

March 21, 2017

Mr. Jason Fortik, P.E.
Vice President, Power Supply
Lincoln Electric System
1040 O Street
P.O. Box 80869
Lincoln, NE 68501-0869

Re: Petition for a waiver of the 50-ton ozone-season NO_x limit for Unit 1 at the Rokeby Generating Station (Facility ID (ORISPL) 6373)

Dear Mr. Fortik:

The United States Environmental Protection Agency (EPA) has reviewed the December 29, 2016 petition¹ submitted under 40 CFR § 75.66 by Lincoln Electric System (LES), in which LES requested a waiver from the 50-ton ozone-season nitrogen oxides (NO_x) limit for Unit 1 at the Rokeby Generating Station. EPA approves the petition, with conditions, as discussed below.

Background

LES owns and operates the Rokeby Generating Station located in Lancaster County, Nebraska. Unit 1 is a combustion turbine serving a generator with a capacity of 72 megawatts (MW). Unit 1 combusts pipeline natural gas as its primary fuel and diesel oil as a secondary fuel. According to LES, the unit is subject to the Cross-State Air Pollution Rule (CSAPR) annual trading programs for sulfur dioxide (SO₂) and NO_x. LES is therefore required to continuously monitor and report SO₂ and NO_x mass emissions and heat input for Unit 1 in accordance with 40 CFR part 75.

LES has elected to use the low mass emissions (LME) methodology in § 75.19 to satisfy the part 75 monitoring requirements for Rokeby Unit 1. Under § 75.19(a)(1)(i)(A)(2) and (a)(1)(i)(B), in order to remain qualified to use the LME methodology, a unit that reports NO_x mass emissions year-round and is not subject to the Acid Rain Program, such as Rokeby Unit 1, must annually demonstrate that its NO_x mass emissions are less than 100 tons annually and no more than 50 tons during the ozone season. Under § 75.19(b)(2)(ii), exceeding either the annual NO_x limit or the ozone-season NO_x limit in a given year causes a unit to lose its LME status and

¹ EPA received an amended petition on March 13, 2017.

requires that the unit implement another part 75 monitoring methodology by December 31st of the calendar year immediately following the year in which the NO_x limit was exceeded.

Under § 75.19(c)(1)(ii), a unit combusting only natural gas and/or fuel oil may determine reported NO_x mass emissions using either default NO_x emission rates from Table LM-2 of § 75.19 or fuel-and-unit-specific NO_x emission rates determined based on testing. Historically, LES has elected to report Unit 1's NO_x mass emissions using the default NO_x emission rate of 0.7 lb/mmBtu specified in Table LM-2 for the combustion of natural gas in a turbine. However, in 2015 (and in 2016), Unit 1's reported NO_x mass emissions as calculated using the default 0.7 lb/mmBtu NO_x emission rate, although less than 100 tons for the year, exceeded 50 tons during the ozone season. Absent a waiver of the requirement to demonstrate that the unit's reported NO_x mass emissions for the 2015 ozone season were no more than 50 tons, the unit would lose its qualification to use the LME methodology and LES would be required to implement another part 75 monitoring methodology by December 31, 2016.

On December 29, 2016, LES submitted a petition requesting a waiver of the 50-ton ozone-season NO_x limit for calendar year 2015 in order to allow Unit 1 to qualify to use the LME methodology in 2017.² In the petition, LES offers two arguments in support of its request. First, LES suggests that waiver of the LME qualification requirement related to ozone-season NO_x emissions is appropriate for Unit 1 because the unit is not otherwise subject to part 75 requirements related to its ozone-season NO_x mass emissions (except to the extent that those emissions are part of the unit's annual NO_x mass emissions). LES points out that when the current LME qualification provisions were adopted in 2002, no NO_x mass emissions regulatory program existed that established part 75 requirements related to annual but not ozone-season NO_x mass emissions. The NO_x Budget Trading Program, which was promulgated in 1998 and was implemented from 2003 through 2008 established part 75 requirements related to ozone-season NO_x mass emissions for all units affected under that program. The first program establishing part 75 requirements related to annual but not ozone-season NO_x mass emissions, for units in some states, was the Clean Air Interstate Rule (CAIR), which was promulgated in 2005 and implemented from 2009 through 2014. Units in Nebraska were not subject to CAIR and first became subject to part 75 requirements related to annual NO_x mass emissions, but not ozone-season NO_x mass emissions, when CSAPR was implemented in 2015, replacing CAIR.

