IN RE CARDINAL FG COMPANY

PSD Appeal No. 04-04

ORDER DENYING REVIEW

Decided March 22, 2005

Syllabus

Olympia and Vicinity Building and Construction Trades Council ("OBCT") filed a petition ("Petition") seeking review of certain conditions of a Clean Air Act prevention of significant deterioration ("PSD") permit decision, No. PSD-03-03 (the "Permit"), issued by the State of Washington Department of Ecology ("WDOE"). The Permit would authorize Cardinal FG Company ("Cardinal") to construct a 650 ton per day flat glass production plant near Chehalis, Washington. Cardinal proposes to use a process known as the float process to produce flat glass.

In making its permitting decision, WDOE concluded that the best available control technology, or "BACT," for controlling nitrogen dioxide ("NO_X") and carbon monoxide ("CO") emissions from the facility's gas furnace is the "3R Process." WDOE rejected "oxy-fuel technology"as BACT, concluding that it is technically infeasible. Based on the 3R Process as BACT, the Permit set the NO_X emissions limit at 7 pounds NO_X per ton glass draw (lb NO_X/T_G, 24-hour average basis), and the CO emissions limit at 6.5 pounds CO per ton glass draw (lb CO/T_G). WDOE also concluded that a "trackmobile" that will be used to move train cars around the grounds of the facility is not subject to review and permitting under the PSD program.

OBCT's Petition objects to the Permit's limits for NO_X and CO from the natural gas-fired furnace, arguing that WDOE improperly concluded that the 3R Process is BACT for this type of facility. Instead, OBCT argues that WDOE should have concluded that oxy-fuel technology is BACT. OBCT argues that oxy-fuel technology is technically feasible because it has been demonstrated by years of operating experience and also that this technology, which has been used on other types of glass production plants, can be transferred to the float process Cardinal will use. OBCT also contends that WDOE should have conducted a cost effectiveness analysis of oxy-fuel. In addition, OBCT argues that, even with the 3R Process selected as BACT, WDOE should have set lower emissions limits for NO_X and CO. With respect to the trackmobile, OBCT argues that WDOE should have conducted a review of the emissions from the trackmobile and required application of BACT. OBCT argues that since the trackmobile is permanently situated at a given location (the track circle) on the Cardinal grounds, it does not qualify as a mobile nonroad engine and is subject to BACT analysis.

Held: Review is denied. OBCT has failed to demonstrate in its Petition that WDOE's permitting decision is clearly erroneous or otherwise warrants review.

(1) OBCT has not shown clear error in WDOE's determination to eliminate oxy-fuel due to concerns regarding its technical feasibility. WDOE explained in its response to comments that the problem of furnace refractory deterioration from oxy-fuel precludes WDOE from finding that oxy-fuel has been operated successfully in a facility producing high-quality flat glass through the float process. WDOE also explained in its response to comments that the problem of refractory deterioration precludes considering oxy-fuel as a technology transfer. This analysis is consistent with an Agency guidance document, which states that "a showing of unresolved technical difficulty with applying the control would constitute a showing of technical infeasibility" and that technology transfer is not appropriate where "significant differences between source types exist that are pertinent to the successful operation of the control device." WDOE's analysis set forth in its response to comments shows careful consideration of both OBCT's comments and the information in the record, and OBCT has failed to demonstrate in its Petition why the information upon which it seeks to rely clearly outweighs the information relied upon by WDOE.

(2) The Board holds that WDOE's determination regarding the issue of technical feasibility was sufficient to eliminate oxy-fuel as BACT without conducting a full cost effectiveness analysis. Because OBCT has not shown any clear error in WDOE's determination that oxy-fuel is not BACT due to questions regarding the technical feasibility of oxy-fuel for WDOE's facility, WDOE was not required to perform a cost effectiveness analysis of oxy-fuel and WDOE did not need to provide such an analysis in response to OBCT's comments on this issue.

(3) The Board concludes that OBCT has not shown clear error in WDOE's decision to set the emissions limits for application of the 3R Process at 7 lb NO_X/T_G and 6.5 lb CO/T_G, rather than the lower limits suggested by OBCT. WDOE explained in its response to comments that no flat glass plant in the U.S. using 3R Process has a lower permit limit than that specified in Cardinal's draft permit. WDOE also explained that there may be a relationship between early furnace failure due to refractory damage from operating the furnace using the 3R Process to obtain NO_X reductions below 7 lb NO_X/T_G. In other decisions, the Board has recognized that PSD permit limits are not necessarily a direct translation of the lowest emissions rate that has been achieved by a particular technology at another facility, but that those limits must also reflect consideration of any practical difficulties associated with using the control technology. OBCT's arguments in the present case pointing out that lower NO_X and CO emissions rates have been achieved at other facilities, therefore, cannot show clear error in WDOE's permitting decision without addressing the practical considerations WDOE identified in its analysis. OBCT has not demonstrated in its Petition any error, much less clear error, in WDOE's rationale for its permitting decision based on the potential for early furnace failure if operated at lower permit limits.

(4) The Board concludes that WDOE correctly determined that the trackmobile is not subject to PSD review because the trackmobile does not fall within the statutory definition of "stationary source" under CAA § 302(z), 42 U.S.C. § 7602(z). The trackmobile does not fall within the statutory definition of "stationary source" because that definition expressly states that emissions directly from a "nonroad vehicle" are not from a stationary source, and WDOE correctly concluded that the trackmobile is a "nonroad vehicle" under CAA § 216(11), 42 U.S.C. § 7550(11). A nonroad vehicle is a vehicle powered by a "nonroad engine." The Board rejects OBCT's contention that an exception to the regulatory definition of "nonroad engine" set forth in paragraph (2)(iii) of the nonroad engine definition in 40 C.F.R. § 89.2, which applies to "portable or transportable" engines that remain in one location for more than a year, requires that the trackmobile be treated as outside the scope of the definition of nonroad engine. OBCT's own description of the trackmobile recognizes that it "will move train cars around the grounds of the Cardinal facility." The

very notion of "moving" around the grounds of the facility is patently inconsistent with the regulation's description of "location" as a "*single site* at a building, structure, facility, or installation." 40 C.F.R. § 89.2 ("nonroad engine" paragraph (2)(iii)) (emphasis added)). Simply stated, OBCT's efforts in this case to construe something that moves around the grounds of the facility as being a "single site" at the facility requires an excessively unnatural and distorted reading of the regulation's plain language.

Moreover, the trackmobile's most important feature — and, indeed, its sole function — is its ability to propel itself and the train cars around the grounds of the Cardinal facility. As previously noted, the exception set forth in section 89.2 ("nonroad engine" paragraph (2)(iii)) can apply only to "portable or transportable" engines. Applying this exception to the trackmobile would eviscerate the regulation's distinction between "self-propelled" engines described in section 89.2 ("nonroad engine paragraph (1)(i)) and "portable or transportable" engines described in section 89.2 ("nonroad engine" paragraph (1)(iii)). The trackmobile is a self-propelled engine and therefore is a "nonroad engine," which means that it is excluded from the statutory definition of stationary source and is not subject to BACT review.

Before Environmental Appeals Judges Edward E. Reich and Kathie A. Stein.

