live in the Big Muddy watershed and are concerned with pollution that would affect their ability to enjoy recreation activities dependent on the ecological health of the Big Muddy River including fishing, boating, canoeing, nature study and hiking. Members of Prairie Rivers Network are adversely affected by pollution and offensive conditions that occur as the result of discharges to the Big Muddy River including discharges of toxic levels of chloride and other pollutants that cause resuspension of pollutants in the Big Muddy River such as mercury and phosphorus.

3. Members of the Petitioners, including Lucia Amorelli, Cameron Smith, Connie Schmidt, Jane Cogie, Jean Sellar, Amanda Pankau, Jan Thomas, Sabrina Hardenbergh, Barbara McKasson, Tabitha Tripp, Dr. Cynthia Skrukud, Andrew Rehn, and Albert Ettinger appeared at the hearing held in the IEPA proceeding on December 18, 2019, or submitted comments in opposition to the Permit. (Transcript of Hearing Ex. B, IEPA Responsiveness Summary Ex. C, and the written comments of Sierra Club and PRN Ex. D and Ex. E) They and other members of

Petitioners are so situated as to be affected by the Permit and by offensive conditions and other violations of water quality standards in the Big Muddy River and Pond Creek.

Statement of Issues Raised

4. On July 12, 2019, IEPA gave notice that it had made a tentative decision to issue NPDES permits to Permittee to discharge into the Big Muddy River and Pond Creek. After reviewing a copy of the draft Permit, Petitioners on August 12, 2019 filed their initial comment and request for a public hearing (Ex. D). Petitioners further commented through testimony given at a public hearing held on the draft Permit in Marion, Illinois on December 18, 2019. (See Transcript Ex. B). Petitioners commented again on the Permit with post-hearing written comments filed on January 17, 2020, which were supported by the expert testimony of Matthew Baker, PhD and Professor JoAnn Burkholder (See Exhibit E¹), as well as numerous other exhibits.

5. In those comments and testimony, Petitioners raised legal and scientific issues regarding flaws in the draft Permit and in IEPA's consideration of the draft Permit including that the Permit did not comply with Illinois' antidegradation rules, 35 Ill. Adm. Code 302.105, and that it would allow discharges that may cause or contribute to violations of Illinois water quality standards regarding protection of existing uses, offensive conditions, dissolved oxygen, mercury, nickel and copper. Petitioners further pointed out that the monitoring requirements in the Permit were inadequate in numerous respects particularly in view of the long list of permit violations committed by the Permittee.

¹ Attached to the original Post-Hearing Comment Letter (Ex. E) were 22 exhibits, many of which are voluminous. To avoid duplication with the record, we have included with Ex. E here only copies of the first two attachments, the referenced expert testimony.

6. In particular, Petitioners commented based on the documents then available, that the draft Permit could not be legally granted under 35 Ill. Adm. Code 302.102, 302.105, 304.105, 309.141(a) and (d), 309.143(a) and 309.146 because the draft Permit as written did not ensure compliance with Illinois water standards or permitting rules. Petitioners stated *inter alia* that the Permit as drafted would violate at least the following applicable regulations:

- **35 Ill. Adm. Code 302.105(a)** (Tier 1 antidegradation) by allowing increased discharges of chloride, sulfate, total suspended solids, copper, iron, nickel, selenium and other pollutants and flow changes that would adversely affect existing uses of the Big Muddy River and Pond Creek and other creeks in the area. (Ex. E pp.3-7) In particular, Petitioners stated that chronic chloride toxicity, as well as the combined effects of all the different kinds of increased pollution allowed by the Permit would impact existing uses. Petitioners also commented that the Permit would damage creeks as a result of reduced stream flow caused by groundwater moving downward to fill areas vacated by groundwater filling the mine. Still further, Petitioners commented that the lack of pre-discharge baseline data would make it impossible to determine the extent of the damage done by the permitted discharges.
- **35 Ill. Adm. Code 304.105, and 309.141(d) and 309.143** by increasing the levels of methyl mercury and phosphorus, decreasing DO levels, and causing violations of narrative standards in the Big Muddy. In particular, Petitioners commented that permitted discharges would trigger chemical and biological processes acting on sediments in the Big Muddy, resulting in an increase in methyl mercury, phosphorus and cyanobacteria, as well as a decrease in dissolved oxygen (DO) in the water column.

