



October 29, 2019

Via Electronic Mail

John Holden, P.E., Clean Water Program Manager
Justin C. Dickey, P.E., Environmental Engineer Manager
Pennsylvania Department of Environmental Protection
Northwest Regional Office
230 Chestnut Street, Meadville, PA 16335-3481
johholden@pa.gov
judickey@pa.gov

Re: Public Comments Regarding Draft Permit PA0005053 for the Warren
Generating Station in Warren County, Pennsylvania

Dear Mr. Holden and Mr. Dickey:

The Environmental Integrity Project (“EIP”) submits these comments on behalf of itself, Citizens Coal Council, the Center for Biological Diversity, and local residents (together, “Commenters”) to provide several objections to the Pennsylvania Department of Environmental Protection’s (“PADEP”) Draft National Pollutant Discharge Elimination System (“NPDES”) Permit No. PA0005053 for GenOn REMA, LLC’s Warren Generating Station. On October 11, 2019, PADEP granted Commenters’ request for an extension of the public comment period for this Draft Permit until October 29, 2019, so these comments are timely.

Commenters’ objections to this Draft Permit include the following:

- DEP must impose limits on arsenic and mercury from the discharges of combustion residual leachate from Outfall 002;
- DEP must require at least monthly monitoring of mercury, thallium, manganese, and all other pollutants that were candidates for water quality monitoring from the combustion residual leachate discharges from Outfall 002; and
- DEP must impose limits on nickel and chloride in order to protect threatened and endangered mussel species, consistent with the U.S. Fish and Wildlife Service’s comments.

I. Background

The Warren Generating Station's two coal combustion units have been deactivated, yet its coal-burning legacy continues as the former coal ash disposal area at the site continues to discharge toxic pollutants into the Allegheny River. Although the coal ash surface impoundments at the plant have been "closed"¹ they still contain coal ash, and toxics-laden leachate from the disposal area discharges to the Allegheny River with the main "treatment" for the leachate being sedimentation, or allowing pollutants to "settle" prior to discharge.²

The Allegheny River is listed as impaired due to high levels of mercury and pathogens.³ In addition, DEP's 2019 Fact Sheet states plainly that the "Allegheny River is known to contain state and federally listed threatened and endangered mussel species," and that Outfall 002, which discharges combustion residual leachate, is "a direct discharge to the Allegheny River."⁴

The Allegheny River is a traditional cultural property of the generations of the Seneca Nation, and of citizens of the Commonwealth who rely on the river for fishing and recreational uses. In fact, this river is a federally designated National Wild and Scenic River at a point that begins two miles downriver. In addition, Commenters have observed that there is a bald eagle nest directly across the river from the facility, on the back side of Mead Island.

DEP proposes to renew the NPDES permit and to allow GenOn REMA, LLC to discharge "treated ash disposal site leachate" from the closed ash disposal area into the Allegheny River without limits on the majority of coal ash indicator pollutants. The Draft Permit would only impose limits on pH, total suspended solids, oil and grease, and iron, and, aside from these, would only even require monitoring for flow and two pollutants, nickel and chloride, which would only be required to be monitored quarterly.⁵ DEP does not even require any monitoring at all of most common coal ash pollutants. Most egregiously, DEP does not even require any monitoring of mercury, despite the fact that the Allegheny River is impaired for mercury and despite the fact that a recent federal court held that allowing "treatment" of leachate in surface impoundments was not stringent enough and argued that there are available, demonstrated technologies available that would support limits on mercury (and arsenic).

¹ See, e.g., GenOn REMA LLC (formerly NRG REMA LLC), Renewal Application for NPDES Permit No. PA0005053 for the Warren Generating Station, at Fig. 2, "Warren Station Drainage Areas" (Sept. 2016), available at <http://files.dep.state.pa.us/RegionalResources/NWRO/NWROPortalFiles/WarrenGeneratingStation/Warren%20Generating%20Station%20PA0005053%20RENEWAL%20APPLICATION%209-29-2016.pdf> (last accessed Oct. 29, 2019)

² See *id.* at 6 (stating that treatment for the Outfall 002 discharge of leachate involves, chronologically, neutralization, mixing, flocculation, sedimentation (settling), and then discharge).

