

BEFORE THE DEPARTMENT OF NATURAL RESOURCES

In the matter of the Air Pollution Control
Construction Permit No. 21-JAM-212,
authorizing construction of a combined-cycle
combustion turbine and associated support
equipment to be located in Superior, Douglas
County, Wisconsin.

Case No. DNR-23-



Petition for a Contested Case Hearing Pursuant to Wis. Stat. §§ 227.42-.50, 285.81.

To: Secretary Adam Payne
Wisconsin Department of Natural Resources
101 S. Webster Street
P.O. Box 7921
Madison, WI 53707

Hand Delivered
3:45pm
ALL
WI DEPT. OF
NATURAL RESOURCES
OCT 18 2023
OFFICE OF THE
SECRETARY

To the Department of Natural Resources (“DNR”):

1. Sierra Club, on its own behalf and on behalf of their thousands of members in Wisconsin (“Petitioner”), hereby request that the DNR grant and conduct a contested case hearing under Wis. Stat. §§ 227.42-227.50 and Wis. Stat. § 285.81.

2. The agency action or inaction that is the basis for the request for a hearing is the DNR’s determination to issue Air Pollution Control Operation Permit 21-JAM-212 for the construction and initial operation of a combined-cycle combustion turbine and associated pollution sources, referred to as the Nemadji Trail Energy Center (“NTEC”), dated September 19, 2023 (the “Permit”).

3. The issues to be reviewed are whether the Permit and the DNR’s decision to grant the Permits comply with Wis. Stat. §§ 1.11, 227.10-227.30, and 285.60-285.65, and the Departments’ implementing administrative rules, for the reasons set forth below.

4. Petitioner's substantial interests injured or threatened with injury by the DNR's action or inaction in this case are their procedural rights to participate in environmental impact assessment and rulemaking processes as well as their members' health, welfare and enjoyment and use of property injured or threatened with injury by the air pollution that will be created by the pollution sources permitted by the DNR's actions. Sierra Club members live, work, and recreate downwind from the facility. Air pollution from the NTEC will impact the health and welfare of those Sierra Club members. If the DNR corrects the errors in the Permit and either denies the Permit or modifies the Permit to comply with applicable law, the combined-cycle plant will emit fewer pollutants, which in turn will produce cleaner air breathed by Sierra Club members. In addition, correcting the procedural errors will provide Sierra Club and its members with the environmental analysis and rulemaking processes required by law and in which they plan to participate.

5. There is no evidence of legislative intent that Sierra Club and its members' interests are not to be protected. To the contrary, the federal Clean Air Act and the Wisconsin statutes implementing air protections in Wis. Stat. ch. 285 include protections for public health as well as important public participation requirements specifically to protect the interest in healthy air that Sierra Club and its members seek to protect. In addition, the plain language of Wis. Stat. § 285.81 provides an absolute right to a contested case hearing for any member of the public who submitted public comments regarding the air permit, which Sierra Club did. A copy of those comments is available in DNR's database at https://apps.dnr.wi.gov/warp_ext/AM_DownloadObject.aspx?id=1091736. Sierra Club is

therefore entitled to a hearing as a matter of right pursuant to both Wis. Stat. §§ 227.42-.50 and 285.81.

6. The injury to Petitioner and its members is different in kind or degree from injury to the general public caused by issuance of the Permit because Petitioner's members live, travel to, and recreate near the NTEC. Petitioner's members thus have a particularly direct and unique interest in the physical environment that is affected by DNR's action.

7. There are material disputes of fact and law warranting a hearing, including the following:

a. Whether DNR complied with Wis. Stat. § 1.11 and Wis. Admin. Code ch. NR 150.

