IN RE SHELL OFFSHORE, INC., KULLUK DRILLING UNIT AND FRONTIER DISCOVERER DRILLING UNIT

OCS Appeal Nos. 07-01 & 07-02

ORDER DENYING REVIEW IN PART AND REMANDING IN PART

Decided September 14, 2007

Syllabus

On June 12, 2007, U.S. Environmental Protection Agency, Region 10 ("Region"), issued two Outer Continental Shelf ("OCS") air regulation minor source permits (the "Permits") to Shell Offshore, Inc. ("SOI"). The Permits authorize SOI to "mobilize, operate and demobilize" two drilling vessels for placement and anchoring in the Beaufort Sea OCS sea floor, off the North Slope of Alaska, for the purpose of oil exploration. On July 16, 2007, Resisting Environmental Destruction on Indigenous Lands, a Project of the Indigenous Environmental Network; Northern Alaska Environmental Center; Alaska Wilderness League; Center for Biological Diversity; and Natural Resources Defense Council (collectively "REDOIL"), and the North Slope Borough ("NSB") (collectively the "Petitioners"), filed timely petitions with the Environmental Appeals Board (the "Board") opposing the Permits on various grounds.

The petitions present issues of first impression concerning the regulation of air pollution from OCS activities under section 328 of the Clean Air Act ("CAA" or the "Act") and its implementing regulations at 40 C.F.R. part 55, and require consideration of how these OCS provisions interface with the Act's preconstruction review Prevention of Significant Deterioration ("PSD") regulations. At issue is whether, under section 328, the Region may define each separate location at which an SOI drilling vessel attaches to the seabed as a separate OCS source, and how, if at all, such determination affects the scope of what constitutes a single stationary source for purposes of the PSD regulations. This question affects whether SOI may obtain minor source permits, as the Region has issued here, or must obtain major source PSD permits, which would subject the company to a more rigorous set of application criteria and permit requirements.

NSB and REDOIL both dispute the Region's interpretation of what constitutes an OCS source and allege that the Region erred by authorizing each drill site to be treated as a separate minor source for PSD purposes. NSB also challenges: (1) the Region's calculation of the drill ships' potential to emit ("PTE") nitrogen oxides ("NO_X") and the practical enforceability of the Permits' NO_X limitations of 245 tons per year ("tpy"); (2) the validity and reliability of SOI's modeling analysis to predict the impact of the drill ship emissions on the ambient air quality; (3) the adequacy of the opportunity for public participation the Region afforded the affected communities; and (4) the sufficiency of the Region's environmental justice analysis.

Held: The Board remands the Permits on the sole issue of the "stationary source" the Region identified for purposes of determining whether PSD permits would be required for SOI's proposed activities on the OCS. On all other issues, review is denied. The Board holds as follows:

- The Board rejects the Petitioners' argument that the Region clearly erred by concluding in this case that the "OCS source" within the meaning of CAA section 328 and 40 C.F.R. part 55 is the drill ship when attached to the seabed and not the drill ship wherever it travels on the OCS.

- The Board rejects NSB's contention that the boundaries of Shell's mineral leaseholds necessarily define what constitutes "contiguous or adjacent properties" under the PSD regulations, which in turn determines which emissions sources constitute a single stationary source. However, the Board finds that the Region did not provide an adequate analysis and record support for its conclusion that each OCS source separated by more than 500 meters is a separate stationary source. The Region concluded that such sources are not "contiguous or adjacent properties" within the meaning of the applicable PSD regulations. The Board remands the Permits so the Region may provide an adequate explanation of its rationale, supported by record evidence, for determining the 500-meter perimeter to be the boundary of a single stationary source, or to modify its determination of what constitutes a single stationary source.

- The Board rejects NSB's arguments related to the Region's PTE calculations. NSB contends that the Region failed to require SOI to calculate PTE at the sources' maximum design capacities and that SOI failed to meet the requirements for obtaining an Owner Requested Limit (" ORL") under the applicable Alaska regulations. The Board finds that SOI's PTE calculation properly considered the ORL, which limits the sources' NO_X emissions below the major source threshold. Under the Alaska regulations, which require a calculation of actual emissions when requesting an ORL, the "actual emissions" of a source that has not yet begun operations is equivalent to PTE. Accordingly, the Region did not err in approving SOI's ORL, which was based on the PTE calculation without a separate actual emissions calculation.

- The Board also denies review of NSB's contentions that the ORL for NO_X is not federally enforceable. The issue, which was reasonably ascertainable but not raised during the comment period on the draft permits, was not preserved for review before the Board.

- The Board rejects NSB's contention that SOI's ambient air quality modeling analysis, which the Region accepted, is invalid. NSB argued that the analysis did not follow the preferred or recommended air quality model, did not include data for all emissions units for each stationary source, and did not provide adequate background air quality data. Because the Board finds that these issues related to the modeling analysis are fundamentally technical in nature and that the Region's response to comments does not reflect clear error, the Board declines to substitute its own judgment for the Region's technical judgment.

- The Board finds that NSB has not demonstrated that the Region clearly erred in its conduct of public participation in the permitting process. The Board is unpersuaded that by holding the public hearing and comment period on the draft permits during the spring subsistence harvest period, the Region denied the communities affected by the Permits an opportunity for meaningful participation in the permitting process.

