

# Thermal Discharges/Steam-Electric Power Plant: U.S. EPA Environmental Appeals Board Addresses Challenge to NPDES Permit



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The United States Environmental Protection Agency (“EPA”) Environmental Appeals Board (“EAB”) addressed in an August 3rd Opinion a Petition for Review challenging certain conditions of a coal-fired, steam-electric power plant Clean Water Act National Pollution Discharge Elimination System (“NPDES”) permit. See *In Re GSP Merrimack L.L.C. NPDES Appeal*, Nos. 20-05 and 20-06.

The challenge included aspects of the NPDES permit dealing with discharges of heated cooling water (i.e., “thermal discharges”) and combustion residual leachate.

GSP Merrimack L.L.C. (“GSP Merrimack”) owns and operates a coal-fired, steam-electric power plant (“Plant”) in Bow, New Hampshire. EPA reissued a final NPDES permit to the Plant in May of 2020. The permit authorized the Plant to continue withdrawing cooling water from and discharging pollutants to the Merrimack River. Such pollutants included heated wastewater.

The Plant is stated to rely on an open-cycle cooling system that withdraws cooling water from the pool section of the Merrimack River. It then pumps the water through condenser units to absorb waste heat. The heated wastewater is discharged back into the river via a canal. This is also sometimes referred to as a “once-through” system.

The Sierra Club and Conservation Law Foundation (collectively “Petitioners”) challenged the NPDES permit issued to the Plant by EPA in May 2020. GSP Merrimack also challenged several conditions in the NPDES permit.

After the parties filed their briefs, EPA requested that the EAB remand the permit provision establishing effluent limits for combustion residual leachate. The agency indicated that as to the combustion residual leachate provision that it intended to develop revised effluent limits.

EPA also asked that the EAB address the remaining challenges raised by the Petitioners.

EAB grants EPA’s remand request on the combustion residual leachate provision. However, it also remands the other issues raised by the two petitions.

The environmental petitioners asserted various challenges to the NPDES permit thermal-discharge provisions which included:

- Basing the permits' thermal discharge limits on a variance granted under Section 316(a) of the Clean Water Act on both the statute's technology-based effluent limits as well as the state water-quality standards
- Moving the acute temperature compliance point for the permits instream temperature limits from a location immediately adjacent to the Plant to further downstream
- Including operational capacity limitations in the permit as an alternative method for demonstrating compliance with the permits' 316(a) variance-based instream temperature limits
- Removing narrative effluent limits on the thermal discharges from the permit
- Reinterpreting the permits' general provisions prohibiting the violation of state water quality standards as not applying to thermal discharges
- Allegedly assessing compliance with acute instream temperature limits based on the measurement of daily average temperature
- Termination of the requirement to meet acute instream temperature limits after July 31 in each year
- Failing to include a provision to protect fish from rapid temperature changes that may occur in the river due to frequent stopping and starting of the Plant
- Failing to use Best Professional Judgment and establish more stringent limits for combustion residual leachate

GSP Merrimack challenged:

- Requirement to install and operate cylindrical wedge wire screens as part of the cooling water intake from April 1 through August 15 annually
- Requirement to schedule maintenance outages of power generating Unit 2 between May 15 and June 15 annually
- Six-month deadline to install fish return sluices

EAB notes that it has generally exercised its discretion to grant a permit issuer's remand request where the permitting authority is considering modifying the permit and the circumstances support that approach. It determined that EPA erred by failing to provide adequate notice on an aspect of the thermal discharge effluent limits challenged by the environmental Petitioners and allowed the Plant to demonstrate compliance with these effluent limits by showing that it was operating at a reduced capacity.

EAB states that the capacity limitation did not appear in the draft permit or any notice issued by EPA. It found this capacity limitation related to many of the challenged issues. Therefore, it remanded the NPDES permit to EPA to address the various issues.

A copy of the Opinion can be downloaded [here](#).