Wisconsin's Environmental Protection Act ("WEPA"), Wis. Stat. §1.11, requires DNR to "[i]nclude in every recommendation or report on proposals for... major actions significantly affecting the quality of the human environment, a detailed statement, substantially following the guidelines issued by the United States council on environmental quality under P.L. 91-190, 42 USC 4331...." Wis. Stat. § 1.11(2)(c).¹ Each such report must contain minimum contents as set forth in WEPA as well as regulations of the Council on Environmental Quality ("CEQ"), which are adopted by reference in Wisconsin law. Wis. Stat. § 1.11(2)(c). Those CEQ regulations direct that agencies "*shall* prepare supplements to either draft or final environmental impact statements if...[t]here are significant new circumstances or information relevant to

¹ This reference is to the version of the Council on Environmental Quality's rules in effect when the Wisconsin Legislature adopted WEPA, in 1972. Reference to any future revisions would be unconstitutional. *See e.g.*, 68 Wis. Op. Atty. Gen. 9, 15.

environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(d) (emphasis added).²

In the Public Notice seeking comments on the then-proposed permit, DNR stated that, “[t]he final environmental impact statement (‘FEIS’) for the project was jointly prepared by the department and Public Service Commission of Wisconsin.” The FEIS originally prepared by the PSC, which DNR’s notice claims was jointly prepared by DNR, was issued in September 2019. Since that date there have been significant developments with respect to the availability and cost of generation alternatives, including combined solar-battery and wind-battery resources. Moreover, in October 2019, Governor Evers issued Executive Order 52, establishing the Governor’s Task Force on Climate Change. That Task Force issued its initial report in December 2020.³ The United States Department of Agriculture also issued a Supplemental Environmental Assessment relating to the facility in July 2023. However, DNR failed to determine, consistent with 40 C.F.R. § 1507.3 (as required by federal regulations, § 1502.9(d)(4), incorporated into Wis. Stat. § 1.11(2)(c)), whether a supplemental EIS was required on the basis of information contained in these documents. DNR also failed to solicit comments on the 2019 FEIS prior to issuing the Permit, instead presenting it as final and definitive in its Public Notice with respect to the Draft Permit. Each of those actions and inactions constitutes a violation of WEPA.

² To the extent Wis. Admin. Code ch. NR 150’s omission of explicit requirements for a supplement is substantive, DNR’s rules violate Wis. Stat. § 1.11’s requirement to implement the CEQ regulations, which require supplements to a EIS. This petition constitutes Sierra Club attempt to “duly challenge” that omission, if necessary, to the extent required by Wis. Stat. § 227.40(2)(e).

³ *Available at*

<https://climatechange.wi.gov/Documents/Final%20Report/GovernorsTaskForceonClimateChangeReport-LowRes.pdf>

Even if no supplemental EIS were required, the 2019 FEIS was inadequate. Every environmental impact statement must contain an adequate investigation and discussion of “[a]ny adverse environmental effects which cannot be avoided should the proposal be implemented,” and “[a]lternatives to the proposed action.” Wis. Stat. § 1.11(2). DNR has interpreted these provisions to require, *inter alia*, “a list of reasonable alternatives to the proposed project, particularly those that might avoid all or some of the adverse environmental effects of the project...and an explanation of the criteria used to discard certain alternatives from additional study,” and “[a]n evaluation of the...secondary and cumulative effects of the proposed project..., including [c]onsistency with plans or policies of local, state, federal, or tribal governments.” Wis. Admin. Code § NR 150.30(2). The PSC’s 2019 FEIS referenced in DNR’s notice contains neither of these required elements and DNR’s reliance on the 2019 FEIS in issuing the Permit therefore also violates WEPA.

- b. Whether the permit contains adequate emission limits, monitoring, and other requirements and DNR correctly determined that emissions from the facility will cause or contribute to air pollution in excess of the National Ambient Air Quality Standard (NAAQS) for nitrogen oxides pursuant to Wis. Stat. §§ 285.63, 285.65.*

The Permit does not ensure protection of ambient air quality. DNR may not approve the NTEC permit unless the source will not cause or exacerbate a violation of any air quality standard or ambient air increment under Wis. Stat. § 285.21(1) or (2). Those ambient air quality standards include 0.100 ppm (188 ug/m³) primary 1-hour average concentration of nitrogen dioxide (NO_x) and 35 ug/m³ of particulate matter smaller than 2.5 microns (PM_{2.5}), as set forth in Wis. Admin. Code §§ NR 404.04(6)(a)2., 404.04(9)(am)1. DNR conducted air dispersion modeling that purported to find that the total impact from NTEC plus background pollution would cause concentrations of 183.1 ug/m³—97.4 % of the ambient air standard of 188.0 ug/m³

(0.100 ppm)—for NO_x and 28.3 ug/m³—80.9% of the ambient standard of 35 ug/m³—for PM_{2.5}. However, that analysis relied on several incorrect or unsupported assumptions that under-estimate the impact of NTEC's emissions on air quality. Those incorrect and/or unsupported assumptions include (but not necessarily limited to) unjustifiable assumptions about background conditions, nearby source emissions, permitted emission rates, and operating conditions; DNR also failed to include all emission sources in the analysis. Those assumptions individually, and cumulatively, has the effect of understating the ambient concentration of pollutants as a result of NTEC's operation at permitted limits.