The Board finds that the record indicates that the Region complied with its regulatory obligations regarding public notice and comment. Additionally, the Board finds that the record reflects compliance with Executive Order 13,175 regarding tribal consultation.

- The Board rejects NSB's assertion that the Region failed to perform an adequate environmental justice analysis under Executive Order 12,898. Because the executive order concerns the adverse human health or environmental effects of a federal agency's programs, policies, and activities on minority populations and low-income populations, and the Region has determined that no such adverse effects cognizable under the PSD permit program will result from the issuance of the Permits to SOI, the Board declines to review this issue.

Before Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast.

Opinion of the Board by Judge Stein:

On July 16, 2007, the Environmental Appeals Board ("EAB" or the "Board") received two petitions requesting that it review two Outer Continental Shelf ("OCS") air regulation minor source permits. U.S. Environmental Protection Agency ("EPA" or the "Agency") Region 10 (the "Region") issued the permits (nos. R10OCS-AK-07-01 and R10OCS-AK-07-02) (collectively the "Permits") to Shell Offshore, Inc. ("SOI"), pursuant to Clean Air Act ("CAA" or the "Act") section 328, 42 U.S.C. § 7627, and the applicable regulations governing air emissions from OCS sources at 40 C.F.R. part 55. Petitions were filed by the North Slope Borough ("NSB"), designated as OCS Appeal No. 07-01, and by Earthjustice on behalf of Resisting Environmental Destruction on Indigenous Lands, a Project of the Indigenous Environmental Network; Northern Alaska Environmental Center; Alaska Wilderness League; Center for Biological Diversity; and Natural Resources Defense Council (collectively "REDOIL"), designated as OCS Appeal No. 07-02. The Permits authorize SOI to "mobilize, operate and demobilize" two drilling vessels for placement and anchoring in the Beaufort Sea OCS sea floor, off the North Slope of Alaska, for the purpose of oil exploration.

The petitions present issues of first impression concerning OCS sources under section 328 of the CAA and its implementing regulations at 40 C.F.R. part 55, which require us to consider how these OCS provisions interface with the Act's preconstruction review Prevention of Significant Deterioration ("PSD") regulations. In brief, we must consider whether, under section 328, the Region may define each separate location at which an SOI drilling vessel attaches to and detaches from the seabed as a separate OCS source, and how, if at all, such determination impacts the scope of what constitutes a single stationary source for purposes of the PSD regulations. This question affects whether SOI may obtain minor source permits, as the Region has issued here, or must obtain major source PSD permits, which would subject the company to a more rigorous set of application criteria and permit requirements. As part of our analysis, we consider whether

the PSD regulations require emissions from the same drilling vessel at different locations, or from the two drilling ships considered together, to be aggregated as a single stationary source.

For the reasons set forth below, we deny review of all issues raised in the petitions, with one exception. We reject, among other contentions, Petitioners' view that emissions from drill ships on adjacent or contiguous lease blocks on the Outer Continental Shelf must necessarily be aggregated as a single stationary source. However, we also find that the Region did not provide an adequate analysis and record support for its conclusion that OCS sources separated by more than 500 meters are not "contiguous or adjacent properties" within the meaning of the applicable PSD regulations such that they are not treated as a single stationary source. Accordingly, we remand the Permits on the sole issue of the "stationary source" the Region identified for purposes of determining whether PSD permits would be required for SOI's proposed activities on the OCS.[1]

I. *BACKGROUND*

A. *Factual and Procedural Background*

The Permits allow SOI to conduct exploratory drilling activity, using two drill ships, the *Kulluk* and the *Frontier Discoverer*, on SOI's Minerals Management Service-authorized oil and gas lease blocks in the Beaufort Sea OCS.[2] The Permits authorize drilling activity between 2007 and 2009 on these lease blocks located within twenty-five miles of the State of Alaska's seaward boundary. *See Kulluk* and *Frontier Discoverer* OCS Pre-construction Air Permit Applications (Dec. 29, 2006) (collectively, the "Permit Applications"); Alaska Outer Continental Shelf Air Quality Control Minor Permit Approval to Construct for *Kulluk* and *Frontier Discoverer* (June 12, 2007). Both Permits provide for the use of drill ships as well as a variety of support vessels, including ice breakers and supply ships.

SOI submitted applications for two OCS minor source preconstruction permits on December 29, 2006. *See* Permit Applications. The Region considered the applications complete on February 2, 2007, although SOI supplemented its appli-

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[1] We observe that although the scope of the remand is limited, the outcome of the remand may have implications for other issues.

[2] The Secretary of the U.S. Department of the Interior, through the Minerals Management Service ("MMS"), regulates and manages the development of mineral resources on the OCS. *See* 43 U.S.C. § 1334 (authorizing Secretary of the Interior to administer leasing of the OCS); U.S. Department of the Interior, *Department Manual* pt. 188, ch. 1 (Mar. 20, 2006), *available at* http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3702 (describing delegation of authorities).