³ See DEP, NPDES Permit Fact Sheet Individual Industrial Waste (IW) and IW Stormwater for the Warren Generating Station, NPDES Permit No. PA0005053, at 4 (Aug. 26, 2019) [hereinafter 2019 Fact Sheet].

⁴ 2019 Fact Sheet, at 10.

⁵ DEP, Draft Permit PA0005053 for GenOn REMA LLC's Warren Generating Station (2019 Draft), available at http://files.dep.state.pa.us/Water/Wastewater%20Management/EDMRPortalFiles/Permits/PA0005053.3.Final.8-10-2011_11188_v1.pdf.

II. DEP Must Limit Arsenic and Mercury and Add Additional Monitoring Requirements for Discharges of Leachate through Outfall 002.

a. DEP must limit arsenic and mercury from Outfall 002.

DEP must impose stringent limits on discharges of toxic coal ash pollutants from the coal ash leachate disposal site, and these limits must, at a minimum include limits on arsenic and mercury consistent the federal effluent limitations guidelines for new combustion residual leachate discharges. DEP correctly asserted that the federal Effluent Limitations Guidelines (“ELGs”) for combustion residual leachate discharges should apply to the Outfall 002 discharge. However, because a federal court recently struck down the new ELGs for existing combustion residual leachate discharges as not stringent enough under the federal Clean Water Act, and because that same federal court reasoned that there were better available technologies for controlling leachate discharges, namely chemical precipitation, DEP should apply the limits for arsenic and mercury established in the federal ELGs for new leachate discharge sources, which were based upon chemical precipitation.

The Clean Water Act (“CWA” or “the Act”)⁶ established a national goal of eliminating all discharges of pollution into navigable waters.⁷ The Act prohibits the discharge of any pollutant into waters of the United States by any person except in compliance with certain other enumerated sections of the Act, and created the national pollutant discharge elimination system (“NPDES”), under which EPA or authorities delegated by EPA may issue NPDES permits for point source discharges to waters of the United States.⁸ The Commonwealth of Pennsylvania through DEP was delegated the authority to issue NPDES permits on June 30, 1978 and has been implementing the federal permitting program since that date.⁹ Similarly, Pennsylvania’s Clean Streams Law (“CSL”) prohibits the discharge of any “industrial waste” or “pollution” into waters of the Commonwealth, unless such discharge is in compliance with both the terms and conditions of a permit issued by the Commonwealth pursuant to the CSL and with the rules, regulations, and orders of the Commonwealth.¹⁰

⁶ 33 U.S.C. §§ 1251 *et seq.* (“CWA”).

⁷ *Id.* § 1251(a).

⁸ *Id.* §§ 1311(a), 1342.

⁹ See 67 Fed. Reg. 55,841-01, 55,842. The Commonwealth issues permits, including GenOn REMA LLC’s NPDES Permit, pursuant to this authority under the Clean Water Act and the Clean Streams Law. See, e.g., 25 Pa. Code § 963.1 (2018) (defining a Part I Permit as an NPDES permit “issued by the Department under section 5 of the Clean Streams Law (35 Pa. Cons. Stat. § 691.5) and section 402 of the Clean Water Act (33 U.S.C. § 1342); 33 U.S.C. § 1342(i)).

¹⁰ See 35 Pa. Cons. Stat. §§ 691.1, 691.301, 691.401 (note that “Industrial waste” means “any liquid, gaseous, radioactive, solid or other substance, not sewage, resulting from any manufacturing or industry, or from any establishment, as herein defined, and mine drainage, refuse, silt, coal mine solids, rock, debris, dirt and clay from coal mines, coal collieries, breakers or other coal processing operations, including all such substances whether or not generally characterized as waste”; and “Pollution” means “contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The department shall determine when a discharge constitutes pollution, as herein

Under the CWA, agencies with the authority to issue NPDES permits must establish limits on discharges in those permits that “restore” and “maintain” the quality of the receiving water body.¹¹ To do this, permit writers must consider both technology-based effluent limitations (“TBELs”) and water-quality-based effluent limitations (“WQBELs”). TBELs, which are based on the feasibility of treatment technologies, are the minimum level of protection required by the CWA.¹² In fact, EPA stated in a 2010 memorandum that TBELs “constitute a minimum floor or controls that must be included in a permit, irrespective of the discharger’s effect on the quality of the receiving water.”¹³ At a minimum, DEP must set TBELs that reflect the ability of available technologies to reduce or eliminate pollution discharges.¹⁴ EPA is required to promulgate effluent limits and guidelines (collectively, ELGs) to control discharges of pollutants into the waters of the United States from industrial point sources and to help implement the Clean Water Act’s TBEL requirements.¹⁵