Opinion of the Board by Judge Stein:

Before the Board is a petition seeking review of certain conditions of a prevention of significant deterioration ("PSD") permit decision, No. PSD-03-03 (the "Permit"), issued by the State of Washington Department of Ecology ("WDOE").[1] *See* Final Approval of PSD Application (Oct. 6, 2004) (hereinafter the "Permit"). The Permit would authorize Cardinal FG Company ("Cardinal") to construct a flat glass production plant. Olympia and Vicinity Building and Construction Trades Council ("OBCT") filed the petition for review ("Petition").

For the reasons explained below, we deny review.

[1] WDOE administers the PSD program in the State of Washington pursuant to a delegation of authority from U.S. Environmental Protection Agency, Region 10 (the "Region"). Because WDOE acts as EPA's delegate in implementing the federal PSD program within the State of Washington, the Permit is considered an EPA-issued permit for purposes of federal law, and is subject to review by the Board pursuant to 40 C.F.R. § 124.19. *See Sierra Pac. Indus.*, 11 E.A.D. 1, 2 n.1 (EAB 2003); *In re Hillman Power Co.*, 10 E.A.D. 673, 675 (EAB 2002); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 109 n.1 (EAB 1997); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 765 n.1 (EAB 1997); *In re W. Suburban Recycling & Energy Ctr., L.P.*, 6 E.A.D. 692, 695 n.4 (EAB 1996).

I. *BACKGROUND*

A. *Statutory and Regulatory Background*

Congress enacted the Clean Air Act ("CAA") to "enhance the quality of the Nation's air resources to promote the public health and welfare and productive capacity of its populace." CAA § 101(b)(1), 42 U.S.C. § 7401(b)(1). Among other things, the CAA directs EPA to create a list of those pollutants that pose a danger to public health and welfare and result from numerous or diverse mobile or stationary sources. CAA § 108(a)(1), 42 U.S.C. § 7408(a)(1). The CAA also directs EPA to issue air quality criteria for each pollutant on the list,[2] and to promulgate regulations establishing national ambient air quality standards ("NAAQS") for all criteria pollutants. *See* CAA §§ 108(a)(1), 109(a)(2), 42 U.S.C. §§ 7408(a)(1), 7409(a)(2). The NAAQS are "maximum concentration 'ceilings'" for particular pollutants, "measured in terms of the total concentration of a pollutant in the atmosphere." U.S. EPA Office of Air Quality Planning & Standards, *Draft New Source Review Workshop Manual* at C.3 (Oct. 1990) ("NSR Manual").[3] The Agency has set NAAQS for six criteria pollutants: sulfur oxides,[4]particulate matter,[5] nitrogen dioxide ("NO_2"),[6] carbon monoxide ("CO"), ozone ("O_3"),[7] and lead. *See In re Kendall New Century Dev.*, 11 E.A.D. 40, 43 (EAB 2003).

Congress established the PSD permitting program to regulate air pollution in areas, known as "attainment" areas, where air quality meets or is cleaner than the NAAQS, as well as areas that cannot be classified as "attainment" or "non-attainment" ("unclassifiable" areas). *In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 59 (EAB 1997); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 766-67

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[2] Pollutants for which EPA has established air quality criteria are commonly referred to as "criteria pollutants." 42 U.S.C. § 7408(a)(2).

[3] The Agency has used the NSR Manual as a guidance document in conjunction with new source review workshops and training, and as a guide for permitting officials with respect to PSD requirements and policy. Although it is not accorded the same weight as a binding Agency regulation, the Board has looked to the NSR Manual as a statement of the Agency's thinking on certain PSD issues. *See, e.g., In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 72 n.7 (EAB 1998); *In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 59 n.3 (EAB 1997); *In re Masonite Corp.*, 5 E.A.D. 551, 558 n.8 (EAB 1994).

[4] Sulfur oxides are measured in the air as sulfur dioxide ("SO_2"). 40 C.F.R. § 50.4(c) (2004).

[5] For purposes of determining attainment of the NAAQS, particulate matter is measured in the ambient air as particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers, referred to as PM_{10}. 40 C.F.R. § 50.6(c) (2004).

[6] A facility's compliance with respect to nitrogen dioxide is measured in terms of emissions of any nitrogen oxides ("NO_X"). 40 C.F.R. § 52.21(b)(23) (2004); *In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 69 n.4 (EAB 1998).

[7] A facility's compliance with respect to ozone is measured in terms of emissions of volatile organic compounds ("VOCs"). 40 C.F.R. § 52.21(b)(23)(2004).

(EAB 1997). Among other things, the PSD provisions of the Act require any person planning the construction or modification of any major emitting facility in an attainment area, or in an unclassifiable area, to apply for and receive a PSD permit before beginning construction.[8]

The PSD permitting requirements are pollutant-specific, which means that a facility may emit many air pollutants, but only one or a few may be subject to PSD review. Whether a facility must undergo PSD review depends on a number of factors including the amount of emissions of each pollutant by the facility. NSR Manual at 4. In order to prevent violations of the NAAQS and, generally, to prevent significant deterioration of air quality, the PSD regulations require that new major stationary sources be carefully reviewed prior to construction to ensure that emissions from such facilities will not cause or contribute to an exceedance of either the NAAQS or the applicable PSD ambient air quality "increments." 40 C.F.R. § 52.21(k). A PSD "increment" refers to "the maximum allowable increase in concentration that is allowed to occur above a baseline concentration for a pollutant." NSR Manual at C.3; *see also* 40 C.F.R. § 52.21(c) (establishing increments for regulated pollutants). A central means for preconstruction determination of whether the NAAQS or PSD increment will be exceeded is performing an ambient air quality and source impact analysis, pursuant to the regulatory requirements of 40 C.F.R. § 52.21(k), (l) and (m), as part of the PSD permit review process. *In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 73 (EAB 1998).

Another key component of the PSD regulations is the requirement that new major stationary sources, or major modifications of existing major sources, employ the "best available control technology," or BACT, to control emissions of any PSD-regulated pollutants that the new or modified facility will emit in significant amounts.[9] 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(j). As discussed below, one of the principal contentions OBCT sets forth in its Petition is that WDOE's BACT determination for NO_X and CO emissions from the natural gas-fired furnace at Cardinal's proposed facility is clearly erroneous.

B. *Factual and Procedural Background*

The Permit at issue in this case would authorize Cardinal to build a 650 ton-per-day flat-glass production plant located approximately five miles south of Chehalis, Washington. Permit at 1. The proposed facility is located within a Class

[8] A "major emitting facility" is any of certain listed stationary sources that emit or have the potential to emit 100 tons per year ("tpy") or more of any PSD pollutant, or any other stationary source with the potential to emit at least 250 tpy of any PSD pollutant. CAA § 169(1), 42 U.S.C. § 7479(1).

[9] EPA's PSD regulations identify applicable levels of significance for particular pollutants. 40 C.F.R. § 52.21(b)(23).