cations on February 7, 2007, March 26, 2007, and March 29, 2007. *See* Letter from Susan Childs, Regulatory Affairs Coordinator, Alaska, Shell Offshore, Inc., to Daniel L. Meyer, Office of Air, Waste and Toxics, U.S. EPA, Region 10, *Additional Compliance Plan Information – Shell Kulluk and the Frontier Discoverer* (Feb. 7, 2007); Letter from Susan Childs, Regulatory Affairs Coordinator, Alaska, Shell Offshore, Inc., to Daniel L. Meyer, Office of Air, Waste and Toxics, U.S. EPA, Region 10, *Shell Kulluk and Frontier Discoverer – Addendum to Pre-Construction Permit Applications – Beaufort Sea OCS Exploration Drilling Program* (Mar. 26, 2007); E-mail from Cam Toohey, Shell, to Dan Meyer, Office of Air, Waste and Toxics, U.S. EPA, Region 10, *Shell OCS – Kulluk and Frontier Discoverer Air Permits* (Mar. 29, 2007, 3:45PM). The Region issued statements of basis[3] and draft minor source preconstruction permits on March 30, 2007, and invited public comments between April 5, 2007 and May 12, 2007. *See* Statement of Basis for Air Quality Control Minor Permit No. R10OCS-AK-07-01 Approval to Construct (June 12, 2007) ("*Frontier Discoverer* Statement of Basis"); Statement of Basis for Air Quality Control Minor Permit No. R10OCS-AK-07-02 Approval to Construct (June 12, 2007) ("*Kulluk* Statement of Basis"); Alaska Outer Continental Shelf Air Quality Minor Permit Approval to Construct, Permit No. R10OCS-AK-07-01 (Draft) ("Draft *Frontier Discoverer* Permit"); Alaska Outer Continental Shelf Air Quality Minor Permit Approval to Construct, Permit No. R10OCS-AK-07-02 (Draft) ("Draft *Kulluk* Permit"); Public Notice of Outer Continental Shelf Air Quality Permits, Public Hearing, and Public Comment Period. Both NSB and REDOIL submitted written comments on the draft permits during this comment period. *See* Letter from Johnny Aiken, Director, North Slope Borough, to Natasha Greaves & Dan Meyer, Office of Air, Waste and Toxics, U.S. EPA Region 10, et al., *Shell Offshore Inc. OCS Air Quality Comments 2007-2009 Exploration Plan for an OCS Operation in the Beaufort Sea* (May 11, 2007) ("NSB Comments"); REDOIL Petition for Review ("REDOIL Pet.") at 3. On May 8, 2007, the Region held a public hearing in the village of Nuiqsut, Alaska, during which several attendees provided oral comments. *See* Public Hearing Testimony Summary. On June 12, 2007, the Region issued the final permits along with a response to comments document. *See Kulluk* Permit; *Frontier Discoverer* Permit; Region 10, U.S. EPA, *Shell Kulluk Drilling Unit OCS Minor Permit No. R10OCS-AK-07-01 & Frontier Discoverer Drilling Unit OCS Minor Permit No. R10OCS-AK-07-02, Response to Public Comments* ("Response to Comments").

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[3] As part of the permit decisionmaking process, the Agency prepares a statement of basis when it does not prepare a fact sheet. 40 C.F.R. § 124.7. The statement of basis presents the Agency's technical basis for the terms and conditions of the proposed permit and also provides the basic information needed to judge the adequacy of the draft permit and allow informed public comment. Final National Pollutant Discharge Elimination System Regulations, 44 Fed. Reg. 32,854, 32,880-81 (June 7, 1979); *see also* Final Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,408-09 (May 19, 1980) ("[T]he statement of basis is supposed to be a brief summary that meets minimum requirements.").

NSB and REDOIL timely filed petitions under 40 C.F.R. § 124.19 requesting that this Board grant review of the Region's June 12, 2007 permitting decisions. *See generally* NSB Petition for Review ("NSB Pet."); REDOIL Pet. NSB and REDOIL both dispute the Region's interpretation of what constitutes an OCS source and allege that the Region erred by authorizing each drill site to be permitted as a separate minor source. NSB Pet. at 13-28; REDOIL Pet. at 11-15. NSB also challenges: (1) the Region's calculation of the drill ships' potential to emit nitrogen oxides ("NO_X") and the practical enforceability of the Permits' NO_X limitations of 245 tons per year ("tpy") (NSB Pet. at 33-53); (2) the validity and reliability of SOI's modeling analysis to predict the impact of the drill ships' emissions on ambient air quality (*id*. at 53-59); (3) the adequacy of the opportunity for public participation the Region afforded the affected communities (*id*. at 59-64); and (4) the sufficiency of the Region's environmental justice analysis (*id*. at 65-72).

On July 19, 2007, the Board held a scheduling conference with the parties and on July 20, 2007, issued an order setting an expedited briefing and argument schedule. Order Setting Briefing Schedule; *see also* Order Scheduling Oral Argument (setting oral argument for August 10, 2007). With the Board's permission, SOI filed a response on July 26, 2007, and a corrected response on July 30, 2007, to the NSB and REDOIL petitions. *See* Response to Petitions for Review; Shell Offshore Inc.'s Corrected Response to Petitions for Review ("SOI's Corrected Resp.").[4] The Region filed its response to the Petitions on August 3, 2007. EPA Region 10's Response to Petitions for Review ("Region's Resp."). REDOIL filed a reply to the Region's and SOI's response briefs on August 8, 2007. Petitioners' Reply to EPA Region 10 and Shell Offshore Inc.'s Responses to Petitions for Review ("REDOIL Reply"). NSB filed a reply to the response briefs on August 10, 2007. NSB's Reply to EPA Region 10 and Shell Offshore Inc.'s Responses to Petition for Review ("NSB Reply"). The Board heard oral argument on August 10, 2007, and gave both SOI and the Region the opportunity to file post-argument responses to the NSB and REDOIL reply briefs. SOI filed its response on August 15, 2007, and an errata to the response on August 27, 2007. SOI's Response to Petitioners' Reply Briefs ("SOI Post-Argument Resp."); SOI's Errata to Response to Petitioners' Reply Briefs ("SOI Errata to Post-Argument Resp."). The Region declined to file a response. *See* EPA Notification Regarding Sur Reply. The case now stands ready for decision by the Board.