When setting TBELs, states look to federal ELGs first.¹⁶ However, where EPA has not promulgated ELGs for a particular category of discharger, or where the existing ELGs do not adequately address all waste streams or pollutants discharged by a facility, states must use their best professional judgment (“BPJ”) and set TBELs for each pollutant.¹⁷ When setting TBELs on a case-by-case basis, states must consider the same factors EPA must consider when promulgating ELGs.¹⁸ As the D.C. Circuit explained:

When issuing permits according to its BPJ, EPA is *required* to adhere to the technology-based standards set out in § 1311(b). States issuing permits pursuant to

defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined.”).

¹¹ See 33 U.S.C. §§ 1251(a), 1342(a).

¹² See, e.g., 40 C.F.R. § 122.44 (“[E]ach NPDES permit shall include conditions meeting the following requirements . . . Technology-based effluent limitations and standards based on: effluent limitations and standards promulgated under section 301 of the CWA, or new source performance standards promulgated under section 306 of CWA, on [sic] case-by-case effluent limitations determined under section 402(a)(1) of CWA, or a combination of the three, in accordance with § 125.3 of this chapter”); and 40 C.F.R. § 125.3 (“Technology-based treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act”).

¹³ Memorandum from James A. Hanlon, Director, US EPA Office of Wastewater Management, to Water Division Directors, “National Pollutant Discharge Elimination (NPDES) Permitting of Wastewater Discharges from Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) Impoundments at Steam Electric Power Plants” at 3 (June 7, 2010); see also *American Petroleum Institute v. E.P.A.* 661 F.2d 340, 344 (5th Cir. 1981) (“Section 301, in a radical departure from earlier Acts, goes further, to establish ‘technology-based’ limitations. These limitations require industry, regardless of a discharge’s effect on water quality, to employ defined levels of technology to meet effluent limitations. Analogous to a strict liability standard, this section mandated technological improvements and imposed stringent pollution restrictions even where the discharge caused no discernible harm to the environment.”).

¹⁴ See 33 U.S.C. §§ 1311, 1342(a)(1). Note that as a separate, additional requirement, if a discharge could cause or contribute to a violation of water quality standards in the receiving water, DEP is required to consider and include WQBELs in the NPDES permit to prevent the exceedance, and, upon comparing the applicable TBELs and WQBELs, the more stringent of the two would apply and be incorporated into the NPDES permit. 33 U.S.C. § 1312(a); 40 C.F.R. § 122.44(d)(1)(i).

¹⁵ 33 U.S.C. §§ 1311(b), 1314(b).

¹⁶ See *Natural Res. Def. Council v. EPA*, 859 F.2d 156, 183 (D.C. Cir. 1988).

¹⁷ *Id.* at 183; 33 U.S.C. §§ 1311(b)(2)(A), 1342(a); 40 C.F.R. § 122.44, 125.3(c)(2).

¹⁸ See 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 125.3.

§ 1342(b) stand in the shoes of the agency, and thus must similarly pay heed to § 1311(b)'s technology-based standards when exercising their BPJ.¹⁹

TBELs for toxic pollutants must reflect the “best available technology economically achievable,” or BAT.²⁰ In fact, in accordance with the Act’s goal of eliminating all discharges of pollutants, BAT limits “shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him . . . that such elimination is technologically and economically achievable”²¹

DEP correctly notes in the 2019 Fact Sheet that “this facility’s discharge should be regulated under the revised Steam Electric Subcategory (40 CFR 423) as combustion residual leachate,”²² which is defined by EPA as:

Leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (e.g., bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjointing property when under the operational control of the permitted facility.²³

DEP also correctly looked to EPA’s ELGs that were promulgated for combustion residual leachate in 2015,²⁴ proposing limits in the draft permit for TSS and oil and grease, and then opting for more stringent TSS concentrations to comply with the CWA’s antibacksliding provisions,²⁵ which Commenters appreciate.