- **35 Ill. Adm. Code 302.105(c)** (Tier 2 antidegradation) by allowing new discharges to the Big Muddy River and Pond Creek unnecessary to accommodate important social or economic development. Petitioners commented that the new discharges allowed by the draft Permit would harm social and economic development in the community at large by further wedding the local economy to an industry without a long-term future, and a company (then in bankruptcy) likely to leave the community with a large environmental hazard. Petitioners also pointed out that neighbors of the mine would continue to be harmed by the mining operations. Further, Petitioners demonstrated that the mining of coal, to be burned in China or elsewhere, would harm the local economy (and the world economy) by increasing the emission of greenhouse gases.
- **35 Ill. Adm. Code 302.105(a), 35 Ill. Adm. Code 304.105, and 309.141(d), 309.143, and 309.146** by allowing a mixing zone that would in fact result in violations of applicable water quality standards outside the mixing zone and by allowing increased discharges subject only to implementation of a complex dilution and monitoring formula. Petitioners pointed out that these violations would be exacerbated by the fact that the Permittee has proven itself incapable of complying with the limits and reporting requirements of its current relatively simple permit.
- **35 Ill. Adm. Code 302.102(a), 302.105(a), 35 Ill. Adm. Code 304.105, and 309.141(d) and 309.143** by failing to protect mussels.
- **35 Ill. Adm. Code 309.146** by failing to require monitoring adequate to determine compliance with the complex dilution scheme contemplated by the Permit.
- **35 Ill. Adm. Code 302.102, 302.105(a), 35 Ill. Adm. Code 304.105, and 309.141(d) and 309.143** because the reasonable potential test on which the draft Permit relied was

not properly performed at least with regard to mercury, copper, iron, nickel, and selenium. Further, the draft Permit failed to properly consider the combined effects of these pollutants and others. (Ex. E pp. 3,7)

- **35 Ill. Adm. Code 302.102, 302.105(a), 35 Ill. Adm. Code 304.105, and 309.141(d) and 309.143** because the testing done for mercury was not done with sufficient sensitivity to determine whether there was a reasonable potential for permitted discharges to cause or contribute to violations of the applicable 12 ng/L water quality standard (35 Ill. Adm. Code 302.208(f)).

7. Further regarding antidegradation, 35 Ill. Adm. Code 302.105, Petitioners pointed out in their comments that, assuming *arguendo* that the increased pollution is necessary to keep the mine open, that would not benefit the “community at large” (see 35 Ill. Adm. 302.105(c)) because the community at large is injured by climate change caused by the burning of the coal being mined, mine subsidence, increased flooding, damage to local creeks and other environment damage allowed by the Permit as well as the water pollution that is directly being permitted. Petitioners further pointed out that the employment benefits stated in the record might not occur given the financial situation of the Permittee. (Ex. E pp.12-4)

**Violations of Law and Regulations in the Permit
and in IEPA’s Consideration of the Permit**

8. On April 15, 2022, Illinois EPA issued the Permit that is subject to the current appeal. IEPA states in the Responsiveness Summary that it did improve the testing done for the reasonable potential test, placed some limits in the Permit as a result of this improved testing, and put certain new limits in the Permit. (Ex. C pp.3-5) Also, in the final Permit IEPA recognized that it could not allow a mixing zone in Pond Creek. However, the final Permit did

not remedy the major flaws discussed above that were raised by Petitioners in oral comments at the hearing and written comments made after the hearing.

9. Illinois EPA has the authority and the obligation to regulate all increased discharges of pollutants as necessary to prevent violation of Illinois water quality standards regarding existing uses and unjustified degradation (35 Ill. Adm. Code 302.105), offensive conditions (35 Ill. Adm. Code 302.203) and dissolved oxygen (35 Ill. Adm. Code 302.206), as well as to prevent violations of the numeric standards.

10. IEPA, however, did not set numeric limits in the Permit necessary to prevent discharges to the Big Muddy River (Outfall 011) that might cause or contribute to violations of these water quality standards for at least iron (dissolved), sulfate, chloride, nickel (dissolved), or copper (dissolved) (See Permit Ex. A. p.10, 24). Instead, to the extent the Permit sets limits for these pollutants at all, it sets only complex and unenforceable formulas. The degrading effect on existing uses of the alteration of stream flows in the vicinity of the mine was apparently ignored.

11. Despite the requirements of 35 Ill. Adm. Code 302.105 to prevent violation of Illinois water quality standards, as well as applicable federal regulations which explicitly require that NPDES permits include restrictions “necessary to achieve water quality standards ... including State narrative criteria” (40 CFR 122.44(d)(1)), Illinois EPA declined to even consider placing a limit on chloride releases from the mine necessary to fully protect existing uses the Big Muddy from chronic chloride toxicity. Instead, the Permit allows chloride levels up to 5000 mg/L within the mixing zone and up to 500 mg/L outside of the mixing zone, even though the federal criteria for chronic chloride toxicity is 230 mg/L and available science that was placed into the record by Petitioners demonstrates that chloride levels should be held well below 230 mg/L to protect existing uses. (Ex. E pp. 5-6)

12. IEPA apparently did not consider that discharges of chloride and other pollutants would promote increased toxic cyano-bacteria levels by creating a water quality regime more favorable for such organisms despite expert testimony stating that this effect was likely. (Ex. E p.2, Buckholder Comments pp. 3-4)

13. Further, it appears from the final Permit that the method for monitoring chloride and other pollutants and other key permit provisions have not even been determined as of the date of the issuance of the Permit, in violation of rights of public participation. It does not appear the calibration curves necessary to monitor chloride levels have been developed. (See, Ex. A p.24) The Permit provides that the Permittee and the agency intend in the future to develop key portions of the Permit regarding chloride and other pollutants without allowing public participation or review by the Board. (See Ex. A Special Condition No. 15)

14. Permit conditions that purport to protect the Big Muddy do not include enforceable numeric limits on pollutants that may cause or contribute to a violation of water quality standards for chloride, sulfate, iron, copper and nickel but only a narrative requirement that the permittee not cause a violation of water quality standards. (Ex. A pp. 10, 24 Special Condition 15). The monitoring requirements in the Permit are also defective and in violation of 35 Ill. Adm. Code 309.146 for these pollutants but the full extent of the errors in the Permit monitoring requirements cannot be known without the full administrative record containing the reasonable potential test calculations and other data.