[4] This decision cites to SOI's Corrected Response.

B. *Statutory and Regulatory Background*

1. *Regulation of Air Pollution from Outer Continental Shelf Activities*

Section 328 of the Act, 42 U.S.C. § 7627, which was added by the 1990 amendments to the Act, requires EPA to promulgate regulations to control air pollution from OCS sources by mandating that OCS sources: (1) do not interfere with attainment and maintenance of federal and state ambient air quality standards and (2) comply with the PSD program established at title I, part C, of the Act. CAA § 328(a)(1), 42 U.S.C. § 7627(a)(1). Under section 328, an OCS source includes:

> [A]ny equipment, activity, or facility which -
> (i) emits or has the potential to emit any air pollutant,
> (ii) is regulated or authorized under the Outer Continental Shelf Lands Act * * *, and
> (iii) is located on the Outer Continental Shelf * * * .
> Such activities include, but are not limited to, platform and drill ship exploration, construction, development, production, processing, and transportation. For purposes of this subsection, emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source.

CAA § 328(a)(4)(C), 42 U.S.C. § 7627(a)(4)(C).

The Outer Continental Shelf Air Regulations at 40 C.F.R. part 55 implement CAA section 328 and establish "the air pollution control requirements for OCS sources and the procedures for implementation and enforcement of the requirements." 40 C.F.R. § 55.1. The regulations further define "OCS source" by incorporating (i), (ii), and (iii) from the statute above and by further providing that:

> This definition shall include vessels only when they are:
>
> (1) Permanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring, developing or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA (43 U.S.C. § 1331 *et seq.*) * * * .

40 C.F.R. § 55.2. Under part 55, OCS sources must obtain a preconstruction permit from either EPA or an EPA-delegated agency if the OCS source is located within twenty-five miles of a state's seaward boundaries and is subject to either the federal or state requirements listed in 40 C.F.R. §§ 55.13 or 55.14.[5] 40 C.F.R. §§ 55.6(b)(1),[6] 55.11; *see also* CAA § 328(a)(3), 42 U.S.C. § 7627(a)(3) (discussing delegation).

Under 40 C.F.R. § 55.13, the PSD program applies to OCS sources located within twenty-five miles of a state's seaward boundary when the OCS source involves the construction of a new major stationary source or a modification at an existing major source, and the onshore area geographically closest to the source – known as the corresponding onshore area ("COA") – is classified under the PSD program as in attainment or unclassifiable. 40 C.F.R. § 55.13(d)(1) ("40 C.F.R. § 52.21 (PSD) shall apply to OCS sources * * * [l]ocated within 25 miles of a State's seaward boundary if the requirements of 40 CFR 52.21 are in effect in the COA.").

Section 55.14 incorporates the regulations that certain states located along the coasts of the Pacific, Atlantic, and Arctic Oceans and the Gulf of Mexico promulgated to meet the national ambient air quality standards ("NAAQS").[7] 40 C.F.R. § 55.14(d); *see also* CAA § 328(a)(1), 42 U.S.C. § 7627(a)(1) (defining the geographic scope of EPA authority to regulate air pollution from OCS sources). The state regulations, created pursuant to CAA § 110(d), 42 U.S.C. § 7410, are known as state implementation plans ("SIPs"). Additional state and local requirements incorporated into the OCS regulations are listed at appendix A

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[5] As we explain below in Part I.B.2, EPA has not delegated this authority to the state.

[6] Section 55.6 also requires EPA to determine whether a "consistency update" under section 55.12 is necessary. 40 C.F.R. § 55.6(b)(2). Accordingly, EPA published a consistency update determining the provisions of the State of Alaska's regulations applicable to OCS sources within twenty-five miles of Alaska's seaward boundaries that are incorporated into part 55 at section 55.14. Outer Continental Shelf Air Regulations Consistency Update for Alaska, 72 Fed. Reg. 5936 (Feb. 8, 2007). Among other things, EPA's consistency update determined that Alaska's major source and minor source permitting regulations set forth at Alaska Administrative Code title 18, articles 3 and 5, are incorporated into part 55. *Id.* These regulations establish the minor source and major source permitting requirements with which SOI's proposed OCS sources must comply.

[7] The NAAQS are air quality standards for particular pollutants "measured in terms of total concentration of a pollutant in the atmosphere." Office of Air Quality Planning and Standards, U.S. EPA, *New Source Review Workshop Manual* C.3 (draft Oct. 1990) ("NSR Manual"). The Agency has set NAAQS for six criteria pollutants: sulfur oxides, particulate matter, nitrogen dioxide, carbon monoxide, ozone, and lead. A facility's compliance with the NAAQS with respect to nitrogen dioxide is measured in terms of emissions of any NO_x. 40 C.F.R. § 52.21(b)(23); *In re BP Cherry Point*, 12 E.A.D. 209, 212 n.5 (EAB 2005); *In re Haw. Elec. Light Co.*, 8 E.A.D. 66, 69 n.4 (EAB 1998). The Act further directs EPA to designate geographic areas within states, on a pollutant-by-pollutant basis, as being either in attainment or in nonattainment with the NAAQS, or as being unclassifiable. CAA § 107(d), 42 U.S.C. § 7407(d).

to part 55. 40 C.F.R. § 55.14(e). Of particular relevance in this case are the SIP and other state-specific OCS requirements for Alaska.