However, the Fifth Circuit Court of Appeals recently struck down the Best Available Technology (“BAT”) limitations for leachate from existing sources established in 2015, noting that simply allowing impoundments—the technology upon which EPA purportedly established the BAT limits in the ELG rule—to “treat” leachate through sedimentation or settling is *not* the best available technology for treating leachate.²⁶ Moreover, the Fifth Circuit went on to strongly suggest that BAT may be chemical precipitation.²⁷ As it happens, EPA’s 2015 ELG Rule also established effluent limits for leachate at new sources (not affected by the 5th Circuit decision),

¹⁹ *Natural Res. Def. Council*, 859 F.2d at 183.

²⁰ *Id.*

²¹ 33 U.S.C. § 1311(b)(2)(A).

²² 2019 Fact Sheet, at 2.

²³ 40 C.F.R. § 423.11(r).

²⁴ EPA, Final Rule, Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67,838 (Nov. 3, 2015) (to be codified at 40 C.F.R. Pt. 423).

²⁵ See 2019 Fact Sheet, at 9; 40 C.F.R. § 122.44(l).

²⁶ *Sw. Elec. Power Co. v. United States Env'tl. Prot. Agency*, 920 F.3d 999, 1025, 1033 (5th Cir. 2019).

²⁷ *Id.* at 1029.

and based those limits on chemical precipitation.²⁸ Specifically, EPA set numeric effluent limits for mercury and arsenic, namely: for arsenic, a daily maximum limit of 11 ug/L and a 30-day average limit of 8 ug/L; and, for mercury, a daily maximum of 788 ng/L and a 30-day average limit of 356 ng/L.²⁹

DEP does not even require monitoring—ever—for arsenic or mercury from the Warren plant’s discharge of leachate from its old ash disposal ponds, let alone impose any actual limitations on discharges of these pollutants. DEP must use its best professional judgment to establish effluent limitations for the leachate discharges from the Warren Generating Station, and DEP should require elimination of all discharges of leachate at this facility if doing so is technologically and economically achievable. Short of that, given that EPA is basing its limitations on leachate from new sources on chemical precipitation, and given that the Fifth Circuit Court of Appeals strongly suggested that chemical precipitation is the best available technology for treating all leachate, DEP must use its best professional judgment to establish limits on arsenic and mercury from the Warren Generating Station’s leachate discharges that are consistent with the limits on leachate from new sources found at 40 CFR § 423.15(b)(16). Given that this facility already employs techniques like flocculation for this very discharge, attainment of these limits should be straightforward for this facility. These limits would constitute BAT and DEP’s final NPDES Permit for Warren must be revised to include these limits. In addition, DEP must require at least monthly monitoring of arsenic and mercury in order to ensure that these limits are being met.

b. DEP must require monitoring of mercury, arsenic, and all pollutants that were candidates for water-quality-based effluent limitations in order to protect the Allegheny River and the aquatic life that depends upon it.

Despite the fact that the Allegheny River is listed as “impaired” for mercury and that the source of the contamination is listed as “unknown,” DEP is proposing to renew this NPDES permit without even requiring GeOn REMA, LLC to *monitor* for mercury (let alone set limits on mercury discharges—see discussion *supra*).³⁰ This is especially egregious given that mercury was one of eight pollutants that DEP determined were candidates for water-quality-based effluent limitations from Outfall 002, the leachate discharge point.³¹ These pollutants are Total Dissolved Solids (“TDS”), Total Boron, Dissolved Iron, Total Manganese, Total Mercury, Total Nickel, Total Phenols (Phenolics), and Total Thallium.³²

²⁸ 80 Fed. Reg. at 67,854, 67,859 (stating that “EPA considered whether technologies in place for treatment of other wastestreams at steam electric power plants and wastestreams generated by other industries, including chemical precipitation, could be used for combustion residual leachate,” and establishing as best demonstrated control technology for new sources “standards on mercury and arsenic in discharges of combustion residual leachate, based on chemical precipitation (more specifically, the technology basis is a chemical precipitation system that employs hydroxide precipitation, sulfide precipitation, and iron coprecipitation to remove heavy metals)”).

²⁹ 40 C.F.R. § 423.15(b)(16); 80 Fed. Reg. at 67,859 (discussing that the New Source Performance Standards (“NSPS”) for leachate are based on chemical precipitation).

³⁰ See Fact Sheet, at 4, Draft Permit, at 2.

³¹ See Fact Sheet, at 4.

³² See *id.* at 8 & Attachments A and B.