One of the errors and unjustified assumptions relates to the assumed emissions during startup and shutdown. The Permit exempts emissions during startup and shutdown from otherwise-applicable BACT limit and, instead, imposes other limits for startups and shutdown that are expressed as pound of pollutant per startup or shutdown event. However, there is no time period provided by the permit for the length of any particular startup or shutdown. The application states that a cold startup will last up to 105 minutes, warm startups will last up to 70 minutes, hot startups will last up to 29 minutes, and shutdown could last up to 25 minutes. Therefore, the emissions permitted per startup or shutdown could occur during only a partial hour or over an hour and forty-five minutes. The permit limits emissions of NO_x to 335 pounds per startup and 59 pounds per shutdown on gas and 860 pounds per startup and 108 pounds per shutdown when burning oil. Those emissions can occur in as few as 29 minutes, after which the units will continue to emit—resulting in hourly emissions greater than 335 or 860 pounds in a hour involving a startup. However, for purposes of modeling the air pollution impact of the NTEC plant, the Applicant and DNR assumed that NO_x emissions would *never exceed* 510

pounds per hour during startup when burning oil or 200 pounds per hour when burning gas when determining the maximum 1-hour NO_x air quality impact.⁴ Thus, the Permit allows the facility to emit more than the maximum emission rate DNR assumed during any one-hour period. Where modeling analysis for short-term ambient air standards, like the 1-hour NO_x standard, assumes a maximum emission rate based on a 1-hour period, the permitting authority (DNR) is to ensure that the permit limits emissions averaged over the same or shorter period. *In re Mississippi Lime*, 15 E.A.D. 349, 380 (EAB 2011). Without limits expressed on an emissions-per-hour basis during all periods, including startup and shutdown, consistent with what DNR assumed for its modeling, the limits incorporated into the PSD modeling do not ensure against violations of air quality standards.

- c. *Whether DNR's decision to issue the Permit relied on formal policies that it was required, but failed, to adopt as rules, which violates Wisconsin law.*

When issuing the NTEC permit, DNR relied on two “guidance” documents: (1) Guidance on Background Concentrations; and (2) Wisconsin Air Dispersion Modeling Guidelines. Each of those documents constitutes a “statement of general policy,” and/or an “interpretation of a statute,” and also meets the definition of a “rule” in Wis. Stat. § 227.01(13). DNR was required to adopt those policies as rules before it can lawfully rely on them to issue the permit. Wis. Stat. §§ 227.10-227.30.

Contrary to the “guidance” label, both the Guidance on Background Concentrations and Wisconsin Modeling Guidelines are statements of general policy and interpretations of the statutes under Wis. Stat. § 227.10(1) and otherwise constitute “rules” under Wis. Stat. §

⁴ See Application, Appendix C; Preliminary Determination at 113.

227.01(13). See e.g., *Wisconsin Electric Power Co. v. DNR*, 93 Wis. 2d 222, 233-35, 287 N.W.2d 113 (1980); *Frankenthal v. Wis. Real Estate Examiner Board*, 3 Wis. 2d 249, 257b (1958) (holding that a mimeographed instruction sheet used as the basis to approve or deny licenses has the effect of law). Because DNR has not adopted either “Guidance” document through rulemaking, as required by Wis. Stat. §§ 227.10-227.30. DNR’s reliance on both documents when issuing the NTEC permit was a legal error.