2. *The PSD Program*

The PSD program is a preconstruction review program applicable to areas of the country that have attained the NAAQS or are unclassifiable. CAA §§ 160-169, 42 U.S.C. §§ 7470-7479. In broad overview, the PSD program limits the impact of new or modified major stationary sources on ambient air quality by requiring the issuance of a PSD permit before a major stationary source may begin construction or undertake certain modifications. The program includes two central elements: a demonstration that the source will not have an unacceptable impact on air quality, and a requirement to utilize best available control technology ("BACT") to control emissions. CAA §§ 165(a)(1), 169(1), (2)(C), 42 U.S.C. §§ 7475(a)(1), 7479(1), (2)(C).

Alaska's regulations, like the federal PSD regulations that are largely incorporated by reference into Alaska's regulations, *see generally* Alaska Admin. Code tit. 18, § 50.040 (adopting federal standards by reference), provide that a PSD permit is required prior to the actual construction of a new major stationary source. *Id.* §§ 50.302(a)(1), 50.306. A "stationary source" is defined as "any building, structure, facility, or installation," which in turn is defined as "all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control)" and includes, in certain situations, vessels. *See id.* § 50.040(h)(4)(B)(iii) (incorporating by reference 40 C.F.R. § 51.166(b) and Alaska Stat. § 46.14.990(4)). A stationary source is "major" if, inter alia, it emits, or has the potential to emit, 250 tpy or more of a regulated new source review ("NSR") pollutant. *Id.* § 50.990(52) (incorporating by reference the definition of "major stationary source" from 40 C.F.R. § 51.166(b)(1)).

Potential to emit ("PTE") relates to a source's inherent capacity to emit air pollutants. In particular, it reflects the maximum capacity of a stationary source to emit an air pollutant taking into consideration the source's physical design and operational limitations. *See* 40 C.F.R. §§ 52.21(b)(4), 55.2. Under the Act, determining a source's PTE is necessary for the Agency to identify which sources are "major sources" subject to regulation under the applicable PSD requirements. *See e.g.*, CAA § 165(a), 42 U.S.C. § 7475(a) (requiring PSD permits for any "major emitting facility"). The PSD regulations define PTE as:

> [T]he maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the

> type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

40 C.F.R. § 52.21(b)(4). In sum, PTE reflects a source's maximum emissions capacity considering the application of any emission control equipment, or other capacity-limiting restrictions, that effectively and enforceably limit emissions capacity.

Alaska's regulations also provide that a minor source permit is required under certain circumstances where a stationary source's PTE is less than 250 tpy. *See* Alaska Admin. Code tit. 18, § 50.502 (providing for minor permits). Specifically, a minor source permit is required prior to the construction of a new stationary source with the potential to emit greater than forty tons per year of NO_X. *Id.* § 50.502(c)(1)(B).

Thus, under the Alaska PSD program, a stationary source that has the potential to emit between 40 and 250 tpy of NO_X must obtain a minor source permit prior to construction, and those stationary sources that have the potential to emit more than 250 tpy must be permitted as a major stationary source. A source that would otherwise exceed the 250 tpy threshold and be subject to PSD requirements may, as here, seek to avoid regulation as a major source by requesting the permitting authority to impose a permit restriction on the source's capacity to emit. Under Alaska regulations, such a limitation is referred to as an Owner Requested Limit ("ORL"). *See id.* § 50.508(5). An ORL, by reducing a source's PTE, can allow a source to qualify as a minor source and thereby avoid the more burdensome regulations applicable to major sources. *See generally*, 40 C.F.R. § 52.21 (establishing PSD requirements for construction or modification of "major sources" of air pollutants).

Typically, state or local permitting authorities implement the PSD program, either according to a PSD program that EPA has approved as part of a SIP, or pursuant to an agreement whereby EPA delegates federal PSD program authority to the state. However, in this case, the PSD program applies to OCS activities to the extent provided by CAA § 328, 42 U.S.C. § 7627, and its implementing regulations. The Agency has retained the authority to implement and enforce section 328 in the OCS off the coast of Alaska. Accordingly, in the present case, SOI submitted the Permit Applications to the Region, and the procedural rules at 40 C.F.R. part 124 apply. 40 C.F.R. § 55.6(a)(3). As described *infra*, the Region determined that the Permits' terms and conditions, including the ORLs, were sufficient to ensure emissions from each source would not exceed the major source threshold, thus obviating the need for PSD permits. As a result, the Region issued minor source, rather than major source, permits to SOI.