15. The Permit appears to authorize continuing *acutely* toxic conditions in the Big Muddy River in violation of 35 Ill. Adm. Code 304.105, 309.141 and 309.143, even outside the mixing zone, as it allows discharges to cause levels of pollution in excess of acute criteria measured “within 10 feet downstream” of the mixing zone as long as these discharges do not

exceed 40% (for chloride, sulfate and iron) In addition, it appears to allow chronic toxicity in the Big Muddy and/or the tributary to Pond Creek for chloride, sulfate, iron, copper, nickel and zinc. See Ex. A pp. 2-11, 25, Special Condition No. 16.

16. Portions of the Permit appear to be senseless and may be the result of drafting errors. Special Condition No. 16 subparts d and e provide that “If the water quality standard, based on a hardness of 91 mg/L ... exceeds ...”, while also stating that these amounts would be 40% and 20% over the WQS. Clearly, the water quality standard cannot exceed the water quality standard.² These provisions must be revised to make sense, provide enforceable limits, and properly reflect the regulatory requirements.

17. In establishing monitoring requirements, IEPA appears to have failed to take into account the Permittee’s long history of permit violations, including violations that have occurred during the pendency of IEPA’s consideration of the Permit at issue. See Ex. C p. 50.

18. IEPA did not properly consider alternatives for addressing chloride discharges. It is unclear what economic analysis IEPA performed in rejecting alternatives other than to reject those alternatives that the Permittee or its consultants thought were too expensive. It is notable that the selected alternative provides for reverse osmosis reject water, thought to be too toxic to be stored or treated in some situations (Ex. C p. 54), to be dumped into the Big Muddy. (Ex. C p. 3).

19. IEPA apparently completely ignored the negative effects of the Permit on the “community at large,” stating essentially that such problems were not its problem, despite the requirements of 35 Ill. Adm. Code 105(c)(2)(B)(iv) which explicitly requires that effects on the

² Perhaps the drafters intended Special Condition No. 16 subparts d and e to provide that “If the measured concentration...”

“community at large” be considered. For example, IEPA utterly failed to consider that the coal produced from the Mine will contribute to disastrous climate change. In addition, IEPA apparently failed to consider the impact the alteration of stream flows, land subsidence, coal dust, noise, and loss of property values will have on the community at large although these potential impacts were explicitly brought to the agency’s attention. (Ex. E p.13)

20. IEPA also apparently ignored the fact that the employment benefits claimed by the Permittee may be very temporary in light of its apparent financial weakness, as the Permittee only recently emerged from bankruptcy.

21. Many of the statements made in the Responsiveness Summary appear to be without any basis in science. For example, it is claimed, without citation of evidence, that pollutants from the mine will not come into contact with sediments despite studies submitted into the record showing resuspension of phosphorus and creation of toxic mercury through contact of water column pollution with sediments. Whether there is any support in the record for the agency’s reasoning cannot be fully analyzed until the agency record is produced.

22. Other serious flaws in the testing or the limits in the revised Permit may be disclosed by the full agency record when that is produced.

23. Members of Petitioners will be affected adversely when pollution discharged under the Permit causes or contributes to the creation of toxic conditions, cyano-bacteria, low oxygen, toxic mercury and offensive conditions in the Big Muddy, Pond Creek and downstream waters. Further, members of Petitioners will be adversely affected when such pollution otherwise injures stream flows and the ecology of the Big Muddy, its tributaries and downstream waters as a result of Illinois EPA’s failure to protect existing conditions, require protective effluent limits, establish proper monitoring, and perform a proper antidegradation analysis. In addition,

Petitioners' public participation rights and rights to enforce the Clean Water Act have been and will continue to be injured by the failure of the agency to develop permit limits in public and to otherwise establish enforceable permit limits.

WHEREFORE, Sierra Club and Prairie Rivers Network ask that the Pollution Control Board set aside the NPDES permit (No IL0077666) issued to Williamson Energy LLC on April 15, 2022 as not sufficiently protective of the environment and not in accord with law, and direct that the Agency reconsider the Permit in order to establish conditions and limits necessary to protect Illinois waters, assure protection of Illinois water quality standards, and comply with the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq., and Illinois law.



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May 10, 2022

CERTIFICATE OF SERVICE

I, the undersigned, certify that I have served on the date of May 10, 2022 the attached Petition for Review of an NPDES Permit Decision by the Illinois Environmental Protection Agency upon the following persons by depositing the document in a U.S. Postal Service mailbox by the time of 5:00 pm, with proper postage or delivery charges prepaid:

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