

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE

To: John Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph, Suite 11-500
Chicago, Illinois 60601-3218

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the Appearance and Recommendation of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Assistant Counsel

DATED: July 5, 2016
1021 N. Grand Ave. East
P.O. Box 19276
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(217) 782-5544

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APPEARANCE

The undersigned hereby enters her appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
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RECOMMENDATION

The Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”), by its attorney, hereby responds to the Petition for Variance (“Petition”) of Exelon Generation, LLC (“Exelon”) from the sulfur content limitation for distillate fuel oil set forth in 35 Ill. Adm. Code 214.161(b)(2). Pursuant to Section 37(a) of the Illinois Environmental Protection Act (“Act”) [415 ILCS 5/37(a)] and 35 Ill. Adm. Code 104.216, the Illinois EPA does not object to the Illinois Pollution Control Board (“Board”) granting Exelon’s Petition as specified in this Recommendation. In support of its recommendation, the Illinois EPA states as follows.

I. PROCEDURAL HISTORY

1. On May 18, 2016, Exelon filed its Petition with the Board, requesting a variance from the 15 parts per million (ppm) sulfur content limitation for distillate fuel oil set forth in 35 Ill. Adm. Code 214.161(b)(2). Exelon requested relief from January 1, 2017, through December 31, 2019, for its Byron and Dresden Stations; from January 1, 2017, through December 31, 2020, for its Clinton Station; and from January 1, 2017, through December 31, 2021, for its LaSalle Station. Petition at 4-5.

2. Pursuant to the Board’s procedural rules, the petitioner must provide public notice of any petition for variance within 14 days after the filing of the petition. 35 Ill. Adm. Code

104.214(a); *see also* 415 ILCS 5/37(a). Additionally, the petitioner must provide written notice of a petition to the County State's Attorney, the Chairman of the County Board, each member of the General Assembly from the legislative district affected, and any person in the county who has filed a written request with the Board for notice of variance petitions. 35 Ill. Adm. Code 104.214(b).

3. Section 104.214(f) of the Board's procedural rules provides, "Within 21 days after the publication of notice, the petitioner must file with the Board a certification of publication that states the date on which the notice was published and must attach a copy of the published notice." 35 Ill. Adm. Code 104.214(f). In accordance with this requirement, Exelon filed a Certification of Publication with the Board on June 6, 2016.

4. Unless otherwise ordered by the hearing officer or Board, the Illinois EPA is required to make a recommendation to the Board on the disposition of a petition for variance within 45 days of the filing of the petition or any amendment thereto, or at least 30 days before a scheduled hearing, whichever is earlier. 35 Ill. Adm. Code 104.216. In its June 2, 2016, Order, the Board indicated that the Agency's recommendation is due July 5, 2016.

II. BACKGROUND REGARDING AFFECTED FACILITIES

5. Exelon requests a variance for its Byron, Clinton, Dresden, and LaSalle Stations, which Exelon collectively refers to as its "Facilities." The Illinois EPA accepts and incorporates by reference Exelon's description of its Facilities set forth in Section V of its Petition. Petition at 10-16. Exelon explains that its two additional nuclear facilities, the Braidwood and Quad Cities Stations, will be in compliance with the distillate fuel oil sulfur content limitation by the January 1, 2017, compliance deadline, and are not subject to this variance proceeding. Petition at 2, footnote 1.

6. Exelon explains that the Facilities are required to maintain large volumes of diesel fuel to power emergency generators, auxiliary boilers (at two of the Facilities), and fire pumps, equipment that Exelon collectively refers to as its “Emergency Equipment.” Petition at 2. The Nuclear Regulatory Commission (“NRC”) requires that the Facilities maintain this equipment to be used in emergency situations, such as during power losses. Petition at 7. The NRC also requires that the Emergency Equipment “be maintained in a condition that will ensure they will startup and provide emergency power when called upon at a high degree of readiness.” Petition at 7. Exelon explains that this “availability” requirement limits the amount of time Exelon can perform preventative maintenance on the equipment and the associated fuel tanks.

7. Exelon further explains that NRC regulations require that the Facilities store and maintain on-site enough fuel to power the Emergency Equipment for up to seven days. Petition at 7. Exelon indicates, “If the minimum inventory is not immediately available, the plant enters a Limiting Condition for Operation (‘LCO’) for the associated emergency engines.” Petition at 9. This threatens the pertinent station’s ability to meet applicable availability and operability requirements, and if not corrected within seven days, obligates the station to “begin a controlled shutdown of the affected nuclear reactor.” Petition at 9.