II area that is in attainment or unclassified for all pollutants regulated by the NAAQS. *Id.*

The proposed facility will use "float" technology. *See* Technical Supplement Document for Prevention of Significant Deterioration Permit No. PSD-03-03, Cardinal FG Company, Winlock, Washington (hereinafter "TSD"). In the flat-glass manufacturing process, the molten glass is poured onto the surface of a liquid zinc or tin bath in a natural gas-fired furnace and a floating flat-glass ribbon extends the length of the bath to the exit. *Id.* at 3. The formation of the continuous sheet of glass takes place within the furnace. *Id.* A hydrogen and nitrogen atmosphere is maintained inside the bath to prevent tin oxidation. *Id.* The glass ribbon exits the tin bath and enters a roller hearth oven, or lehr, designed to slowly cool the glass ribbon after it exits the float bath. *Id.* Cooling rates are controlled across both the width and length of the lehr. The glass ribbon is transported through the lehr on driven rolls. *Id.* Sulfur dioxide is injected on to the rollers and the top and bottom surfaces of the glass to prevent staining. *Id.* After exiting the lehr, the solidified glass sheet is inspected, cut and trimmed, and packaged. *Id.* Cardinal's proposed facility also includes a "trackmobile" that will be used to move train cars around the grounds of the facility.

Cardinal's proposed facility will produce air emissions from the melting furnace, waste glass return system, raw materials receiving, transport, and mixing operations, the annealing lehr, emergency generator, and glass cutting operations. TSD at 3. The facility will be a new major source, as defined by 40 C.F.R. § 52.21, because it will emit more than 250 tons per year of carbon monoxide (1,187 tpy) and nitrogen oxides (883 tpy). Permit at 2. The facility will emit the following pollutants in amounts greater than the applicable PSD significance levels: NO_X, CO, SO_2, VOCs, and PM_{10}. *Id.*

Cardinal submitted its application for a PSD permit on October 27, 2003. Permit at 1. On January 12, 2004, Cardinal submitted supplementary material. *Id.* WDOE provided notice to the public of the proposed draft permit on or about July 23, 2004, and WDOE held a public hearing on September 2, 2004. Petition at 2. OBCT submitted comments during the public comment period and participated in the public hearing. *Id.* WDOE issued its permitting decision, along with responses to comments, on October 6, 2004. *Id.*; Admin. Rec. Doc. # 21 (Concise Explanatory Statement From the Washington Department of Ecology Air Program Responding to Written and Verbal Public Comments on the Proposed PSD Permit No. 03-03 for Cardinal-Winlock) (hereinafter "Response to Comments"). In making its permitting decision in this matter, WDOE concluded that the trackmobile to be used at the facility is not subject to review and permitting under the PSD program. *See* Response to Comments at 10-11.

The Permit's conditions contain limits for the facility's emissions of NO_X and CO from the glass furnace; emissions of SO_2 from the glass furnace and the

annealing lehr; emissions of PM/PM_{10} from the glass furnace and the material handling operations; and emissions of VOCs from the glass furnace and glass cutting operations. Permit at 3. The Permit's conditions for control of NO_X and CO emissions from the furnace are central to the first issue OBCT raises in this proceeding. Among other things, the Permit provides that NO_X emissions "shall not exceed 7 pounds NO_X per ton glass draw (lb NO_X/T_G, 24-hour average basis), exclusive of operation during furnace burnout-maintenance." Permit at 6. The Permit also provides, among other things, that CO emissions "shall not exceed 6.5 pounds CO per ton glass draw (lb CO/T_G) in any consecutive twelve month period." Permit at 9.

C. *Issues Raised in the Petition*

OBCT's Petition raises issues concerning the Permit's emissions limits for NO_X and CO from the glass furnace and issues concerning WDOE's conclusion that the trackmobile is not subject to review and permitting under the PSD program. Specifically, OBCT objects to the Permit's limits for NO_X and CO from the natural gas-fired furnace, arguing that WDOE improperly concluded that the "3R Process" is BACT for this type of facility. Instead, OBCT argues that WDOE should have concluded that "oxy-fuel technology" is BACT. The 3R Process, or chemical reduction by fuel, is generally based on creating an oxygen-starved condition in critical stages of the combustion process by feeding excess fuel into the furnace. TSD at 13. Oxy-fuel technology, or melting, "involves the replacement of the combustion air with 90% pure oxygen." TSD at 9.

With respect to the trackmobile, OBCT argues that WDOE should have conducted a review of the emissions from the trackmobile and required application of BACT. OBCT argues that "since the trackmobile is permanently situated at a given location (the track circle) on the Cardinal grounds, it does not qualify as a mobile nonroad engine and is subject to BACT analysis." Petition ¶ 26. OBCT also argues that emissions from the trackmobile "could be substantial, depending on the hours of operation and engine size." *Id.* ¶ 30.

Both Cardinal[10] and WDOE have filed responses to OBCT's Petition. *See* State of Washington Department of Ecology Response Opposing Petition for Review (Jan. 7, 2005); Cardinal FG Company's Response to Merits of Petition (Jan. 6, 2005).

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[10] Cardinal filed a motion requesting that it be allowed an opportunity to respond to OBCT's Petition. Recognizing that the permit applicant has a unique interest in the outcome of a petition seeking review of the permitting authority's decision to issue a permit to the applicant, the Board granted Cardinal's request by order dated December 9, 2004.

II. *DISCUSSION*

A. *Standard of Review*

The Board's review of PSD permitting decisions is governed by 40 C.F.R. part 124, which "'provides the yardstick against which the Board must measure'" petitions for review of PSD and other permit decisions. *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 769 (EAB 1997)(quoting *In re Envotech, L.P.*, 6 E.A.D. 260, 265 (EAB 1996)). Pursuant to those regulations, a decision to issue a PSD permit will ordinarily not be reviewed unless the decision is based on either a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. 40 C.F.R. § 124.19(a); *accord, e.g., In re Zion Energy, LLC*, 9 E.A.D. 701, 705 (EAB 2001); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 126-27 (EAB 1999); *Commonwealth Chesapeake*, 6 E.A.D. at 769. The preamble to section 124.19 states that the Board's power of review "should be only sparingly exercised," and that "most permit conditions should be finally determined at the [permitting authority] level." 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); *accord Knauf*, 8 E.A.D. at 127; *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 114 (EAB 1997).

We have explained that in order to establish that review of a permit is warranted, section 124.19(a) requires that a petitioner both state the objections to the permit that are being raised for review and explain why the permit decision maker's previous response to those objections (i.e., the decision maker's basis for the decision) is clearly erroneous or otherwise warrants review. *See, e.g., In re Steel Dynamics, Inc.*, 9 E.A.D. 740, 744 (EAB 2001); *In re Tondu Energy Co.*, 9 E.A.D. 710, 714 (EAB 2001); *In re Encogen Cogeneration Fac.*, 8 E.A.D. 244, 252 (EAB 1999);*Kawaihae*, 7 E.A.D. at 114; *In re P. R. Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995); *In re Genesee Power Station L.P.*, 4 E.A.D. 832, 866-67 (EAB 1993). It is not enough simply to repeat objections made during the comment period. *See, e.g., Zion Energy*, 9 E.A.D. at 705; *Knauf*, 8 E.A.D. at 127.

In the present case, we conclude as explained below that OBCT has failed to sustain its burden of showing that WDOE's basis for its decision was clearly erroneous or involves an important matter of policy or exercise of discretion that warrants review.