i. DNR’s Guidance on Background Concentrations is an unpromulgated rule

Applicants for major source construction permits must provide “air quality monitoring data gathered for purposes of determining whether emissions of that air contaminant would cause or contribute to a violation of the standard.” Wis. Admin. Code § NR 405.11(1)(c). To the extent DNR and the applicant rely on ambient air monitoring data from regional monitors—rather than those sited specifically for the permit application—DNR must determine that the regional monitors reflect a site that “is impacted by similar or adequately representative sources” at the permitted facility. 40 C.F.R. Part 51, Appendix W § 8.3.2(b), incorporated by reference at Wis. Admin. Code § NR 405.10(1). DNR purports to have made all of those findings for all potential permittees, statewide, as a matter of policy through a document DNR refers to as its “Guidance on Background Concentrations.”⁵ The Guidance on Background Concentrations establishes two sets of “background” concentrations—a “High Value” and “Low Value”—that apply uniformly to all permits, for all air pollution sources in the state. Selection of one set of values or the other depends on whether the permitted facility is located in a city or village of more

⁵ See e.g., <https://dnr.wisconsin.gov/sites/default/files/topic/AirPermits/2021BackgroundConcentrations.pdf>

than 25,000 plus certain adjacent municipalities. The entire policy set forth in the Guidance on Background Concentrations, including dividing the state into two categories, assigning existing monitors based on population, and choosing the specific monitors to assign to each category, constitutes a general policy within the meaning of Wis. Stat. § 227.10(1) as well as a rule as defined by Wis. Stat. § 227.01(13).

ii. DNR's Wisconsin Modeling Guidelines is an unpromulgated rule

DNR also applied its “Wisconsin Modeling Guideline” as an unpromulgated rule. In issuing the permit, DNR excluded emissions from the 1,490-hp diesel generator, which is authorized under the Permit to operate up to 500 hours per year, from its analysis of air pollution impacts. In response to comments asking DNR to include the generator’s emissions in DNR’s air pollution modeling, DNR pointed to the Wisconsin Modeling Guideline’s provision that, “if a facility proposes permit conditions for a given emission unit consistent with intermittent operation, that emission does not have to be included in the dispersion modeling analysis”⁶ as justifying its exclusion of the emergency generator’s emissions. That constitutes a general policy within the meaning of Wis. Stat. § 227.10(1) as well as a rule as defined by Wis. Stat. § 227.01(13).

Because the DNR did not promulgate either policy pursuant to the mandatory rulemaking procedures, DNR’s reliance on them to issue the Permit constitutes a legal error.⁷

⁶ Wisconsin Modeling Guideline, March 2018, available at <https://widnr.widen.net/view/pdf/gnggfzcxbp/AM528.pdf?t.download=true>, at 9.

⁷ To the extent Wis. Stat. § 227.40(2)(e) requires Sierra Club to “duly challenge” the validity of the background concentration document or modeling guideline document as “a rule or guidance document” in order to preserve for judicial review, Sierra Club does so here.

- d. Whether the Applicants have provided all information necessary to perform impact analyses and make “best available control technology” determinations as required by Wis. Admin. Code § NR 405.12.*

Under Wisconsin law, the “owner or operator of a proposed major source...shall submit all information necessary to perform any analysis or make any determination required” as part of the PSD permitting process, including “a description of the...design capacity, and typical operating schedule of the major source..., including specifications and drawings showing its design and plant layout,” and “any other information as necessary to determine that best available control technology as applicable would be applied.” Wis. Admin. Code § NR 405.12(2).

DNR cites information from the Applicant’s purported equipment vendor and modeling of the equipment with “Epsilon Professional thermal modeling performance software” as the basis for certain findings by DNR with respect to achievable emission limits and other determinations necessary for DNR to issue the Permit. However, details about the equipment do not appear in the publicly available information submitted by the Applicants. Additionally, there are discrepancies between the Applicants’ claims and publicly available information about the turbine equipment. Contrary to DNR’s assertion that those details are not relevant because the permit does not limit the gross megawatts of production, the size, rating, and capability of the generating equipment are directly used for certain calculations DNR made, and are directly related to the efficiency, heat input, flue gas temperature, flue gas exhaust rate, and other factors necessary for DNR’s analysis of the plant’s pollution impact. Failure of the Applicant to submit all relevant data as well as DNR’s failure to provide those data as part of the public review and comment process make the DNR’s permit action unlawful. Moreover, DNR’s reliance on unsubstantiated and inconsistent descriptions of the Applicants’ equipment also makes DNR’s decision to issue the Permit erroneous.