The second argument LES offers in support of its request is that, according to LES, Unit 1's emissions during the 2015 ozone season were reported as higher than 50 tons only because the default NO_x emission rate of 0.7 lb/mmBtu from Table LM-2 in § 75.19 that LES used to compute the reported 2015 emissions was higher than Unit 1's actual NO_x emission rate during that time period. LES completed a four-load appendix E test of Rokeby Unit 1's NO_x emission rate on July 21, 2016. The highest three-run average NO_x emission rate at any load level was 0.254 lb/mmBtu. According to LES, if this site-specific emission factor instead of the default emission rate of 0.7 lb/mmBtu had been applied to Unit 1's 2015 and 2016 ozone-season heat input data, the unit's reported 2015 and 2016 ozone-season NO_x mass emissions would have

² The amended petition submitted March 10, 2017 requested a waiver of the 50-ton ozone-season NO_x limit for calendar year 2016 as well.

been much lower than 50 tons (see Table 1 below, which was provided by LES with its amended petition).

Table 1: Rokeby Unit 1 2015 and 2016 NO_x mass emissions data³

Time Period	Heat Input (mmBtu)	NO _x Emission Factor (lb/mmBtu)	NO _x Mass Emissions (lb)	NO _x Mass Emissions (tons)
2015 Annual (Jan. 1 – Dec. 31)	213,589.50	0.700 lb/mmBtu (from Table LM-2)	149,500	75
		0.254 lb/mmBtu (from July 2016 test)	54,300	27
2015 Ozone Season (May 1 – Sep. 30)	179,230.70	0.700 lb/mmBtu (from Table LM-2)	125,500	63
		0.254 lb/mmBtu (from July 2016 test)	45,500	23
2016 Annual (Jan. 1 – Dec. 31)	218,459.70	0.700 lb/mmBtu (from Table LM-2) through July 22 and then 0.254 lb/mmBtu	111,400	56
		0.254 lb/mmBtu (from Jul 2016 test) in all hours	55,400	28
2016 Ozone Season (May 1 – Sep. 30)	188,254.70	0.700 lb/mmBtu (from Table LM-2) through July 22 and then 0.254 lb/mmBtu (from July 2016 test)	103,600	52
		0.254 lb/mmBtu (from July 2016 test) in all hours	47,600	24

To avoid any future issues regarding the 50-ton ozone season limit for Unit 1, in the petition LES proposes: (1) to use the 0.254 lb/mmBtu NO_x emission factor for part 75 reporting, starting on July 22, 2016, as allowed by § 75.19(c)(1)(iv); (2) to make the necessary monitoring plan revisions to effect this change; (3) to submit the appendix E test results electronically; and (4) to resubmit the affected quarterly emissions report(s).

EPA’s Determination

For the following reasons, EPA approves with conditions LES’s petition to waive the LME qualification requirement under 40 CFR 75.19(a)(1)(i)(A)(2) and (a)(1)(i)(B) for Rokeby Unit 1 to report no more than 50 tons of NO_x emissions during the 2015 and 2016 ozone

³ The annual and ozone season mass emissions totals are rounded to the nearest hundreds position for lbs and the nearest ton. The reported mass emissions, when rounded to the nearest whole ton, match the values found in Table 1.