B. *NO_X and CO Emissions from the Natural Gas-Fired Furnace*

OBCT objects to the Permit's limits for NO_X and CO emissions from the natural gas-fired furnace. Specifically, OBCT argues that WDOE improperly concluded that the 3R Process is BACT and that WDOE should have concluded that oxy-fuel technology is BACT for this type of facility. OBCT submits two argu-

ments in support of its position. First, OBCT argues that WDOE improperly rejected oxy-fuel technology as technically infeasible and that, instead, oxy-fuel has "years of actual operating experience and is technically feasible and capable of limiting NO_X emissions to as low as 3 lbs/ton of glass and CO emissions below 1 lb/ton of glass." Petition ¶¶ 16, 20-21. Second, OBCT argues that WDOE improperly failed to conduct a cost-effectiveness analysis of oxy-fuel for limiting NO_X and CO emissions. Petition ¶¶ 11.C, 22-24. OBCT also argues that, even with 3R Process selected as BACT, WDOE should have set emissions limits for NO_X at 5.5 lbs/ton of glass produced and CO at less than 6.5 lbs/ton of glass produced. Petition ¶¶ 11.B, 18-19.

As discussed below, we deny OBCT's request that we review the Permit's conditions specifying emissions limits based on the 3R Process as BACT for the control of NO_X and CO from the natural gas-fired furnace because OBCT has not shown clear error in WDOE's determination to eliminate oxy-fuel due to concerns regarding its technical feasibility. We also hold that WDOE's determination regarding the issue of technical feasibility was sufficient to eliminate oxy-fuel as BACT without conducting a full cost-effectiveness analysis. We also conclude that OBCT has not shown clear error in WDOE's decision to set the emissions limits for application of the 3R Process at 7 lb NO_X/T_G and 6.5 lb CO/T_G, rather than 5.5 lb NO_X/T_G and lower than 6.5 lb CO/T_G as suggested by OBCT.

1. *Background: Top-down BACT Analysis*

As noted above, the PSD regulations require that new major stationary sources and major modifications of such sources employ the "best available control technology," or BACT, to minimize emissions of regulated pollutants. 42 U.S.C. § 7475(a)(4); 40 C.F.R. § 52.21(j)(2). BACT is a site-specific determination resulting in the selection of an emission limitation that represents application of control technology appropriate for the particular facility. *In re Three Mountain Power, LLC*, 10 E.A.D. 39, 47 (EAB 2001); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 128-29 (EAB 1999); *see also In re CertainTeed Corp.*, 1 E.A.D. 743, 747 (Adm'r 1982) ("It is readily apparent * * * that * * * BACT determinations are tailor-made for each pollutant emitting facility."). BACT is defined by the regulations in relevant part as follows:

> *Best Available Control Technology* means an emissions limitation * * * based on the maximum degree of reduction for each pollutant * * * which would be emitted from any proposed major stationary source or major modification which the Administrator, 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, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

40 C.F.R. § 52.21(b)(12) (2004).

In the present case, WDOE followed the NSR Manual's guidance for determining BACT using an approach known as the "top-down" method. TSD at 4-7. The NSR Manual is not a binding Agency regulation and, as such, strict application of the methodology described in the NSR Manual is not mandatory. *See, e.g., Three Mountain Power*, 10 E.A.D. at 42, 54. However, a careful and detailed analysis of the criteria identified in the regulatory definition of BACT is required, and the methodology described in the NSR Manual provides a framework that assures adequate consideration of the regulatory criteria and consistency within the PSD permitting program. *See, e.g., id.* at 54; *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 183 (EAB 2000) ("This top-down analysis is not a mandatory methodology, but it is frequently used by permitting authorities to ensure that a defensible BACT determination, involving consideration of all requisite statutory and regulatory criteria, is reached."); *Knauf*, 8 E.A.D. at 129 n.14, 134 n.25.

The NSR Manual summarizes the top-down method for determining BACT as follows:

> The top-down process provides that all available control technologies be ranked in descending order of control effectiveness. The PSD applicant first examines the most stringent — or "top" — alternative. That alternative is established as BACT unless the applicant demonstrates, and the permitting authority in its informed judgment agrees, that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not "achievable" in that case.

NSR Manual at B.2; *see also In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 84-92 (EAB 1998).

The NSR Manual provides a five-step procedure for implementing the top-down analysis. The first step is to identify all "potentially" available control options. NSR Manual at B.5. The second step, which as discussed below was central to WDOE's decision in the present case, is to eliminate "technically infeasible" options. *Id.* at B.7. This second step involves first determining for each technology whether it is "demonstrated," which means that it has been installed and operated successfully elsewhere on a similar facility, and if not demonstrated, then whether it is both "available" and "applicable." Technologies identified in step one as "potentially" available, but that are neither demonstrated nor found

after careful review to be both available and applicable, are eliminated under step two from further analysis. *Id.*

In step three of the top-down analysis, the remaining control technologies are ranked and then listed in order of control effectiveness for the pollutant under review, with the most effective alternative at the top. *Id.* In the fourth step of the analysis, the energy, environmental, and economic impacts are considered and the top alternative is either confirmed as appropriate or is determined to be inappropriate. *Id.* at B.29. Issues regarding the cost effectiveness of the alternative technologies are considered under step four. *Id.* at B.31-.46. Finally, under step five, the most effective control alternative not eliminated in step four is selected as BACT. *Id.* at B.53.

The issues raised by OBCT in the present case regarding technical feasibility of oxy-fuel arise under the NSR Manual's guidelines for step two of the top-down BACT analysis, and the issues regarding cost effectiveness arise under step four. *See, e.g.*, *Haw. Elec. Light*, 8 E.A.D. at 84-92; *In re Maui Elec. Co.*, 8 E.A.D. 1, 5-6 (EAB 1998).

2. *Step Two: The Issue of Technical Feasibility*

The NSR Manual describes the question of "technical feasibility" under step two of the BACT analysis as consisting of, first, a determination whether the technology in question has been "demonstrated," and, second, if not demonstrated, then a determination whether the technology is "available" and "applicable." NSR Manual at B.17. A technology is demonstrated "if the control technology has been installed and operated successfully on the type of source under review." *Id.* If a technology has not been demonstrated, then it must be both "available" and "applicable" to be considered technically feasible:

> [A] technology is considered "available" if it can be obtained by the applicant through commercial channels or is otherwise available within the common sense meaning of the term. An available technology is "applicable" if it can reasonably be installed and operated on the source type under consideration.

Id. More specifically, "technologies in the pilot scale testing stages of development would not be considered available for BACT review" and "[t]echnical judgment on the part of the applicant and the review authority is to be exercised in determining whether a control alternative is applicable to the source type under consideration." *Id.* at 18.

The NSR Manual also explains that "a presumption of technical feasibility may be made by the review authority based solely on technology transfer." *Id.* at B.19. The NSR Manual describes this approach as follows:

> For example, in the case of add-on controls, decisions of this type would be made by comparing the physical and chemical characteristics of the exhaust gas stream from the unit under review to those of the unit from which the technology is to be transferred. Unless significant differences between source types exist that are pertinent to the successful operation of the control device, the control option is presumed to be technically feasible unless the source can present information to the contrary.