- e. *Whether the Permit incorporates limits for pollutants that reflect the best available control technology as required by Wis. Stat. § 285.63(3)(a).*

Every new and modified major source of air pollution, including the combined-cycle plant and other emission sources permitted by the DNR in this case, must be subject to stringent pollution limits reflecting “best available control technology” or BACT. Wis. Admin. Code § NR 405.08. BACT is an emission limit “based on the maximum degree of reduction for each air contaminant subject to regulation under the Act... which the department, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems and techniques... for control of the air contaminant. In no event may application of best available control technology result in emissions of any air contaminant which would exceed the emissions allowed... under sections 111 and 112 of the Act (42 USC 7411 and 7412).” Wis. Admin. Code § NR 405.02(7). That is, a BACT limit must be a facility-specific limit based on the maximum emission reduction achievable, taking into account specific factors, *and* which is no less stringent than the emission reductions required by 42 U.S.C. § 7411. Air contaminants for which a permit must incorporate BACT limits include sulfur oxides, particulate matter, carbon monoxide, nitrogen oxides, lead, volatile organic compounds (as precursors to ozone), and greenhouse gases.⁸

Although BACT is determined on a case-by-case basis, prior BACT limits and underlying pollution control options used at similar facilities creates a presumptive, rebuttable, floor,

⁸ EPA designates such air contaminants pursuant to 42 U.S.C. § 7408. *See* 40 C.F.R. § 52.21(b)(23) (setting for levels of significant emissions for each “air contaminant subject to regulation under the Act” except GHGs), *id.* §52.21(b)(49) (defining “subject to regulation” and describing “anyway” rule and significance for GHGs).

requiring the Applicant and DNR “to consider or document whether that same emissions limit can be achieved at [the] proposed facility” and specifically justify setting a higher emission limit. *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 2006 WL 3073109, *37 (EPA 2006); see also *In re Mississippi Lime*, 15 E.A.D. at 371-73 (setting a limit higher than what emission data from similar sources show is achievable must be based on a sufficient justification and data).

Several of the limits DNR adopts in the permit are higher than emissions levels imposed on, and achieved by, similar facilities. DNR has failed to document why these emission limits cannot be achieved at the combined-cycle plant for which the Permit was issued.

i. Greenhouse gas emissions

The Permit’s limit for greenhouse gas emissions from the combined-cycle turbine is 850 lb/MWh (gross). This limit is unsupported by any technical analysis of the emissions achievable by the proposed turbine and exceeds emission levels at multiple facilities utilizing the same type of combined-cycle generation technology. The 850 lb/MWh (gross) limit reflects both legal and factual errors and does not constitute BACT.

Moreover, the 850 lb/MWh limit does not account for the requirement that BACT must be no greater than any applicable standard under section 111 of the Clean Air Act, 42 U.S.C. 7411. Wis. Admin. Code § NR 405.02(7). Pursuant to section 111, any facility that commences construction after the EPA *proposes* a performance standard must comply with that standard. EPA proposed a new performance standard on May 23, 2023. 88 Fed. Reg. 33240 (May 23, 2023). While the standard has not been finalized, NTEC must comply with it because it did not commence construction prior to May 23, 2023. The BACT limit in the Permit does not

acknowledge, much less ensure, that the emission limits in the permit are at least as stringent as those standards.

ii. Particulate Matter

The Permit's limits for particulate matter emissions from the combined-cycle turbine vary depending on whether the turbine is burning natural gas or diesel fuel oil, and whether operation includes duct firing or not. The lowest level is for burning natural gas without duct firing, and the limit is 0.0047 lb/mmBtu. With duct burners, the limit for natural gas operation increases to 0.0078 lb/mmBtu. This is higher than the emissions level of at least one combined-cycle plant operating on natural gas, the Indeck-Niles combined-cycle plant in Michigan, which has a limit of 0.0058 lb/mmBtu or 19.8 lb/hr when operating on natural gas with duct burners. DNR failed to explain why the Facility cannot achieve the same or lower level of particulate matter emissions. DNR has not identified what energy, environmental, and/or economic impacts justify its adoption of a higher emission rate, making the current emission limits for PM arbitrary and unlawful.