8. Exelon indicates that the federally enforceable state operating permits (“FESOPs”) for the Facilities restrict the usage of, and emissions from, the Emergency Equipment. Similarly, some of the Emergency Equipment is subject to federal New Source Performance Standards (“NSPS”) and National Emission Standards for Hazardous Air Pollutants (“NESHAP”), which also restrict the amount of time the Emergency Equipment can be operated. Petition at 8-9.

9. Exelon explains that, in 2007 for the Byron, Dresden, and LaSalle Stations and in 2010 for the Clinton Station, it began purchasing only ultra-low sulfur diesel fuel (i.e., fuel with sulfur content no greater than 15 ppm) to replenish any fuel depleted from the pertinent diesel fuel storage tanks. Petition at 11-15. While this has resulted in dilution of the sulfur content of the stored fuel, recent sampling of a representative number of tanks at the Facilities indicates that “there is fuel in the system that currently remains above 15 ppm.” Petition at 11-15.

10. To the best of the Illinois EPA's knowledge, there are no state enforcement actions against Exelon currently pending before the Board.

11. Other permits associated with Exelon’s Facilities are discussed in Section V of the Petition. Petition at 11-15.

III. RELIEF REQUESTED

12. Exelon requests relief from the following provision:

Section 214.161 Liquid Fuel Burned Exclusively

.....

b) Except as provided in subsections (c) and (d), on and after January 1, 2017, the owner or operator of an existing fuel combustion emission source, burning liquid fuel exclusively, must comply with the following:

.....

2) The sulfur content of all distillate fuel oil used by the fuel combustion emission source must not exceed 15 ppm; and

35 Ill. Adm. Code 214.161(b)(2).

13. In conjunction with this request, Exelon proposes to comply with a 250 ppm sulfur content limitation during the term of the variance, purchase only ultra-low sulfur diesel fuel beginning immediately upon issuance of the variance, comply with recordkeeping and reporting requirements, and comply with the 15 ppm limitation above by the end of the relevant

variance period. Petition at 19.

IV. FACTS PRESENTED IN THE PETITION

14. Pursuant to 35 Ill. Adm. Code 104.216(a), the Illinois EPA conducted an investigation of the facts alleged in Exelon's Petition, which included discussions with representatives of Exelon and with Region 5 of the United States Environmental Protection Agency ("USEPA"). To the extent of the information currently available to the Illinois EPA and its level of expertise, the Illinois EPA does not disagree with the facts set forth in Exelon's Petition, unless otherwise specified in this Recommendation.

15. To date, the Illinois EPA has not received any public comments regarding the Petition.

V. ENVIRONMENTAL IMPACT

16. Section 104.216(b)(2) of the Board's rules requires that the Illinois EPA state the location of the nearest air monitoring station maintained by the Agency, where applicable. 35 Ill. Adm. Code 104.216(b)(2). The sulfur dioxide ("SO₂") air monitoring station nearest to the Byron and LaSalle Stations is located in Oglesby, IL; the SO₂ monitoring station nearest to the Dresden Station is located in Lemont, IL; and the SO₂ monitoring station nearest to the Clinton Station is located in Decatur, IL. These are the same monitoring stations identified in the Petition. Petition at 10-15.

17. Exelon opines that the variance will have a "negligible" environmental impact. Even if all of the subject tanks were full of fuel with sulfur content of 250 ppm and Exelon consumed all of the fuel during the variance period, SO₂ emissions "would total less than two tons over what would be emitted using 15 ppm fuel." Petition at 20. Exelon argues, however, that since the tanks at issue do not contain 250 ppm fuel, such emissions "are not possible and

are included for illustration purposes only.” Petition at 21. Calculations based on the current sulfur concentrations of the fuel in the pertinent tanks (based on the highest measured sulfur content fuel in the larger tanks at the Byron, Clinton, and Dresden Stations and an average at the LaSalle Station) indicate that SO₂ emissions will be approximately 0.6 tons more than would be emitted using 15 ppm fuel. Exelon indicates it believes 0.6 tons represents the “worst-case scenario.” Finally, Exelon indicates that, based on its “calculation of expected emissions based on a realistic projection . . . [Exelon] anticipates that the variance would result in excess emissions on a yearly basis totaling less than one-tenth of one ton for all Facilities combined.” Petition at 21.

18. Exelon also indicates that it recently started fueling the Dresden auxiliary boilers primarily with natural gas. The additional emissions stemming from the variance will be partially offset by the emission reductions resulting from this change. Petition at 22. Further, Exelon argues that, if it is required to immediately drain the tanks and replace the fuel, mobile source emissions of SO₂, nitrogen dioxide (“NO_x”), and particulate matter (“PM”) will result.

