



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF AIR AND RADIATION

MARCH 31, 2022

Mr. Jeffrey Hanson
Director, Environmental Services & Corporate Sustainability
Alliant Energy Corporation
4902 North Biltmore Lane
P.O. Box 77007
Madison, Wisconsin 53707-1007

Re: Petition for waiver of the requirement to provide operating data to qualify as “gas-fired” for Unit 1 at the Burlington Generating Station (Facility ID (ORISPL) 1104)

Dear Mr. Hanson:

The United States Environmental Protection Agency (EPA) has reviewed the November 22, 2021, petition submitted by Alliant Energy (Alliant) on behalf of its subsidiary Interstate Power and Light Company (IPL) under 40 CFR 75.66. The petition requests a waiver for Unit 1 at the Burlington Generating Station regarding the requirement to submit operating data to qualify as a “gas-fired” unit under 40 CFR 72.2. EPA approves the petition, with conditions, as discussed below.

Background

IPL owns and operates the Burlington Generating Station (Burlington) in Burlington, Iowa. Burlington Unit 1 has historically operated as a coal-fired boiler and serves an electricity generator with a nameplate capacity rating of 212 megawatts. According to Alliant, Unit 1 is subject to the Acid Rain Program and Cross-State Air Pollution Rule (CSAPR) trading programs for sulfur dioxide (SO₂) and annual and ozone season nitrogen oxides (NO_x). IPL is therefore required to continuously monitor and report SO₂, NO_x, and carbon dioxide (CO₂) mass emissions; NO_x emission rate; and heat input for this unit in accordance with 40 CFR part 75. To meet these monitoring requirements, IPL has installed and certified an SO₂ continuous emission monitoring system (CEMS), a NO_x-diluent CEMS, a CO₂ CEMS, and a stack gas flow rate monitor to measure emissions from Unit 1.

According to Alliant, Burlington Unit 1 is being converted to combust exclusively natural gas on and after January 1, 2022. A 2015 consent decree in litigation brought by the United States and other parties required IPL to either retire the unit or refuel it to combust exclusively natural gas no later than

December 31, 2021.¹ In 2018, the Iowa Department of Natural Resources (Iowa DNR) revised Burlington’s Clean Air Act Title V operating permit to incorporate these federally enforceable consent decree requirements.² After IPL elected the refueling option, in December 2021 Iowa DNR issued a construction permit expressly restricting the fuels combusted at Burlington Unit 1 to natural gas.³ In addition, Alliant states that fuel handling equipment necessary for coal and fuel oil combustion are being permanently removed from service, rendering the unit physically incapable of combusting either fuel.

Under part 75, units that meet the definition of “gas-fired” units in § 72.2 have monitoring options that are not available to coal-fired units, including the option to quantify a unit’s SO₂ mass emissions and heat input rate using the methodology in appendix D to part 75 that relies on measurements of the quantity and quality of fuel combusted as an alternative to using SO₂ and stack gas flow rate CEMS. Gas-fired units also have options for quantifying CO₂ mass emissions under appendix G to part 75 that are not available to coal-fired units.

In the November 22, 2021 petition, Alliant requests a waiver of an otherwise applicable condition for Burlington Unit 1 to be considered a gas-fired unit for the purposes of part 75. The definition of “gas-fired” in § 72.2 includes provisions under which a unit that previously did not qualify as gas-fired can qualify as gas-fired based upon the submission of operating data for three calendar years or 720 operating hours, whichever is less, demonstrating that the unit has combusted natural gas for specified minimum percentages of its overall fuel usage and only fuel oil for its remaining fuel usage. Alliant requests that Unit 1 be considered a gas-fired unit for purposes of part 75 without the submission of such operating data.

EPA’s Determination

Absent the waiver requested in Alliant’s petition, IPL would be required to submit three calendar years or 720 operating hours of operating data for Burlington Unit 1 following the conversion to gas-fired operation to demonstrate that the unit qualifies as gas-fired under § 72.2. The purpose of this data submission requirement is to provide assurance that the conversion is permanent. As described above, Alliant has provided information intended to demonstrate the permanence of the conversion. Specifically, the unit is subject to a judicially enforceable consent decree with the United States as well as federally enforceable permit conditions that prohibit the unit from combusting fuels other than natural gas after December 31, 2021. EPA views these factors as providing sufficient assurance that the unit’s conversion from coal to natural gas combustion is permanent, fulfilling the purpose of the operating data submission requirement and making that requirement unnecessary in this instance

¹ Consent Decree, *United States v. Interstate Power and Light Company*, Case 1:15-cv-00061 (N.D. Iowa, entered Sept. 2, 2015), pp.18-19; available at <https://www.epa.gov/enforcement/interstate-power-and-light-company-clean-air-act-settlement>.

² Burlington Title V Operating Permit, No. 98-TV-023R3 (Iowa DNR, issued June 4, 2018), p.28; available at <https://www.iowadnr.gov/portals/idnr/uploads/air/operpermit/finalpermits/98-TV-023R3.pdf>.

³ Burlington Air Quality Construction Permit, No. 93-A-390-S13 (Iowa DNR, issued Dec. 27, 2021), p.4; available at https://programs.iowadnr.gov/easyair/Public/EnSuite/Shared/pages/util/StreamDoc.ashx?id=39726&type=PERMIT_FILLED_OBJECT.

In view of these considerations, EPA approves Alliant's petition for a waiver of the requirement to submit three calendar years or 720 hours of unit operating data to demonstrate that Burlington Unit 1 meets the definition of "gas-fired" under § 72.2. Unit 1 is considered gas-fired for purposes of 40 CFR part 75, the Acid Rain Program, and CSAPR as of the first hour of operation on or after January 1, 2022. EPA notes that this approval by itself does not alter any requirement to continue to use a CEMS that may arise under legal authority other than 40 CFR part 75, such as the facility's Title V operating permit, a state regulation, or a consent decree.

Conditions of Approval

As conditions of this approval for Burlington Unit 1 to be considered a gas-fired unit for purposes of 40 CFR part 75, the Acid Rain Program, and CSAPR without the submission of operating data that would otherwise be required, IPL shall:

1. Make all necessary revisions to the electronic monitoring plan for Burlington Unit 1 to represent the change from coal-fired to natural gas-fired. The monitoring plan revisions may include, but are not limited to, assigning appropriate closeout dates, activation dates, and codes for monitoring systems, monitoring methodologies, emissions and heat input rate formulas, and monitoring system span and range values;
2. If IPL elects to use the monitoring methodology under appendix D to part 75, ensure that the natural gas fuel flowmeters are certified according to section 2.1.5 of appendix D to part 75; and
3. If IPL elects to use the monitoring methodology under appendix D to part 75, ensure that the data acquisition and handling systems are properly programmed to use the appendix D methodology for quantifying SO₂ mass emissions and heat input rate and Equation G-4 for quantifying CO₂ mass emissions.

EPA's determination relies on the accuracy and completeness of Alliant's November 22, 2021 petition and is appealable under 40 CFR part 78. If you have any questions regarding this determination, please contact Ron Sobocinski at (202) 343-9722 or by e-mail at sobocinski.ron@epa.gov.

Sincerely,

Rona Birnbaum, Director
Clean Air Markets Division

cc: Scott Postma, EPA Region 7
Mr. Chris Kjellmark, Iowa DNR
Mark Fields, Iowa DNR