Id. The NSR Manual also notes that "a showing of unresolvable technical difficulty with applying the control would constitute a showing of technical infeasibility (e.g., size of the unit, location of the proposed site, and operating problems related to specific circumstances of the source)." *Id.*

OBCT argues in its Petition that (1) "oxy-fuel technology has years actual operating experience on flat glass plants," Petition ¶ 16; and (2) a technology, such as oxy-fuel, is considered technically feasible if it is "available within the common sense meaning of the term" and applicable, and that a technology is considered available "if it has reached the licensing and commercial sales stage of development," which OBCT contends is the case with oxy-fuel, *id.* ¶ 20 (citing NSR Manual at B.17-.18). OBCT also argues that WDOE "failed to consider oxy-fuel's lengthy experience on other types of glass plants, under the 'technology-transfer' doctrine of BACT analysis." Petition ¶ 21. OBCT's first argument appears to be directed at the question whether oxy-fuel has been "demonstrated." OBCT's second argument speaks directly to the alternative analysis, namely whether oxy-fuel is "available" and "applicable," particularly under the notion of technology transfer. These arguments, however, do not establish grounds sufficient for us to grant review of WDOE's permitting decision. WDOE specifically addressed these same arguments in its Response to Comments, and OBCT has failed to explain in its Petition "why the [permit decision maker's] previous response to those objections (i.e., the [decision maker's] basis for the decision) is clearly erroneous or otherwise warrants review." *Steel Dynamics*, 9 E.A.D. at 744; *In re Tondu Energy Co.*, 9 E.A.D. 710, 714 (EAB 2001); *In re Encogen Cogeneration Fac.*, 8 E.A.D. 244, 252 (EAB 1999); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 114 (EAB 1997); *see also In re Puerto Rico Elec. Power Auth.*, 6 E.A.D. 253, 255 (EAB 1995); *In re Genesee Power Station L.P.*, 4 E.A.D. 832, 866-67 (EAB 1993).

In the TSD and in its Response to Comments, WDOE explained why it concluded that oxy-fuel has not been "demonstrated" in a facility similar to Cardi-

nal's producing high-quality flat glass through the float process and why WDOE concluded that the technology is not yet available and applicable to such a facility. TSD at 9-10; Response to Comments at 5-8. In the TSD, WDOE explained that oxy-fuel "has been widely adopted by the glass industry with the exception of the float glass sector." TSD at 9. WDOE explained why oxy-fuel has not been adopted in the float glass sector as follows:

> Use of oxy-fuel firing in the float glass sector appears to be inhibited by a high capital investment requirement, concerns about furnace refractory deterioration and effects on product quality. * * * Oxy-fuel burning leads to increased temperature and gas-phase alkali concentration in the furnace. This is the main pathway for vapor attack on the glass furnace refractory. Research is on-going to counteract the generally-acknowledged problem of refractory deterioration.

Id. at 9-10. WDOE's reasons for concluding that oxy-fuel is not "demonstrated" fall squarely within the NSR Manual's guidance concerning whether "the control technology has been installed and operated successfully on the type of source under review." NSR Manual at B.17. In short, WDOE explained that the problem of furnace refractory deterioration precludes WDOE from finding that oxy-fuel has been operated successfully in a facility producing high-quality flat glass through the float process.

In addition, in its Response to Comments, WDOE specifically discussed the four plants that OBCT had identified in its comments as allegedly showing that oxy-fuel has been demonstrated to be successfully installed and operated. WDOE explained that the four plants identified by OBCT have features or characteristics that distinguish them from the facility at issue in this permitting proceeding. Response to Comments at 5. For example, WDOE stated that a plant identified by OBCT located in Keihin, Japan, is not the same type of facility as the one at issue here. Specifically, the Keihin, Japan facility is not designed to produce high-quality flat glass similar to Cardinal's proposed facility and the Keihin, Japan plant burns fuel oil, rather than a natural gas-fired furnace as proposed for Cardinal's facility. *Id.* Notably, WDOE's analysis in this regard is consistent with the guidance of the NSR Manual, which specifically states that a control technique should not even be considered "potentially applicable"[11] unless the determination is "based on demonstrations made on the basis of manufacturing identical or simi-

[11] The determination of "potentially applicable" is made at step one of the top-down BACT method and, thus, control techniques that have not been found to be "potentially applicable" at step one are not analyzed for technical feasibility under step two, which includes the more detailed analysis of applicability.

lar products from identical or similar raw materials or fuels." NSR Manual at B.10.

WDOE also explained in its Response to Comments that the PPG Industries, Fresno plant and the PPG-Meadville furnace have higher permit limits than WDOE is setting for the Cardinal facility using the 3R Process. Response to Comments at 5-6. Finally, with respect to the Pilkington Rossford, Ohio facility, WDOE explained that "the related two to three year operating history is insufficient to satisfy the concept of demonstrated technology when the primary issue is furnace life." *Id.* at 6.

OBCT's Petition does not identify any error in these responses to comments. Indeed, beyond merely asserting that "Oxy-fuel technology has years of actual operating experience on flat glass plants," Petition ¶ 16, OBCT provided no argument or basis from which we could conclude that WDOE committed clear error in its Response to Comments, or more generally in WDOE's finding that oxy-fuel has not been demonstrated on facilities comparable to Cardinal's proposed facility. OBCT's allegation, unsupported by any analysis whatsoever discussing WDOE's Response to Comments, is insufficient to sustain OBCT's burden to "explain why the [permit decision maker's] previous response to those objections (i.e., the [decision maker's] basis for the decision) is clearly erroneous or otherwise warrants review." *Steel Dynamics*, 9 E.A.D. at 744; *Tondu Energy*, 9 E.A.D. at 714; *Encogen*, 8 E.A.D. at 252; *Kawaihae*, 7 E.A.D. at 114. Accordingly, we conclude that OBCT has not shown clear error in WDOE's conclusion that oxy-fuel has not been demonstrated on a facility similar to the one at issue in this case.

Next, we turn to OBCT's argument that oxy-fuel should be found to be technically feasible because it is "available" and "applicable" to the type of facility Cardinal proposes to construct. Here, we note that OBCT's argument appears to be primarily directed to the question whether oxy-fuel is available, and OBCT does not speak directly to the applicability question, except by reference to the potential of technology transfer. Petition ¶¶ 20, 21. In contrast, WDOE's rationale for rejecting oxy-fuel is solidly grounded on questions regarding whether oxy-fuel is "applicable." For example, WDOE explained in its initial analysis made available before the public comment period that, while there is potential that oxy-fuel may result in extremely low NO_X levels, "[h]owever, its use is intimately tied to the furnace and burner design and production formulation that are still in research and demonstration phases." TSD at 10. WDOE's rejection of oxy-fuel on this ground is consistent with the NSR Manual's guidance that technologies in the testing stage generally are not considered technically feasible. NSR Manual at B.18.