Given that the Allegheny River is impaired for mercury, EPA must require at least monthly monitoring of these high-priority pollutants, at a minimum, to gain critical data regarding pollution levels entering the River and to ensure adequate protection of the River, the fish and wildlife that depend upon it, and the uses of the river.

III. DEP Must Impose Nickel and Chloride Limits in order to Protect Threatened and Endangered Mussel Species.

DEP admits that discharges of nickel will exceed the maximum level stated by the U.S. Fish and Wildlife Service (“US FWS”) needed to protect threatened and endangered mussel species (7.3 ug/L) and that GenOn REMA, LLC failed to sample for chloride so DEP has no idea whether discharges of chloride would exceed the US FWS limit (78 mg/l).³³ In fact, nickel was sampled at 52.6 ug/L—far exceeding 7.3 ug/L—and chloride was not sampled at all.³⁴ Despite this, DEP also admits, boldly, that “[b]ased on this data, the existing discharge from the generating station is not believed to be having any adverse impacts to threatened or endangered mussel species in the Allegheny River,” and DEP decided to impose no limits on these pollutants and require only quarterly monitoring for each.³⁵ DEP provided no additional data to support its decision, other than noting the assimilative capacity of the river.

The US FWS stated that “to protect threatened and endangered mussel species, wastewater discharges containing . . . chloride (Cl-) and nickel, where mussels or their habitat exist, can be no more than . . . 78 mg/L and 7.3 ug/L, respectively.”³⁶ This statement does not state that that receiving water’s concentration of these pollutants shall not exceed these levels, but that the “wasterwater discharges”—themselves—must not exceed these concentrations.

Consequently, DEP’s proposed monitoring requirements and failure to include limits fail to comply with the US FWS’s comments and, therefore, fail to protect threatened and endangered species from the leachate discharges. Given that chloride discharge concentrations are unknown and it is not noted whether threatened or endangered species might exist or have habitats that are right at the discharge point, which would render the assimilative capacity of the river less valuable anyway, and given that the US FWS statement is clear that the limits must apply to the discharges themselves (and not the receiving water) in order to protect these species, DEP must impose limits on nickel and chloride in order to protect threatened and endangered mussel species that equal the U.S. Fish and Wildlife Service’s comments, specifically limits from 002 of 78 mg/L for chloride and 7.3 ug/L for nickel.³⁷

³³ See Fact Sheet, at 10.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at 10.

³⁷ Commenters oppose and request that DEP reject GenOn REMA, LLC’s request to remove chloride and nickel monitoring from the permit requirements. The additional data submitted by GenOn is not sufficient to ensure that there will not be exceedances of the US FWS levels of either of these pollutants; to the contrary, limits as well as additional, regular monitoring of these pollutants are required to ensure protection of threatened and endangered mussel species.

IV. Conclusion

In conclusion, Commenters oppose DEP's Draft Renewal Permit No. PA0005053 for GenOn REMA, LLC's Warren Generating Station because it fails to set effluent limitations that reflect the best available technology or that would protect threatened and endangered mussel species and fails to establish monitoring requirements sufficient to protect water quality in the Allegheny River. Commenters respectfully urge DEP to require GenOn REMA, LLC to cease discharging combustion residual leachate altogether or to, at a minimum, add the limitations and monitoring requirements detailed in these comments.

Finally, several Commenters requested a public hearing on this permit, and Commenters reserve the right to submit additional public comments during that hearing and during any further extension of this comment period.

Sincerely,



Lisa Hallowell, Senior Attorney
Environmental Integrity Project
1000 Vermont Avenue NW, Suite 1100
Washington, DC 20005
Lhallowell@environmentalintegrity.org
(202) 294-3282

Aimee Erickson, Executive Director
Citizens Coal Council
130 Friend Road
Washington, PA 15301
(724) 470-3982

Barbara Lucia
1307 Pennsylvania Avenue West
Warren, PA 16365
(814) 723-7538

Tierra Curry, Senior Scientist
Center for Biological Diversity
P.O. Box 11374
Portland, OR 97211
(928) 522-3681

Piper VanOrd
Allegheny Outfitters
20 Clark Street Suite A
Warren PA 16365
(814) 723-3030

Michael V. Nixon, Esq.
700 Washington Avenue #312
Bridgeville, PA 15017
(503) 522-4257