iii. Sulfuric acid mist

The Permit's limit for sulfuric acid mist emissions from the combined-cycle turbine vary depending on whether the turbine is burning natural gas or diesel fuel oil, and whether the operation includes duct firing or not. When operating on natural gas, with duct firing, the limit is 9.9 lb/hr of sulfuric acid mist. This is higher than at least one larger combined-cycle facility (a 2x1 CCGT configuration with combined nameplate capacity of 1275 MW) in West Virginia, and a smaller combined-cycle turbine (250-MW) in New Jersey, which have limits of 4.28 lb/hr and 3.45 lb/hr, respectively. DNR failed to explain why the Facility cannot achieve the same or lower

level of sulfuric acid mist emissions, instead relying on the existence of facilities older than either the West Virginia or New Jersey combined-cycle turbines with higher limits than the Permit. The limits for sulfuric acid mist reflect both legal and factual errors and are unlawful.

iv. VOC and carbon monoxide

The permit incorporates emission limits for carbon monoxide and volatile organic compounds from the combined-cycle turbine based on an averaging period of 168 hours, or 7 days. Federal regulations require that emission limits adopted by BACT “be based on concentration estimates for the averaging time that results in the most stringent control requirements.” 40 C.F.R. Part 51, App. W, § 10.2.3.1.a. DNR must justify BACT emission limits based on what has been permitted and what has been achieved in practice at similar emission units, not based on the Applicant’s preferences. Yet, DNR claims that an averaging period for carbon monoxide and volatile organic compounds longer than provided in permits for other similar facilities is needed because the Applicant requested longer periods. DNR did not explain why the longer averaging periods provided in the Permit are consistent with the requirement for BACT. The emission limits for carbon monoxide and volatile organic compounds in the Permit are arbitrary and unlawful.

v. Startup and shutdown

The Permit includes secondary or alternative limits for periods of start-up and shutdown that allow the facility to emit carbon monoxide, nitrogen oxides, and volatile organic compounds at higher rates during these periods than at other times. DNR has adopted limits that are significantly higher than those imposed on similar facilities. DNR has not identified what energy, environmental, and/or economic impacts justify its adoption of a higher emission levels than

what is achievable by similar combined-cycle turbines, making the current emission limits for carbon monoxide, volatile organic compounds, and nitrogen oxides during start-up and shutdown unlawful. DNR relies on unspecified “business needs” of the Applicant in selecting the chosen turbine as the basis for these standards, but does not explain why the chosen control technologies, combustion practices and limiting startup and shutdown, cannot reduce emissions further. These secondary or alternative limits therefore incorporate both legal and factual errors and should be revised.

Moreover, DNR determined that the best available control technology for all startup and shutdown emissions (including carbon monoxide, volatile organic compounds, nitrogen oxides, and particulate matter) includes “limiting startup and shutdown time.” The selected limit was 1,525 hours total of start-up plus shut down time in any consecutive 12-month period and total emissions during each startup or shutdown. DNR reports that the Applicant sought such lax limits because “[o]ne of the main reasons that NTEC is being proposed is for its ability to operate when intermittent energy sources...are not generating electricity.” But the need to startup and shutdown is not limited to NTEC and is also true of other facilities that have more stringent emission limits during startup and shutdown. Nor is the need for frequent startups and shutdowns a basis for a lack of averaging period or limit on the length of time a startup can occur. The Permit’s BACT limits for startup and shutdown emissions reflects both legal and factual errors and are unlawful.

f. Whether BACT for VOC and greenhouse gases should be based on low-leaking valves.

NTEC will emit volatile organic compounds (VOCs) and greenhouse gases from leaks from natural gas and fuel oil piping components. DNR identified low-leaking valves as a feasible control technology to reduce those fugitive emissions, but rejected that technology as not

economically feasible on the basis that the cost per ton of greenhouse gas emissions exceeds the cost per ton of carbon credits in the California cap and trade program. However, the cost of carbon credits in California is not the exclusive measure of cost-effectiveness. Instead, DNR may only determine a control not cost-effective if the cost per ton exceeds the cost of the same control at a similar facility. DNR has not identified any difference in the cost of using low-leaking valves at NTEC compared to other facilities utilizing that technology to reduce fugitive emissions.