WDOE explained further in its Response to Comments that "oxy-fuel firing is likely to have unpredictable glass quality problems." Response to Comments

at 6. WDOE quoted a recent report as concluding that "'[t]rials have been carried out * * * resulting in good NO_X reduction, but problems occurred with severe foaming * * * the higher quality requirements make [solutions] more difficult to apply * * * .'" *Id.* (alterations made by WDOE) (quoting Reaction Engineering International and Energy & Environment Strategies, *Summary of Emissions Controls Available for Large Stationary Sources of NO_X and PM,* (June 30, 2003)). WDOE also cited another report for the conclusion that the degree of refractory corrosion is not yet predictable in virtually identical furnaces. *Id.* at 7 (citing TNO Glass Group, Eindhofen, The Netherlands, *Glass Newsletter* (May 5, 2004)). WDOE also cited this report as identifying an example of 80% furnace refractory deterioration in an oxy-fired furnace after only two years. *Id.* These responses to comments express a rationale consistent with the NSR Manual's guidance that "a showing of unresolved technical difficulty with applying the control would constitute a showing of technical infeasibility" and that technology transfer is not appropriate where "significant differences between source types exist that are pertinent to the successful operation of the control device." NSR Manual at 19.

WDOE's analysis set forth in the TSD and in its Response to Comments shows a careful and detailed consideration of oxy-fuel as a potentially feasible emissions control method. We have explained that:

> [I]t is important to distinguish between BACT decisions where the permit issuer failed to consider an "available" control option in the first instance and decisions where the option was considered but rejected. Where a more stringent alternative is not evaluated because the permitting authority erred in not identifying it as an "available" option, a remand is usually appropriate, because proper BACT analysis requires consideration of all potentially "available" control technologies. However, where an alternative control option has been evaluated and rejected, those favoring the option must show that the evidence "for" the control option *clearly outweighs* the evidence "against" its application.

In re Inter-Power of N.Y., Inc., 5 E.A.D. 130, 144 (EAB 1994) (footnotes omitted); *accord In re Three Mountain Power, LLC*, 10 E.A.D. 39, 50 (EAB 2001); *In re Maui Elec. Co.*, 8 E.A.D. 1, 15 (EAB 1998); *In re Masonite Corp.*, 5 E.A.D. 551, 569 n.26 (EAB 1994). Moreover, when the Board is presented with conflicting expert opinions or data, we look to see if the record demonstrates that the permitting agency duly considered the issues raised in the comments and if the approach ultimately selected is rational in light of all the information in the record, including the conflicting opinions and data. *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 180 n.16 (EAB 2000); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 568 (EAB 1998). In the present case, WDOE's analysis set forth

in the Response to Comments shows careful consideration of both OBCT's comments and the information in the record, and OBCT has failed to demonstrate in its Petition why the information upon which it seeks to rely clearly outweighs the information relied upon by WDOE. Accordingly, we conclude that OBCT has failed to demonstrate that WDOE's analysis is clearly erroneous. OBCT also has not shown that WDOE's permitting decision involves an important policy or discretionary decision that warrants review. Therefore, we deny review of WDOE's decision to eliminate oxy-fuel from further consideration as BACT due to concerns regarding the technical feasibility of oxy-fuel for Cardinal's proposed facility.

3. *Step Four: Cost Effectiveness*

OBCT argues that WDOE improperly failed to conduct a cost-effectiveness analysis of oxy-fuel for limiting NO_X and CO emissions. Petition ¶¶ 11.C, 22-24. We deny review of this issue because WDOE's determination regarding the issue of technical feasibility was sufficient to eliminate oxy-fuel as BACT without conducting a full cost-effectiveness analysis.

Under the NSR Manual's guidance, issues regarding the cost effectiveness of alternative control technologies are considered under step four of the top-down BACT analysis. NSR Manual at B.31-B.46. A control technology that is eliminated under step two, however, does not need to be reviewed under step four. NSR Manual at B.7; *accord In re Haw. Elec. Light*, 8 E.A.D. 66, 84-92 (EAB 1998). *Compare In re Old Dominion Elec. Corp.*, 3 E.A.D. 779, 794-95 (Adm'r 1992) (control technology eliminated as not technically feasible under step two) *with In re Masonite Corp.*, 5 E.A.D. 551, 567 nn.21 & 24 (EAB 1994) (distinguishing cost effectiveness from the review of technical feasibility performed in *Old Dominion*).

Because we find, as discussed above, that OBCT has not shown any clear error in WDOE's determination under step two that oxy-fuel is not BACT due to questions regarding the technical feasibility of oxy-fuel for WDOE's facility, WDOE was not required to perform a cost-effectiveness analysis of oxy-fuel and WDOE did not need to provide such an analysis in response to OBCT's comments on this issue. For this reason, we reject OBCT's arguments that we should grant review of this issue.[12] Haw. Elec. Light, 8 E.A.D. at 84-92.

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[12] WDOE argues in response to OBCT's Petition that it did perform a cost-effectiveness analysis sufficient to determine that the cost of oxy-fuel for Cardinal's proposed facility is "obviously excessive" in relation to the removal efficiency and, consequently, that a more detailed analysis is not required under the reasoning of *In re Masonite Corp.*, 5 E.A.D. 551, 566 (EAB 1994), and *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 213 (EAB 2000). Because we have concluded that WDOE was not required to perform a cost-effectiveness analysis of oxy-fuel on the grounds that WDOE properly

Continued

4. *More Stringent Limits Under 3R Process*

WDOE concluded that appropriate emissions limits for the natural gas-fired furnace at Cardinal's proposed facility applying the 3R process are 7 lb NO_X/T_G and 6.5 lb CO/T_G. Permit at 6, 9. OBCT seeks review of these limits for NO_X and CO emissions, arguing that, even with 3R Process selected as BACT, WDOE should have set emissions limits for NO_X at 5.5 lbs/ton of glass produced and CO at less than 6.5 lbs/ton of glass produced. Petition ¶¶ 11.B, 18-19. We deny review of the Permit's NO_X and CO limits because OBCT has not shown that WDOE's permitting decision is clearly erroneous.

WDOE explained in its Response to Comments that "[n]o flat glass plant in the U.S. using 3R Process has a lower permit limit than that specified in Cardinal's draft permit." Response to Comments at 8. In addition, WDOE stated:

> [A]t least four of the known thirteen float glass furnaces designed to use the 3R process and operated for extended periods below 7 lb NO_X/T_G have experienced refractory failure substantially earlier than normal expectations, and are in the re-build process.

Id. WDOE also explained that Cardinal had presented evidence that "Cardinal's Mooresville glass furnace, which has operated below 7 lb NO_X/T_G for extended periods, is starting to show similar early refractory failure." *Id.* In addition, in the TSD, WDOE explained that there may be a relationship between early furnace failure due to refractory damage from operating the furnace using the 3R Process to obtain NO_X reductions below 7 lb NO_X/T_G. TSD at 13-15. In particular, WDOE stated that "[t]here is significant evidence from the U.S. and Europe that float glass furnaces using the 3R Process are experiencing early refractory damage." *Id.* at 15. For this reason, WDOE concluded that emissions lower than 7 lb NO_X/T_G using the 3R Process are not currently technically feasible. *Id.*

With respect to the CO limit, WDOE explained that "there is a distinct inverse relationship between CO and NO_X emissions when applying the 3R Process." *Id.* at 9. WDOE explained that "the CO emission limit prescribed in the draft Cardinal permit reflects the inverse NO_X — CO relationship and a reasonable margin from the lowest demonstrated CO emission levels in consideration of the corresponding NO_X emission limit. It is the lowest CO emission limit for a flat glass plant using 3R Process with an equivalent NO_X emission limit." *Id.*

(continued)
eliminated oxy-fuel from further consideration under step two of the top-down method, we do not reach WDOE's alternative argument that the cost-effectiveness analysis it did perform was sufficient under the circumstances of this case.