seasons. First, EPA agrees that the purpose of including the 50-ton limit in the part 75 regulations in addition to the 100-ton annual limit was to ensure that regardless of whether a unit reported NO_x mass emissions for the full year or only the ozone season, because all units were expected to be subject to the ozone-season NO_x requirements under the NO_x Budget Trading Program, those units that chose to use the LME methodology in place of other monitoring approaches would be subject to a consistent qualification requirement as to ozone-season NO_x mass emissions.⁴ Second, because Rokeby Unit 1 is not otherwise subject to part 75 requirements specifically related to ozone-season NO_x mass emissions (except to the extent that those emissions are part of the unit's annual NO_x mass emissions), the purpose of ensuring consistent treatment across all units subject to part 75 requirements related to ozone-season NO_x mass emissions does not apply in this instance. Third, allowing Rokeby Unit 1 to use the LME methodology through this waiver does not expand the universe of units eligible to use methods other than continuous emissions monitoring systems (CEMS) to meet part 75 requirements, because the unit could in any event qualify to monitor its NO_x mass emissions using appendix E to part 75, which similarly does not require the use of NO_x CEMS equipment.

In granting the waiver, EPA is not relying on the results of the 2016 emission rate testing conducted by LES. In general, emission testing conducted after the time has passed for meeting a given part 75 requirement may not be used to retroactively satisfy the requirement even in cases where testing achieving comparable results, if conducted at an earlier point in time, could have been used to satisfy the requirement.

EPA notes that this waiver extends to the LME qualification requirements only as they apply to 2015 and 2016 ozone-season NO_x mass emissions. LES has not requested a waiver as to emissions in any other year. Further, according to the petition, LES appears capable of avoiding any possible need to request a waiver for any other year based on the stated plan to use a fuel-and-unit-specific NO_x emission rate in place of the 0.7 lb/mmBtu default NO_x emission rate from Table LM-2 in § 75.19 to compute Unit 1's emissions under the LME methodology on and after July 22, 2016. EPA also notes that this waiver is not a general authorization for LES to use the LME methodology for Unit 1 in future years, for example, if the unit's emissions were to increase or if EPA were to revise part 75 so as to change the qualification requirements for use of the LME methodology.

Conditions of Approval

1. LES shall use the ECMPS Client Tool to submit the results of the July 21, 2016 four-load appendix E test electronically.
2. LES shall revise the electronic monitoring plan for Rokeby Unit 1 by adding a closeout date of July 21, 2016 to the 0.700 lb/mmBtu default NO_x emission rate and activating the 0.254 lb/mmBtu NO_x emission rate on July 22, 2016.
3. LES shall use the 0.254 lb/mmBtu NO_x emission rate from the July 21, 2016 test to report NO_x mass emissions from Rokeby Unit 1, starting on July 22, 2016.

⁴ See 67 FR 40394, 40403 (June 12, 2002).

4. LES shall use the ECMPS Client Tool to resubmit the 3rd and 4th quarter 2016 electronic emission reports for Rokeby Unit 1. LES shall coordinate resubmission of the data with Mr. Craig Hillock, who may be reached at (202) 343-9105 or by e-mail at hillock.craig@epa.gov.
5. LES shall resolve any NO_x allowance accounting issues for Unit 1 by coordinating with Mr. Kenon Smith, who may be reached at (202) 343-9164 or by e-mail at smith.kenon@epa.gov.

EPA's determination relies on the accuracy and completeness of LES's December 29, 2016 petition and March 10, 2017 amended petition and is appealable under part 78. If you have any questions regarding this determination, please contact Charles Frushour, at (202) 343-9847 or by e-mail at frushour.charles@epa.gov.

Sincerely,

/s/

Richard A. Haeuber, Acting Director
Clean Air Markets Division

cc:

Jon Knodel, EPA Region VII
Todd Ellis, Nebraska DEQ
Craig Hillock, CAMD
Kenon Smith, CAMD
Robert Vollaro, CAMD