Therefore, DNR incorrectly rejected low-leak valves as BACT.

- g. Whether DNR improperly rejected alternatives to sulfur hexafluoride for use in the low-side generator circuit breakers.*

NTEC will emit sulfur hexafluoride, a greenhouse gas, from circuit breakers. The Department identified substituting a non-greenhouse gas substance for sulfur hexafluoride as a control technology, but excluded it as infeasible based on studies the Applicant provided from 2003, 2013, and 2015. However, more recent studies by EPA have characterized alternatives to sulfur hexafluoride as “readily available.” The Department’s failure to utilize current knowledge about alternatives to incorrectly reject non-greenhouse gas substances from its BACT analysis was in error.

- h. Whether more restrictive limits on the use of diesel fuel oil would redefine the nature of the source.*

The Department identifies the use of “low-carbon fuel (e.g. natural gas)” as a control technology for greenhouse gas emissions. However, the Permit allows the use of a *non*-low-carbon fuel, diesel fuel oil, for 6 percent of the *potential* operating hours of the unit. Because the facility is unlikely to operate during all of its potential operating hours, it is permitted to operate on diesel fuel oil for more than 6% of *actual* operating hours. The Permit rejected restrictions that would limit the use of diesel fuel oil to emergency situations because this “would fundamentally

redefine the nature of the source proposed by the applicant.” “Redefining the source” is a term of art originating in a United States Environmental Protection Agency (EPA) guidance document that refers to an exercise of discretion, rather than to a bright-line prohibition. *In re Desert Rock*, 14 E.A.D. 484, 526-27 (2009). In general, it allows a permitting agency to exercise discretion not to consider a pollution control option that would change aspects of facility design that are inherent for the applicant’s “purpose or objective” for the proposed facility. *Id.* at 531. However, as described by the applicant, “The combustion turbine will combust fuel oil when natural gas is unavailable due to limited availability and/or curtailment.”⁹ That is, during emergencies. Department erroneously concluded that NTEC cannot fulfill its stated business purpose if use of diesel oil is limited to emergency conditions—when gas is unavailable or curtailed—rather than allowed for any purpose up to 6 percent of potential operating hours. The Department’s rejection of limiting diesel fuel oil operation to only those instances when gas is unavailable or curtailed was therefore legal error.

i. Whether the 42-month term of the permit is unreasonably long.

Wisconsin law provides that the default term of any “authorization to construct...a stationary source” is 18 months. Wis. Stat. § 285.66(1). Section NR 405.08(4) also requires that a new BACT review be conducted at the latest reasonable time at least 18 months before construction. Federal regulations, moreover, recognize that “approval to construct” “shall become invalid if construction is not commenced within 18 months after receipt of such approval.” 40 C.F.R. § 52.21(r). The point of each of those provisions is that permit analyses, and particularly the BACT determination, are snapshots in time and becomes stale. BACT limits are technology-driving and

⁹ Application at 2-2.

become progressively more stringent over time. Ambient air quality standards also become more stringent over time. Facilities are expected to commence construction shortly after a permit issues, rather than sitting on a permit for an extended period of time during which the BACT determination and air quality review become outdated. In fact, the NTEC facility received approval to construct from the Public Service Commission nearly 4 years ago and apparently has not yet obtained the funding or other approvals necessary to begin construction. The Permit, however, purports to remain valid for at least 42 months from the date of issuance without any requirement that the facility commence construction or obtain a refreshed BACT analysis. That is nearly eight years after the Public Service Commission approval. That omission is unreasonable.

8. Sierra Club seeks the following relief:

- a. Grant Sierra Club's request for a contested case hearing and immediately refer the case to an Administrative Law Judge for hearing.
- b. Immediately stay the Permit pending the final contested case hearing decision.
- c. Order the Permit withdrawn and/or revoked.

9. The statute or administrative rule other than Wis. Stat. § 227.42 that affords a right to a hearing is Wis. Stat. § 285.81.

Dated: October 18, 2023

EARTHJUSTICE



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**Motion for Admission Pro Hac Vice forthcoming*

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