

ILLINOIS POLLUTION CONTROL BOARD
June 16, 2016

EXELON GENERATION LLC,)	
)	
Petitioner,)	
)	
v.)	PCB 16-106
)	(Variance - Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

ORDER OF THE BOARD (by C.K.Zalewski):

On May 18, 2016, Exelon Generation, LLC (Exelon) filed a petition for variance (Pet.) for four nuclear generating stations: the Byron Generating Station, Ogle County (Byron); the Clinton Generating Station, DeWitt County (Clinton); the Dresden Generating Station, Grundy County (Dresden); and the LaSalle Generating Station, LaSalle County (LaSalle). On June 2, 2016, the Board issued an order assigning the case to a hearing officer and outlining the procedural timeline of the case.

On June 6, 2016, Exelon filed a certification of publication stating that public notice of the petition was published in the Tempo which is circulated in Ogle County on May 19, 2016, the Clinton Journal in DeWitt County on May 20, 2016, the Morris Herald-News in Grundy County on May 19, 2016, and The Times in LaSalle County on May 19, 2016. As stated in the newspaper notices, a request for hearing may be made within 21 days after publication. 35 Ill. Adm. Code 104.224(c). However, the opportunity for public comment on the petition is open until either 14 days after the close of the hearing or 30 days before the decision deadline. 35 Ill. Adm. Code 104.224(d). There is no hearing currently scheduled in this case and the decision deadline is September 15, 2016.

In this order, the Board directs Exelon to provide additional information in response to the following list of questions. Section 35 of the Environmental Protection Act (Act) provides that “the Board may grant individual variances . . . whenever it is found, upon presentation of adequate proof, that compliance with any rule or regulation . . . would impose an arbitrary or unreasonable hardship.” 415 ILCS 5/35 (2014). In the petition, Exelon argues that complying with the Nuclear Regulatory Commission’s rules and regulations constitutes an arbitrary and unreasonable hardship under Section 35 of the Act. Pet. at 4, 5, 7-10. Therefore, separate from the questions, below, the Board directs Exelon to brief the Board on the legal authority for Exelon’s argument. The Board is particularly interested in legal precedent for compliance with rules and regulations in one area of the law serving as an arbitrary and unreasonable hardship in justification for relief from another area of the law.

35 Ill. Adm. Code 104.204(b)(1)

1. Exelon states that the four facilities are “not currently impacting the Lemont and Pekin NAAs [non-attainment areas]...” Pet. at 7. The Board directs Exelon to identify the geographic area or areas that the requested variance would affect. The Board also directs Exelon to compare existing levels of SO₂ in the affected areas to the National Ambient Air Quality Standards (NAAQS).
2. Provide a map layering the following four pieces of information: a) the locations of the air quality monitoring stations (found in the “Illinois Annual Air Quality Report”; b) currently designated SO₂ NAA; c) SO₂ NAAs USEPA intends to designate as set forth in its February 16, 2016 letter to the IEPA; and d) the four facilities in the requested variance.

35 Ill. Adm. Code 104.204(c)

3. Tables 2 and 3 of Appendix A to the petition appear to contain a double-counting mathematical error. For Dresden, the figures for the Small Tanks and Large Tank are totaled within the table. However, the totals calculated for all four facilities combined include the figures for the Dresden Small Tanks and Large Tank plus the total for both. Pet. at 20-21, App. A. Provide updated tables with corrected figures and comment on any resulting revisions to the petition.
4. Table 4 of Appendix A to the petition contains the expected emissions per facility on a yearly basis. Pet. at 21. Provide an updated table showing the total SO₂ emissions in tons for each facility over the number of years the variance is requested for each facility. Quantify the difference in emissions between the variance and compliance with the Sulfur Content Rule. Include the total overall emissions in tons for all facilities.

35 Ill. Adm. Code 104.204(d)

5. Exelon states that it has been replenishing the stored fuel with ultra low sulfur diesel fuel (ULSD) since 2007 (except at Clinton where it began replenishing with ULSD in 2010) but still has 707,000 gallons of stored fuel that exceed the 15 ppm standard. For example, the Unit 1 Diesel Fuel Day Tank at the LaSalle facility still contains 211 ppm sulfur after nine years of dilution. Pet. at 3, 23, 25, Table 8 to Appendix B.
 - a. What is the “shelf-life” of the diesel fuel--both the higher-sulfur-content diesel fuel and the ULSD?
 - b. Explain how fuel stability is maintained. Are proper storage and the use of additives essential to preventing fuel degradation?
 - c. Does Exelon’s compliance plan compromise fuel stability?