19. Exelon’s estimated emissions of SO₂ as a result of the variance are consistent with the information currently available to, and reviewed by, the Illinois EPA during the course of its investigation of the Petition.

VI. ARBITRARY AND UNREASONABLE HARDSHIP

20. In considering whether to grant or deny a variance pursuant to Section 35(a) of the Act, the Board is required to determine whether the petitioner has shown that it would suffer an arbitrary or unreasonable hardship if required to comply with the regulation, requirement, or order of the Board at issue. 415 ILCS 5/35(a). The Board’s rules require that Illinois EPA estimate the cost that compliance would impose on the petitioner and on others, as well as the

injury that the grant of the variance would impose on the public and the environment. 35 Ill. Adm. Code 104.216(b)(5) and (b)(6).

21. Exelon argues that compliance with the regulatory requirement at issue by the January 1, 2017, compliance deadline would impose an arbitrary and unreasonable hardship, as “the compliance alternatives for meeting the [deadline] are either impractical, infeasible or could present a threat to nuclear safety at the Facilities,” and as the variance will have “negligible environmental impacts.” Petition at 23.

22. Exelon indicates that it has only three alternatives to obtaining a variance, “and these options are illegal, infeasible or potentially unsafe.” Petition at 23. First, it could combust all of the noncompliant fuel at the Facilities prior to January 1, 2017. Exelon explains, however, that it is legally prohibited from doing so; it could only burn all of the fuel if it operated the Emergency Equipment far in excess of the amount of time authorized under applicable federal regulations and the Facilities’ FESOPs. Petition at 23. In addition, the energy generated by such operation would be unnecessary in the absence of an emergency. Petition at 23-24.

23. Second, Exelon could attempt to dilute the fuel until it is at or below 15ppm sulfur content. Exelon indicates though that “[d]ilution is impractical.” It occurs slowly, particularly in light of the “limited fuel throughput and limited usage of the Emergency Equipment.” Petition at 4, 23.

24. Finally, Exelon could drain all of the pertinent tanks and replace the contents with 15 ppm fuel. Exelon explains, however, that “it is logistically very difficult and potentially unsafe to drain and replace the contents of all of the diesel fuel storage tanks in the short time frame necessary to meet the January 2017 deadline.” Petition at 9. As described above, if the minimum seven-day fuel supply is not maintained, the Facilities may not be able to meet their

“availability” and operability requirements, and if the required inventory is not restored within seven days, the Facilities would be required to shut down the affected nuclear reactor. Petition at 9, 24.

25. Exelon also argues that draining the tanks requires extensive planning and commitment, due in part to the location of the tanks within the Facilities’ security fences. Petition at 24. Any fuel trucks will be subject to extensive inspections, which may take up to two hours per truck. Petition at 10. This could be a lengthy process, as up to 20 trucks may be needed to drain and refill a single tank, depending on the tank size. Petition at 10.

26. Exelon indicates that the “worst case environmental impact” of the variance is less than two additional tons of SO₂ emissions. Petition at 25. Exelon argues that removing and recycling the noncompliant fuel will likely have a greater environmental impact because the recycled fuel will likely be sold and burned elsewhere and because emissions from the approximately 260 tanker trucks needed to drain and replace the fuel will generate approximately 1.25 lbs of SO₂, 759.54 lbs of NO_x, and 19.31 lbs of PM₁₀. Further, Exelon indicates that moving over 707,000 gallons of fuel greatly increases the risk of a fuel spill. Petition at 25.

27. Exelon estimates that it will cost approximately \$3.95 million to comply with the distillate fuel sulfur content limitation by the compliance deadline. Exelon argues that, since granting the variance will result in little environmental impact, “it is arbitrary and unreasonable to force [Exelon] to incur [those costs], while simultaneously jeopardizing nuclear safety readiness.” Petition at 25.

28. Based on the information currently available to it and its level of expertise, the Illinois EPA does not disagree with the cost estimates provided in Table 9 of the Petition. Per the information in Table 9, over half of Exelon’s \$3.95 million cost estimate will be incurred

regardless of whether the variance is granted; however, Exelon indicates that the variance will allow it to achieve compliance at the Byron and Dresden Stations through dilution over the term of the variance and thereby avoid approximately \$1.75 million in expenditures. Petition at 35.

29. The Illinois EPA does not believe that any injury to the public or environment will result from granting the variance. None of the Facilities are located in an SO₂ nonattainment area, and the estimated SO₂ emissions increase is extremely unlikely to impact an SO₂ nonattainment area. Further, the Illinois EPA has examined the locations of these Facilities in comparison to areas currently being investigated and modeled for future area designation recommendations, and found that there is no overlap; the Agency therefore does not believe that the Facilities will impact potential future nonattainment areas.