C. *The Region's Rationale for Its Permitting Decision as Set Forth in the Region's Response to Comments*

The Region's rationale for its permitting decision is set forth in both the statements of basis for the draft permits and the Region's response to comments. In these documents, the Region distinguished between (1) the scope of the "OCS source" and (2) the question of which emissions units are aggregated as a single stationary source for determining whether a PSD permit is required. The Region noted that "OCS source" identifies the circumstances in which the Region has authority to regulate pollutant emissions on the OCS and that, for a vessel, the "OCS source" determination is based on whether or not the vessel is attached to the seabed.[8]

Specifically, in its statements of basis, the Region stated that, in this case, the "OCS source" is the drill ship "while located at any drill site within a Beaufort Sea OCS lease block authorized by the MMS." *Frontier Discoverer* Statement of Basis at 5; *Kulluk* Statement of Basis at 5. The Region explained that "[t]he [drill ship] and its support vessels are subject to the OCS regulations only when the [drill ship] is attached to the seabed and erected thereon and used for the purpose of exploring, developing or producing resources therefrom. * * * In that sense, it is the above activity at an OCS drill site that EPA is permitting and not the [drill ship] wherever it goes. It is with this interpretation of the OCS regulations and the definition of OCS source that EPA assesses NSR applicability." *Frontier Discoverer* Statement of Basis at 6; *Kulluk* Statement of Basis at 6. The Region reiterated this distinction in its response to comments. Response to Comments at 49-50. In response to a comment arguing that the Region's focus on the drill site contradicts the statute, the Region explained that it "agrees with the commenter in that the OCS source is the drillships," but that "[t]he issue of what is the OCS source is distinct from determining whether emissions should be aggregated across multiple drill sites in determining NSR applicability." *Id.* at 52.

The Region concluded that neither the statute nor regulations clearly discuss whether, or under what circumstances, the emissions from multiple drill sites (i.e., multiple OCS sources) should be aggregated. To make those determinations, the Region looked to traditional NSR permitting concepts and guidance regarding what is a "common sense notion of a plant" used in determining the emissions of a stationary source in other NSR permitting contexts. Specifically, the Region stated as follows:

> [N]either the statute nor the implementing regulations specifically discuss how or whether to aggregate emis-

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[8] The attachment to the seabed must be for the purpose of "exploring, developing or producing resources" from the seabed. 40 C.F.R. § 55.2.

> sions occurring across multiple drill sites. Furthermore the OCS Air Regulations do not regulate any vessel emissions (including those of the drillships) while the vessels are in transit from one drill site to the next. In the absence of clear direction, EPA turns to the NSR regulations within Part 55 to help define a "common sense notion of plant." EPA has determined that in this instance it is a reasonable interpretation to consider each drill site (or surface site) separately. In making this determination EPA considered traditional NSR permitting concepts and EPA guidance and took into account factors such as consideration of ownership, proximity and industrial grouping. EPA determined that the OCS source is the drillships and that for purposes of determining PTE, the emissions from drill site to drill site along with associated emissions are calculated separately.

Id. at 53. Thus, in essence, the Region concluded that, because neither the statute nor the regulatory definition of OCS source require that drill ship activities at multiple drill sites be treated as a single OCS source, the Region's analysis of PSD applicability would be based on the traditional NSR permitting concepts including a "common sense notion of plant" as the appropriate unit of analysis.

The Region concluded that a common sense notion of plant would not require the phrase "contiguous or adjacent property" as used in the PSD regulations to include more than the exploration activities within a 500-meter perimeter at each drill site as requested by SOI in its application. In particular, the Region explained that "[a] 'common sense notion of plant' does not support aggregating emissions across vast swaths of area upon which no emissions generating activity occurs," such as SOI's lease blocks. *Id.* at 59. The Region noted that "[a] single lease block * * * covers some 5760 acres of open water accessible by the public" and that a drill ship "on the other hand, occupies perhaps a few of these acres at a single time." *Id.* Thus, the Region noted that "[e]ven if two drill ships should be operating within the same lease block, the ships could still be separated by a number of miles." *Id.* at 60. The Region also stated that "at no time do two drill ships [] share a physical connection, and at no time is one drill ship[] dependent upon the support of another drill ship[]. Their operations are independent in that sense. So too is a single drillship[']s] operation independent from one site to the next." *Id.* The Region concluded that it "has determined that activities undertaken across different drill sites are most likely never contiguous nor adjacent given that the resultant source would not fall within a 'common sense notion of plant.'" *Id.* With respect to the use of a 500-meter perimeter at each drill site, the Region explained as follows:

> To accommodate local airshed concerns, Shell requested EPA to aggregate emissions occuring within the same 52-week period and generated by equipment located at separate well sites but within 500 [meters] of one another. Beyond this distance, a drillship[] is not anticipated to have an impact greater than EPA's significance levels. Based on consideration of allowable air emissions operational scenarios and other factors EPA determined this approach is reasonable.

Id.

II. *DISCUSSION*

A. *Standard of Review*

In implementing part 124, the Board does not ordinarily review a permitting authority's final permit decision 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); *e.g. In re Zion Energy, L.L.C.*, 9 E.A.D. 701, 705 (EAB 2001); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 126-27 (EAB 1999); *In re Commonwealth Chesapeake Corp.*, 6 E.A.D. 764, 769 (EAB 1997). The Agency stated in the preamble to the part 124 regulations that the power of review "should be only sparingly exercised," and that "most permit conditions should be finally determined at the [permit issuer's] level * * * ." 45 Fed. Reg. 33,290, 33,412 (May 19, 1980); *accord In re Cardinal FG Co.*, 12 E.A.D. 153, 160 (EAB 2005); *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 114 (EAB 1997). The burden of demonstrating that review is warranted rests with the petitioner challenging the permit decision. 40 C.F.R. § 124.19(a); *accord, e.g., Kawaihae Cogeneration*, 7 E.A.D. at 114; *In re EcoEléctrica L.P.*, 7 E.A.D. 56, 61 (EAB 1997); *Commonwealth Chesapeake*, 6 E.A.D. at 769.