35 Ill. Adm. Code 104.204(e)

6. Table 9 in Appendix C of the petition appears to conflict with other statements in the petition. The petition states, for example, that Exelon “will not incur any additional costs to come into compliance with the Sulfur Content Rule under the terms of the requested variance.” Pet. at 18.

Therefore, the Board directs Exelon to clarify Table 9 of Appendix C and distinguish between: 1) the maintenance costs for emergency fuel supplies under NRC regulations; 2) the operating costs under the proposed variance compliance plan; and 3) the costs of compliance with the Board’s Sulfur Content Rule on January 1, 2017.

Furthermore, does the \$375,181 estimated cost for Dresden Boiler fuel replacement, (Table 9 of Appendix C) represent the cost of bringing that tank into compliance with the Sulfur Content Rule before January 1, 2017?

Finally, the Board directs Exelon to provide:

- a. additional detail on the constituent parts of the \$3,950,036 and \$2,202,976 figures provided in Table 9; and
 - b. a line-item comparison between the costs of January 1, 2017 compliance with the Sulfur Content Rule versus the costs of the petition’s proposed compliance plan.
7. The Board directs Exelon to comment on the costs of bringing some of the tanks with the highest sulfur content and the largest volume of fuel into compliance with the Sulfur Content Rule as a part of its compliance plan. For example, how much would it cost to bring the following units into compliance: “Unit 2/3 Aux Heating Boiler Diesel Fuel Tank” (Appendix B, Table 7); and “EDG Unit 1 Diesel Fuel Storage Tank”; “EDG Unit 2 Diesel Fuel Storage Tank”; and “EDG Common Diesel Fuel Storage Tank” (Appendix B, Table 8).

35 Ill. Adm. Code 104.204(f)

8. When describing the compliance plan, Exelon stated: “The tanks at each Facility currently contain diesel with varying sulfur concentrations. Not all tanks have been sampled and the available sulfur data has been collected by taking grab samples. Exelon Generation selected 250 ppm as a maximum concentration for this variance in order to be conservative and provide a compliance margin.” Pet. at 19.

Tables 5-8 in Appendix C of the petition contain the sulfur concentration measurements from the tanks at each of the four facilities. All tanks listed at Byron and Clinton have been sampled. Only a 2000-gallon tank at Byron had more than 132 ppm, and only a 731-gallon and 35,000-gallon tank at Clinton had more than 160 ppm. At Dresden, only a 150,000-gallon tank had an uncertain value, but it was less than 150 ppm, while the other tanks were all below 21 ppm. The LaSalle station had the most untested tanks (10

out of 15), but were characterized as mimicking values no more than 211 ppm. App. C, Tables 5-8.

Under Exelon's compliance plan with a 250 ppm sulfur limit across the board, Exelon's Table 3 shows this would result in a potential to emit of 1.6071 tons SO₂ during the variance period. That amount is more than the "worst case scenario" identified in Table 2 in Appendix A of the petition. Pet. at 20-21, App. A, Table 2-3.

- a. Comment on revising the compliance plan to limit the sulfur content of the fuel on a tank-by-tank (or tank group or station) basis using the measured values in Tables 5-8 plus a factor-of-safety rather than a generic 250 ppm limit for all tanks across all four facilities.
 - b. For the tanks that have not yet been tested, how long would it take to have them tested and how much it would cost?
9. Exelon states that emissions "will be offset, in part, by the recent change to fuel the Dresden auxiliary boilers with natural gas. This switch was implemented on October 25, 2015 and directionally will reduce SO₂ emissions at Dresden Station." Pet. at 22. In prior SO₂ air variances cases before the Board, petitioners have developed compliance plans to provide a net benefit to Illinois air quality and the environment.²

The Board directs Exelon to evaluate the opportunity to offset increased emissions in its compliance plan.