VII. CONSISTENCY WITH FEDERAL LAW

30. Pursuant to Section 35 of the Act and Section 104.208(a) of the Board's rules, all petitions for variances from the Board's air regulations must be consistent with the Clean Air Act (CAA) and related federal regulations. 415 ILCS 5/35 and 35 Ill. Adm. Code 104.208(a).

31. Exelon states that the requested variance satisfies this requirement. Petition at 26. It indicates that the variance will not violate the NSPS or NESHAP provisions applicable to the Emergency Equipment because such federal regulations allow the use of existing stores of noncompliant fuel. Petition at 26.

32. Exelon also states that none of the Facilities are located in or near existing SO₂ nonattainment areas. Petition at 26.

33. On March 2, 2016, the Illinois EPA submitted Section 214.161(b)(2), along with several other provisions, to USEPA as part of its State Implementation Plan ("SIP") for the 2010 SO₂ National Ambient Air Quality Standard ("NAAQS"). While USEPA has not yet approved

the Agency's SIP submittal, the Agency anticipates that approval is forthcoming. Therefore, the Agency will submit to USEPA any variance granted by the Board for approval as a SIP revision.

34. The Illinois EPA has conferred with USEPA regarding Exelon's requested relief. USEPA indicated it has no reason to believe that this variance would threaten violations of the SO₂ NAAQS, which would be the primary criterion for approvability.

VIII. COMPLIANCE PLAN

35. Pursuant to Section 104.204(f) of the Board's rules, the petitioner is required to present a detailed compliance plan in the petition for variance. 35 Ill. Adm. Code 104.204(f).

36. Exelon's proposes the following compliance plan: 1) Upon issuance of the variance, the sulfur content of all diesel fuel purchased for use by the Emergency Equipment at the Facilities must not exceed 15 ppm; 2) The sulfur content of all diesel fuel used by the Emergency Equipment during the term of the variance must not exceed 250 ppm; 3) Exelon must maintain records demonstrating compliance with the variance conditions, retain the records for at least 5 years, provide copies of the records to the Agency within 30 days of a request, and notify the Agency of any deviations from the variance conditions; and 4) Once the relevant variance period ends, Exelon must comply with the 15 ppm limitation set forth in Section 214.161(b)(2).

IX. RECOMMENDATION AND CONCLUSION

37. Section 37(a) of the Act and Section 104.216(b)(11) of the Board's rules require that Illinois EPA make a recommendation to the Board as to the disposition of the petition. 415 ILCS 5/37(a) and 35 Ill. Adm. Code 104.216(b)(11). The burden of proof in a variance proceeding is on the petitioner to demonstrate that compliance with the rule or regulation would impose an arbitrary or unreasonable hardship. *See* 415 ILCS 5/35(a) and 35 Ill. Adm. Code 104.238.

38. For the reasons set forth above, the Illinois EPA has no objection to the Board granting Exelon's Petition as specified in this Recommendation.

39. The Agency attaches an affidavit pursuant to 35 Ill. Adm. Code 104.216(b)(12).

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Assistant Counsel

DATED: July 5, 2016

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AFFIDAVIT

I, David Bloomberg, under oath, depose and state as follows:

1. I am the Manager of the Air Quality Planning Section in the Bureau of Air at the Illinois Environmental Protection Agency ("Illinois EPA").
2. All facts outside the record that are referenced in the Illinois EPA's Recommendation are true and correct to the best of my knowledge.

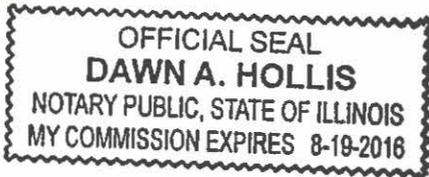


 David Bloomberg

SUBSCRIBED and SWORN to
before me this 5th day
of July, 2016.



 NOTARY PUBLIC



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CERTIFICATE OF SERVICE

I, the undersigned, an attorney, affirm that I have served the attached Appearance and Recommendation of the Illinois Environmental Protection Agency upon the following person(s) by e-mailing it to the e-mail address(es) indicated below:

Bradley Halloran, Hearing Officer
Illinois Pollution Control Board
brad.halloran@illinois.gov

Byron F. Taylor
Katharine F. Newman
SIDLEY AUSTIN LLP
bftaylor@sidley.com
knewman@sidley.com

I affirm that my e-mail address is dana.vetterhoffer@illinois.gov; the number of pages in the e-mail transmission is 15; and the e-mail transmission took place today before 5:00 p.m.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Assistant Counsel

DATED: July 5, 2016

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