B. *The Region's "OCS Source" and "Stationary Source" Determinations*

NSB and REDOIL argue that the Region erred by issuing minor source permits that identify each drill site as a separate OCS source and as a separately permitted stationary source.[9] NSB notes that SOI stated in its Permit Applications

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[9] The Region's statement of basis for the Permits defines the OCS source in this case as "the equipment identified in *Table 1* that generates air pollutant emissions while located at any drill site within a Beaufort Sea OCS lease block authorized by the MMS." *Frontier Discoverer* Statement of
Continued

that "each drill site is a separate stationary source," and that the Region accepted this premise when it issued the Permits. NSB Pet. at 13 (quoting *Kulluk* Permit Application at 1; *Frontier Discoverer* Permit Application at 1). NSB and REDOIL argue that the Region's decision is erroneous for essentially two distinct reasons: NSB and REDOIL argue that the permitting of each drill site separately, first, violates the statutory definition of "OCS source" and, second, that it also violates Alaska's requirements for PSD permitting of "major stationary sources." NSB Pet. at 14; REDOIL Pet. at 11-12. Specifically, NSB points out that the statutory definition of OCS source includes within its scope "equipment, activity, or facility," and that the statutory definition explicitly states that "'activity'" includes "'drill ship exploration.'" NSB Pet. at 14 (quoting 42 U.S.C. § 7627). REDOIL argues that "Congress has specifically defined the term '[OCS] source' to include drill ships like the ones Shell proposes to use this summer." REDOIL Pet. at 12. NSB observes further that Alaska's PSD requirements, which apply in the present case pursuant to 40 C.F.R. § 55.14,[10] define "stationary source" as "any building, structure, facility, or installation," which in turn is defined as "all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control)." *See* Alaska Admin. Code tit. 18, §§ 50.302(a)(1), 50.306; *see also* Alaska Admin. Code tit. 18, § 50.990 (incorporating by reference 40 C.F.R. § 51.166(b)(1)); Alaska Admin. Code tit. 18, § 50.040(h)(4)(B)(iii) (incorporating by reference 40 C.F.R. § 52.21(b)(6)).[11] NSB contends that these definitions require the Region to issue a single permit covering all of SOI's pollution emissions from the same equipment used in its drill ship exploration at contiguous or adjacent lease blocks in the Beaufort Sea. NSB Pet. at 13-15.[12] Petitioner REDOIL raises similar arguments to support its contention that the Region failed to provide record support for its conclusion that drill sites separated by more than 500 meters are not "contiguous or adjacent properties" under the applicable PSD regulations. REDOIL Pet. at 15-17.

(continued)
Basis at 5. Table 1 lists the drill ship's emissions units. *Id.* at 6. *See also Kulluk* Statement of Basis at 5 (same).

[10] *See* Part I.B.1 above.

[11] *See* Part I.B.1 above.

[12] More specifically, NSB argues that "the applicable regulations require EPA to permit all of Shell's pollution emitting activities at unspecified contiguous or adjacent lease blocks in the Beaufort Sea as a single major source." NSB Pet. at 13-14. NSB also argues that pursuant to the statutory definition of "OCS source" "EPA must permit Shell's operations on a drill ship by drill ship basis." *Id.* at 14. NSB argues further that, under the PSD regulations, "EPA must * * * aggregate emissions from both drill ships on each drill site, or revise the permits to limit Shell's drill sites to lease blocks that are not contiguous or adjacent." *Id.* at 14-15.

As noted above and for the reasons that follow, we conclude that, with one exception, NSB and REDOIL have not shown that the Region's decision to issue minor source rather than PSD permits, as further explained in the Response to Comments and in the Statements of Basis, is clearly erroneous. Our analysis, detailed below, addresses three related issues: (1) whether the Region clearly erred in concluding in this case that the "OCS source" within the meaning of section 328 and part 55 is the drill ship when attached to the seabed and not the drill ship wherever it goes; (2) whether the Region clearly erred in concluding that the definition of OCS source under section 328 and part 55 does not replace or supplant the definition of "stationary source" under the applicable PSD regulations; and (3) whether there is adequate analysis and record support for the Region's conclusion that OCS sources separated by more than 500 meters[13] are not "contiguous or adjacent properties" within the meaning of the applicable PSD regulations such that they are treated as a single stationary source. In discussing the last of these three issues, we address whether the Region was required to accept NSB's contention that the boundaries of Shell's mineral resources leaseholds necessarily define the "properties" for purposes of the contiguity or proximity analysis, and the Region's conclusion that drill sites located more than 500 meters apart are not "contiguous or adjacent properties." With respect to the last of these issues, we find that the Region's Response to Comments is not supported by an adequate analysis and record foundation.

