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VIA EMAIL AND FEDERAL EXPRESS

John Paul King
United States Environmental Protection Agency,
Region 1
5 Post Office Square
Boston, Massachusetts 02109-3912
King.John@epa.gov

Re: Merrimack Station Draft NPDES Permit No. NH0001465
Our File No. 043593

Dear Mr. King:

In September 2011, U.S. EPA Region 1 provided public notice of Merrimack Station's draft NPDES Permit No. NH0001465 and sought public comments on the permit. The Water Task Force of the Ohio Utility Group and its member companies¹ (the "Utilities") submit the following comments regarding the permit. The Utilities operate power plants in Ohio that generate, transmit, and distribute electricity to residential and industrial customers. Thus, the Utilities have an interest in U.S. EPA determinations regarding the limits and technology imposed on the Merrimack Station as these limits have the potential to affect future NPDES permit conditions and limits at facilities outside of the Region 1 states.

First, the Utilities think that it is not proper for Region 1 to require the stringent limits contained in this permit, apparently derived from a Region 1 determination of Best Technology Available ("BTA"), when U.S. EPA has indicated that it intends to issue proposed National Effluent Limitation Guidelines ("ELGs") for the Steam Electric Power Generating industry in July 2012. U.S. EPA has been studying the need to update steam electric power plant ELGs—particularly those associated with flue gas desulfurization ("FGD") systems. Should U.S. EPA propose less stringent or different standards than those proposed by Region 1, Merrimack Station would be bound by the more stringent or different limitations due to anti-backsliding regulations. 40 C.F.R. 122.44(l). Region 1 should wait to issue new limits until there has been an opportunity to review U.S. EPA's proposed ELGs and they are finalized.

¹ Buckeye Power, Inc., Columbus Southern Power Company (AEP), The Dayton Power and Light Company, Duke Energy Ohio, Inc., FirstEnergy, Ohio Power Company (AEP), and the Ohio Valley Electric Corporation.

Likewise, U.S. EPA intends to make final by July 27, 2012 its Clean Water Act §316(b) regulations for existing power plants. The rules, as proposed, do not require closed cycle cooling as BTA for minimizing adverse environmental effects. 76 Fed. Reg. 22174 (Apr. 20, 2011). Thus, the Utilities believe it is inappropriate for Region 1 to determine that closed cycle cooling is BTA for Merrimack station at this time. The renewal of this permit has taken 14 years— Region 1 should be able to wait six months and at least consider U.S. EPA's recommendations for the ELGs and BTA for cooling water systems.

Second, it appears that Region 1 selectively relied on data from Duke Energy's Belews Creek and Allen power plants for the development of (overly stringent, we believe) Best Professional Judgment ("BPJ") effluent limitations applicable to FGD wastewater. The Utilities are aware that Duke Energy will be submitting comments on the use of data from these plants. The Utilities recommend that Region 1 consider that data fully before establishing such stringent limits in the Merrimack Station permit.

Third, the Utilities believe it is improper for Region 1 to rely on only two power plants to set Merrimack Station's limits. In fact, data from the Utilities' member companies indicate that Merrimack's limits are too low. By using the current treatment at these plants, it would be infeasible to meet Region 1's proposed limits— particularly for mercury and selenium. The ability to treat FGD wastewater depends on a variety of factors, including the type of FGD system, the type of coal used, the sorbent used, and the operation of other air pollution controls at the plant. The Utilities believe that Region 1 should have considered data from other power plants when setting the limits and that reliance on only two stations is not representative of what is currently feasible.

Appendix 1 to this letter includes data on treated FGD wastewater quality at selected coal-fired power plants that operate in Ohio and West Virginia. Average concentrations of FGD wastewater parameters (using measurements during, generally, the past three years) are compared against Region 1's proposed daily maximum effluent concentrations for Merrimack Station. The Utilities would like to note that FGD wastewater at all of the facilities is treated using traditional chemical and physical processes. In addition, all of the FGD wastewater treatment plants have enhanced mercury removal using organo-sulfide (or functionally equivalent) chemicals. While a biological reduction system may provide additional removal of some trace elements (e.g., selenium), the vast majority of pollutant mass removed occurs in the chemical and physical treatment process.

The results in Appendix 1 clearly indicate that at least some of the proposed effluent limitations for Merrimack Plant are considerably overly stringent. This is not surprising, since U.S. EPA apparently selected a very low statistical distribution point of Duke Energy's Allen and Belews Creek Stations effluent data to elucidate the proposed limitations. Clearly, U.S. EPA failed to consider the full range of treated FGD wastewater quality— at several power plant facilities— when considering what BPJ limitations are appropriate for Merrimack Station. The Utilities believe that the proposed effluent limitations fail to account for the full spectrum of wastewater quality and its variability. U.S. EPA makes no convincing argument that the FGD type, coal source, and raw FGD wastewater quality that applies to Allen and Belews Creek Stations are relevant— at any level— to Merrimack Station.