We have previously noted that a permit writer is not required to use the lowest emissions limit that has been demonstrated in a similar facility. *In re Kendall New Century Dev.*, 11 E.A.D. 40, 53 (EAB 2003). We explained as follows:

> Although this emission limit [suggested by the petitioner as demonstrated at another facility] may be somewhat lower than the limit set by IEPA in the present case, it does not show clear error in IEPA's decision. We have held that permit writers retain discretion to set BACT levels that "do not necessarily reflect the highest possible control efficiencies but, rather, will allow permittees to achieve compliance on a consistent basis."

Id. (quoting *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 188 (EAB 2000)) (footnote omitted); *accord In re Three Mountain Power, LLC*, 10 E.A.D. 39, 53 (EAB 2001); *In re Masonite Corp.*, 5 E.A.D. 551, 560-61 (EAB 1994); *see also In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 15 (EAB 2000) ("There is nothing inherently wrong with setting an emissions limitation that takes into account a reasonable safety factor. * * * The inclusion of a reasonable safety factor in the emission limitation calculation is a legitimate method of deriving a specific emission limitation that may not be exceeded.").

The underlying principle of all of these cases is that PSD permit limits are not necessarily a direct translation of the lowest emissions rate that has been achieved by a particular technology at another facility, but that those limits must also reflect consideration of any practical difficulties associated with using the control technology. OBCT's arguments in the present case pointing out that lower NO_X and CO emissions rates have been achieved at other facilities, therefore, cannot show clear error in WDOE's permitting decision without addressing the practical considerations WDOE identified in its analysis. As noted above, WDOE explained that emissions limitations lower than 7 lb NO_X/T_G and 6.5 lb CO/T_G would potentially result in excessive damage to Cardinal's furnace. TSD at 13-15. OBCT has not demonstrated in its Petition any error, much less clear error, in this rationale for WDOE's permitting decision. Accordingly, we deny review of the Permit's emissions limits for NO_X and CO. *Kendall New Century Dev.*, 11 E.A.D. at 153 (petitioner failed to show clear error in the general reasons the permit issuer identified as the basis for permit limits that were not the lowest achieved at other facilities).

C. *The Trackmobile*

OBCT argues that WDOE should have required application of BACT to control emissions from the trackmobile. OBCT argues that "since the trackmobile is permanently situated at a given location (the track circle) on the Cardinal

grounds, it does not qualify as a mobile non-road engine and is subject to BACT analysis." Petition ¶ 26. OBCT also argues that emissions from the trackmobile "could be substantial, depending on the hours of operation and engine size." *Id.* ¶ 30. For the following reasons, we deny review of this issue. OBCT describes the trackmobile as "a vehicle mounted on a circle of train tracks that will move train cars around the grounds of the Cardinal facility." *Id.* ¶ 25.

Upon consideration, we conclude that WDOE correctly determined that the trackmobile is not subject to PSD review because the trackmobile does not fall within the statutory definition of "stationary source" under CAA § 302(z), 42 U.S.C. § 7602(z). The trackmobile does not fall within the statutory definition of "stationary source" because that definition expressly states that emissions directly from a "nonroad vehicle" are not from a stationary source, and WDOE correctly concluded that the trackmobile is a "nonroad vehicle" under CAA § 216(11), 42 U.S.C. § 7550(11).

The statutory definition of "stationary source" governs this issue because the PSD permitting program applies to the construction of any new "major stationary source" or any project at an existing "major stationary source." 40 C.F.R. § 52.21(a)(2). A stationary source is determined to be "major" based on the amount of air pollutants it emits, *id.* § 52.21(b)(1), and the CAA defines the term "stationary source" to mean "any source of an air pollutant *except* those emissions resulting directly from * * * a nonroad engine or nonroad vehicle." CAA § 302(z), 42 U.S.C. § 7602(z) (emphasis added). Thus, the statute expressly excludes from the PSD permitting requirements emissions resulting directly from a nonroad engine or a nonroad vehicle. Accordingly, emissions directly from the trackmobile are not subject to the PSD program's BACT requirements if the trackmobile is a "nonroad vehicle" within the meaning of the statute.

The CAA defines the term "nonroad vehicle" as "a vehicle powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition." CAA § 216(11), 42 U.S.C. § 7550(11).[13] The term "nonroad engine" is defined by the regulations in relevant part as follows:

> *Nonroad engine* means:
>
> (1) Except as discussed in paragraph (2) of this definition, a nonroad engine is any internal combustion engine:

[13] The trackmobile will not be used for competition. Moreover, OBCT has not suggested that the trackmobile would fall within the meaning of "motor vehicle," which is defined by the statute to mean "any self-propelled vehicle designed for transporting persons or property on a street or highway." CAA § 216(2), 42 U.S.C. § 7550(2).

> (i) In or on a piece of equipment that is *self-propelled or serves a dual purpose by both propelling itself and performing another function* (such as garden tractors, off-highway mobile cranes and bulldozers); or
>
> (ii) In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
>
> (iii) That, by itself or in or on a piece of equipment, is *portable or transportable, meaning designed to be and capable of being carried or moved from one location to another*. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
>
> (2) An internal combustion engine is not a nonroad engine if:
>
> * * *
>
> (iii) the engine *otherwise included in paragraph (1)(iii)* of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. *A location is any single site at a building, structure, facility, or installation.*

40 C.F.R. § 89.2 (definition of "nonroad engine") (emphasis added).

WDOE concluded that the trackmobile falls within the definition of "nonroad engine" because it is "'self-propelled or serves a dual purpose by both propelling itself and performing another function'" and therefore falls within paragraph (1)(i) of the "nonroad engine" definition in 40 C.F.R. § 89.2. Response to Comments at 10. WDOE also explained that the exception set forth in paragraph (2)(iii) of the "nonroad engine" definition in section 89.2 does not exclude the trackmobile because that exception applies by its terms only to paragraph (1)(iii) of the "nonroad engine" definition, which refers to "portable or transportable" engines, and does not apply to engines, such as the trackmobile, that are "self-propelled" and fall within paragraph (1)(i) of the "nonroad engine" definition in section 89.2. Response to Comments at 10. WDOE explained further that the trackmobile does not fall within the exception set forth in paragraph (2)(iii) because it will not remain at the same "location" for 12 consecutive months where the term "location" means "'any single site at a building, structure, facility, or installation.'" Response to Comments at 10 (quoting 40 C.F.R. § 89.2("nonroad en-

gine" paragraph (2)(iii))). WDOE explained that this means the engine must be "parked" at a single site. Response to Comments at 10.

In its Petition, OBCT argues that WDOE's conclusion that the trackmobile is not a "nonroad engine" is erroneous because "the trackmobile is permanently situated at a given location (the track circle) on the Cardinal grounds." Petition ¶ 26. OBCT explains further that it "believes that the trackmobile emissions are directly associated with the Cardinal plant and are conducted as part of its operations, under the EPA advice letter in the El Paso Energy Bridge matter (October 28, 2003), and that the trackmobile's fixed location on its tracks constitute a single location under 40 C.F.R. [§] 89.2. "Petition ¶ 27. OBCT's arguments, however, fail to show any error, much less clear error, in WDOE's analysis set forth in its Response to Comments.