35 Ill. Adm. Code 104.204(g)

10. 35 Ill. Adm. Code 104.204(g)(3) requires that the petitioner take measures during the period of the variance to minimize the impact of the discharge of contaminants on human, plant, and animal life in the affected area. Respond to this requirement. Include

¹ This figure appears to be in error due to double counting. The TU estimates the correct figure is 1.286 tons. A question is posed above.

² In a previous variance case, Midwest Generation proposed a compliance plan to provide a net benefit to Illinois air quality through early shutdowns of coal-fired units at two of its stations to produce reductions in SO₂, NO_x and mercury. Midwest Generation, LLC—Waukegan Generating Station v. IEPA, PCB 12-121, slip op. at 14, 16, 21 (Aug. 23, 2012). In another variance case, Ameren proposed a compliance plan to provide for a net benefit to Illinois air quality and mitigate the environmental impact of SO₂ emissions. Ameren Energy Resources v. IEPA, PCB 12-126, slip op. at 8 (Sept. 20, 2012). During the variance term, Ameren agreed not to operate two of its stations and to operate air pollution control systems at two other stations at a higher level of control. *Id.* at 9. In a third variance case, Illinois Power Holdings agreed to the operational constraints illustrated in PCB 12-126 as well as a cap on system-wide mass emissions of SO₂ to ensure a net benefit to Illinois air quality. Illinois Power Holdings, LLC, Ameren Energy Medina Valley Cogen, LLC, and Ameren Energy Resources, LLC v. IEPA, PCB 14-10, slip op. at 22, 103 (Nov. 21, 2013).

the numerical interim sulfur content limitations that can be achieved during the period of the variance.

35 Ill. Adm. Code 104.204(i)

11. Indicate whether the requested variance involves existing permits or permit applications. If so, provide the material portion of the permits or applications along with the permit numbers, if already assigned.

General

12. Exelon refers to selling existing fuel “to someone who could lawfully use it.” Pet. at 22. Further, Exelon states that the cost estimate of removing the existing fuel from the tanks and replacing it with ULSD “takes into account any resale value for the current fuel.” Pet at 24. Appendix C, Table 9 to the petition details the cost estimate for emptying and replenishing the fuel tanks.

The Board directs Exelon to provide additional detail on the resale market for the diesel fuel with sulfur content greater than 15 ppm. Specifically:

- a. How did Exelon arrive at the \$0.40/gal price for recycling of fuel (Appendix C, Table 9)?
 - b. Does the sale price of the diesel fuel in the tanks differ from the “recycling of fuel” price?
 - c. Has Exelon sold diesel from the tanks at any of the four facilities in the past two years? Were those sales made at the \$.40/gal price?
 - d. Has Exelon identified potential buyers who may lawfully use the fuel?
13. During the Sulfur Content Rule rulemaking process, IEPA stated that it identified approximately 725 sources affected by the rule, including Exelon facilities, and contacted owners of those facilities. Several sources obtained relief in that rulemaking to address existing stocks of noncompliant fuel. *See, e.g.*, 35 Ill. Adm. Code 214.161(c). Did Exelon communicate with IEPA about that rulemaking? If not, why?
 14. Exelon recently announced a plan to close the Clinton and Quad Cities facilities.
 - a. Should Exelon’s plan to close the Clinton facility be reflected in the petition for variance? Explain.
 - b. If Exelon closes the Clinton and Quad Cities facilities, what will happen to the diesel fuel stored at those facilities?
 - c. Does the \$0.40/gal “recycling of fuel” price found in Table 9 of Appendix C apply to the sale of that fuel?

15. The Board notes that while Exelon purchased only ULSD for the Byron, Dresden, and LaSalle facilities beginning in 2007, it continued to purchase standard, higher sulfur content diesel for the Clinton facility until 2010. The Board directs Exelon to provide an explanation for Exelon's decision to continue the purchase of higher sulfur diesel at the Clinton facility.

The Board directs Exelon to file its brief and the responses to the Board's questions by July 19, 2016. July 19 is also the latest possible date by which Exelon may respond to the IEPA's recommendation, due July 5, 2016. The IEPA is directed to file any reply to Exelon's brief by August 2, 2016.

IT IS SO ORDERED.

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above order on June 16, 2016 by a vote of 5-0.



John T. Therriault, Clerk
Illinois Pollution Control Board