Fourth, Merrimack Station previously was granted a §316(a) variance for its thermal discharge. In issuing this draft permit, Region 1 denied the request to renew its variance and instead

determined that the thermal effluent was not protective of the receiving water body's balanced, indigenous population of shellfish, fish, and wildlife. Region 1 justifies this determination based on a shift in the indigenous population in Hooksett Pool since the 1960s. It is not unusual for water bodies to change over time. Changes in the ecosystem will likely result in a change in the population of fish and wildlife. Further, the Utilities note that the thermal discharge may result in thermal avoidance during warmer months but that the thermal discharge may be attractive to species during the colder months. The Utilities believe that Region 1 did not adequately consider Merrimack Station's variance request and incorrectly concluded that a closed cycle cooling system was Best Available Technology Economically Achievable ("BAT") for Merrimack Station's thermal discharge.

Fifth, Region 1 did not adequately consider the cost-benefit ratio in determining that a closed cycle cooling system was BAT and BTA. As Region 1 is aware, the Supreme Court upheld U.S. EPA's discretion to compare costs and benefits under §316(b). *Entergy v. Riverkeeper*, 556 U.S. 208 (2009). The Court found that U.S. EPA was not arbitrary and capricious for eliminating technology where the costs were "wholly disproportionate" or "substantially greater than the benefits." *Id.* at 224. However, Region 1 dismisses as insignificant the \$111.8 million (thermal) and \$79.2 million (entrainment/impingement) cost to construct and operate a closed cycle cooling system. For entrainment and impingement, Region 1 further rejects year round use of the closed cycle cooling system as "more expensive" than seasonal operation even though the costs are essentially the same as its estimate for construction and operation to meet BAT for the thermal discharge. Further, Region 1 admits that year round operation may be needed to meet the thermal discharge limits. The Utilities do not believe that this investment is insignificant and believe that this cost is likely to be wholly disproportionate to the benefits. For this reason, Region 1 should not impose a closed cycle cooling system as BAT and BTA for the Merrimack Station.

Finally, the Utilities understand that UWAG will be submitting comments on Merrimack's draft NPDES permit. The Utilities support those comments submitted on behalf of the electric utility trade organization and its member companies.

The Utilities thank Region 1 for extending the comment period to February 28th and providing the opportunity to comment. The Utilities hope that Region 1 will consider these comments in order to ensure that the limits and technology imposed in the permit are fair and economically and technically feasible.

Very truly yours,



Cheri A. Budzynski

CAB\bd

cc: Michael Snyder, Esq.
Michael Born, Esq.
Louis Tosi, Esq.
William Patberg, Esq.
The Water Task Force

Appendix 1. FGD treated wastewater quality (average concentrations) at selected coal-fired power plants in Ohio and West Virginia. All facilities have an FGD wastewater treatment plant facility that utilizes traditional chemical and physical treatment, plus enhanced mercury removal (organo-sulfide or functionally equivalent chemical). None of these data represent wastewater quality following biological reduction treatment. Average values in bold italic indicate values greater than U.S. EPA's proposed FGD wastewater quality for Merrimack Station (maximum daily limitation).

Pollutant	Proposed Merrimack daily maximum limitation	Conesville Plant (OH)	Amos Plant (WV)	Cardinal Plant (OH)	Mitchell Plant (WV)	Mountaineer Plant (WV)	Sammis Plant (OH)
Arsenic (µg/L)	15		8.3	<i>58.2</i>	13		<i>141</i>
Cadmium (µg/L)	50	0.1	40.5	<2			
Chromium (µg/L)	10		2	<i>45.3</i>			<20
Copper (µg/L)	16		<i>21</i>	<10		<10	<20
Manganese (µg/L)	3,000		<i>19,600</i>			43	<i>3,907</i>
Mercury (µg/L)	0.014	<i>3.8</i>	<i>2.39</i>	<i>7.6</i>	<i>1.6</i>	<i>0.3</i>	<i>1.07</i>
Selenium (µ/L)	19	<i>877</i>	<i>194</i>	<i>230</i>	<i>97.5</i>	<i>581</i>	<i>152</i>
Zinc (µg/L)	15		<i>25</i>	14.3		8	<i>152</i>
TDS (mg/L)	35,000	8,901		9,026			16,329