First, we reject OBCT's contention that the railroad tracks upon which the trackmobile will operate must be treated as a "location" within the meaning of paragraph (2)(iii) of the "nonroad engine" definition in section 89.2. OBCT's own description of the trackmobile recognizes that it "will move train cars around the grounds of the Cardinal facility." Petition ¶ 25. The very notion of "moving" around the grounds of the facility is patently inconsistent with the regulation's description of "location" as a "*single site* at a building, structure, facility, or installation." 40 C.F.R. § 89.2 ("nonroad engine" paragraph (2)(iii)) (emphasis added). Simply stated, OBCT's efforts in this case to construe something that moves around the grounds of the facility as being a "single site" at the facility requires an excessively unnatural and distorted reading of the regulation's plain language.

Moreover, this same characteristic of moving train cars around the grounds of the facility underscores an additional reason why the exclusion set forth in paragraph (2)(iii) of the "nonroad engine" definition in section 89.2 does not apply to the trackmobile. As WDOE noted in its Response to Comments at page 10, by its terms paragraph (2)(iii) applies only to an "engine otherwise included in paragraph (1)(iii) of this definition." 40 C.F.R. § 89.2 ("nonroad engine" paragraph (2)(iii)). The trackmobile, however, must be viewed as a quintessential example of a "self-propelled" engine under paragraph (1)(i) of the "nonroad engine" definition and not as a "portable or transportable" engine described in paragraph (1)(iii). The trackmobile's most important feature — and, indeed, its sole function — is its ability to propel itself and the train cars around the grounds of the Cardinal facility. Under these circumstances,[14] applying the exception set forth in paragraph

[14] We do not address the question of whether a permit-issuing authority has discretion to apply the exclusion in paragraph (2)(iii) of the "nonroad engine" definition in section 89.2 in circumstances where an engine's ability to propel itself is only a minor characteristic or where the area in which engine moves is only a very small part of the overall facility. Those are not the circumstances of this case where the trackmobile's self-propulsion is its central and defining feature and its sole purpose is to move train cars around the grounds of the facility.

(2)(iii) of the "nonroad engine" definition in to the trackmobile would eviscerate the regulation's distinction between "self-propelled" engines described in paragraph (1)(i) and "portable or transportable" engines described in paragraph (1)(iii). *See* Response to Comments at 10 (noting that extending the qualifier "portable and transportable" to include "anything that can move under its own power leads to contradiction of the preceding paragraphs (i) and (ii), and is a logical inconsistency"). The distinction apparent from the plain language of the regulatory text between "self-propelled" and "portable or transportable" engines is further supported by the preamble to the *Federal Register* notice promulgating these regulations, where the Agency explained: "the revised definition specifically states that portable and transportable engines remaining in a particular location for over 12 months are not nonroad engines (this excludes engines in self-propelled equipment and equipment intended to be propelled while performing its intended function), thus ensuring that engines that are actually used in a stationary manner are considered stationary engines." Control of Air Pollution; Determination of Significance for Nonroad Sources and Emission Standards for New Nonroad Compression-Ignition Engines At or Above 37 Kilowatts, 59 Fed. Reg. 31,306, 31,311 (June 17, 1994). We therefore reject OBCT's argument that the exception in paragraph (2)(iii) of the "nonroad engine" definition in section 89.2 applies in this case. *See Conn. Nat'l Bank v. Germain*, 503 U.S. 249, 253 (1992) ("courts should disfavor interpretations of statutes that render statutory language superfluous"); *United States v. Talley*, 16 F.3d 972, 976 n.7 (8th Cir. 1994) ("It is an elementary rule of construction that effect must be given, if possible, to every word, clause and sentence of a statute."); *see also In re City of Moscow*, 10 E.A.D. 135, 143 (EAB 2001) (same rules of construction apply to administrative regulations as apply to statutes); *accord In re Mayes*, 12 E.A.D. 54, 91 (EAB 2005) ("it is very well settled that statutes and regulations must be read as a whole and single components may not be plucked out and applied wherever convenient").

Second, we also reject OBCT's contention that statements made by Regional Counsel Charles J. Sheehan in connection with another permitting matter, known as the El Paso Energy Bridge, have any bearing upon the issues in the present case. *See* Letter from Charles J. Sheehan, Regional Counsel, U.S. EPA Region 6, to Michael Cathey, Managing Director, El Paso Energy Bridge Gulf of Mexico, LLC (Oct. 28, 2003) (hereinafter "Sheehan Letter").[15] OBCT states that it "believes that the trackmobile emissions are directly associated with the Cardinal plant and are conducted as part of its operations, under the EPA advice letter in the El Paso Energy Bridge matter (October 28, 2003)." Petition ¶ 27. Beyond this brief statement, OBCT did not offer any explanation of why it views the Sheehan Letter to be relevant. Upon consideration, we conclude that the Sheehan Letter has no relevance to the present case because the emissions at issue in the El Paso

[15] The Sheehan Letter may be found at: http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/20031028.pdf (last viewed Mar. 8, 2005).

Energy Matter were from a stationary source. Sheehan Letter at 8-10. In contrast, in the present case, the emissions from the trackmobile are, by statutory definition, expressly not from a stationary source. As we explain above, the trackmobile is a nonroad vehicle and CAA § 302(z) expressly excludes emissions from a nonroad vehicle from the definition of stationary source.[16] For these reasons, we conclude that the Sheehan Letter has no bearing on the present matter.

Finally, we note that WDOE's Response to Comments provided a further reason for excluding the trackmobile from PSD review that OBCT has not sought to challenge in its Petition. Specifically, WDOE explained that emissions from the trackmobile may not be considered as secondary emissions due to the regulatory exclusion of tailpipe emissions from mobile sources at a stationary source under 40 C.F.R. § 52.21(b)(18). Response to Comments at 11. OBCT's Petition did not argue that WDOE erred in reaching this conclusion.

For the foregoing reasons, we conclude that OBCT has not shown clear error in WDOE's analysis and we therefore reject OBCT's request that we grant review of WDOE's decision not to require application of BACT to control emissions from the trackmobile.

III. *CONCLUSION*

For the reasons set forth above, we deny OBCT's petition seeking review of WDOE's decision to issue the Permit to Cardinal. In accordance with 40 C.F.R. § 124.19(f)(2), the Regional Administrator of EPA Region 10, or his delegate, shall promptly publish in the *Federal Register* a notice of this final agency action.

So ordered.

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[16] Section 302(z) defines "stationary source" to mean "generally any source of an air pollutant except those emissions resulting directly from an internal combustion engine for transportation purposes or from a nonroad engine or nonroad vehicle" as defined in section 216. CAA § 302(z); 42 U.S.C. § 7602(z). Significantly, Regional Counsel Sheehan stated that this exclusion did not apply to the emissions at issue in the El Paso Energy Matter. Sheehan Letter at 8-10 (noting, among other things, that the vessels at issue were powered by "external combustion engines" and therefore were *not* excluded "nonroad engines" or "nonroad vehicles," which are defined as "internal combustion engines" by 40 C.F.R. § 89.2 ("nonroad engines" paragraph (1)).