1. *Definition of "OCS Source" and the Distinction Between Vessels Attached to the Seabed and Vessels Detached and in Transit*

NSB and REDOIL argue that the statutory definition of "OCS source" requires the Region to treat all exploration activities of each ship as a single source. NSB argues as follows:

> Under Section 328, any "equipment, activity, or facility" on the OCS that pollutes and is regulated or authorized by the OCSLA is an OCS Source. The Kulluk and Frontier Discoverer satisfy this definition. The Kulluk and Frontier Discoverer are equipment. Both emit pollution. With this equipment, Shell is undertaking drill ship exploration authorized and regulated by the OCSLA.

NSB Pet. at 17. NSB contends that "the fact that Shell takes the same equipment to various locations and attaches and reattaches it repeatedly to the seabed is irrel-

[13] As we explain more fully below, the Region argues on appeal that the 500-meter perimeter merely represents "an additional precautionary measure" and that the Region "concluded it would be appropriate to determine that the stationary source for PSD purposes would be the drill ship itself, even without the 500 meter zone." EAB Oral Arg. Tr. ("Tr.") at 61, 63, 64.

evant to the definition of OCS Source * * * . The same 'equipment' is in use at each site." *Id.* According to NSB, "[t]he statute explicitly regulates drill ships, not drill sites." *Id*. REDOIL similarly argues that "Congress has specifically defined the term 'source' to include drill ships like the ones Shell proposes to use this summer." REDOIL Pet. at 12. NSB also argues that, because the statutory definition of OCS source requires emissions from vessels servicing or associated with the OCS source to be treated as direct emissions from the OCS source, "drill ships operating at drill sites within 25 miles of another drill site must be treated as a single OCS Source." NSB Pet. at 18.

We reject NSB's and REDOIL's arguments because they premise their arguments entirely on the statutory definition of "OCS source" and ignore altogether EPA's implementing regulations at part 55. Significantly, the statute required EPA to issue, and EPA did issue, regulations implementing and interpreting the statute's text. These regulations expressly provide that a vessel qualifies as an OCS source "*only when*" it is attached to the seabed. 40 C.F.R. § 55.2 (definition of "OCS source") (emphasis added). As we explain below, EPA promulgated this regulatory language to implement a restriction set forth in the statutory definition of "OCS source." We find no clear error in the Region's conclusion that, with respect to a vessel, the "OCS source" determination must account for whether the vessel is attached to the seabed or is detached and in transit. The Region's decision in the present case to treat each drill site – i.e., the drill ship at the location where the drill ship is attached to the seabed – as a separate "OCS source" appropriately accounts for the regulation's distinction between vessels that are attached and detached from the seabed and, therefore, is not a clearly erroneous application of the statutory definition.

Specifically, the statute required EPA to consult with the Secretary of Interior and issue regulations establishing air pollution control requirements for OCS sources. CAA § 328(a)(1), 42 U.S.C. § 7627(a)(1). In 1992, EPA promulgated the "Outer Continental Shelf Air Regulations," which state with respect to the definition of "OCS source" as follows:

> This definition shall include vessels *only when* they are:
>
> (1) Permanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring, developing or producing resources therefrom * * * ;

40 C.F.R. § 55.2 (definition of "OCS source") (emphasis added).[14] This regulatory provision plainly means that a vessel is included within the definition "only when" it is attached to the seabed.

The regulation's express distinction between vessels attached to the seabed and vessels that are detached implements a statutory restriction in the definition of OCS source that "OCS source" applies to equipment, activities, or facilities "regulated or authorized under the Outer Continental Shelf Lands Act." CAA § 328(a)(4)(C)(ii), 42 U.S.C. § 7627(a)(4)(C)(ii).[15] In promulgating the regulatory definition, EPA explained that the distinction between vessels attached to the seabed and those that are detached makes EPA's regulation of pollution emissions under CAA section 328 consistent with the Department of Interior's authority under the Outer Continental Shelf Lands Act.[16] Specifically, in proposing the OCS regulations, which initially did not include the vessel provision at issue,[17] EPA explained briefly as follows:

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[14] Section 55.2 also provides that a vessel is an OCS source when "[p]hysically attached to an OCS facility, in which case only the stationary source aspects of the vessels will be regulated." 40 C.F.R. § 55.2 (definition of "OCS source"). There is no suggestion that the drill ships at issue in the present case are "physically attached to an OCS facility" when not attached to the seabed. Accordingly, this additional circumstance when a vessel is an OCS source is not at issue in the present case.

[15] As noted earlier in Part I.B.1, the statute defines OCS source as follows:

> The terms "Outer Continental Shelf source" and "OCS source" include any equipment, activity, or facility which -
>
> (i) emits or has the potential to emit any air pollutant,
>
> (ii) is regulated or authorized under the Outer Continental Shelf Lands Act * * * , and
>
> (iii) is located on the Outer Continental Shelf * * * .
>
> Such activities include, but are not limited to, platform and drill ship exploration, construction, development, production, processing, and transportation. For purposes of this subsection, emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source.

CAA § 328(a)(4)(C), 42 U.S.C. § 7627(a)(4)(C).

[16] The statute required EPA to issue regulations establishing air pollution control requirements for Outer Continental Shelf sources after consulting with the Secretary of the Interior. CAA § 328(a)(1), 42 U.S.C. § 7627(a)(1).

[17] *See* Notice of Proposed Rulemaking: Outer Continental Shelf Air Regulations,56 Fed. Reg. 63,774, 63,787 (Dec. 5, 1991).

> Drill ships are considered to be an "OCS source" because they are attached, at least temporarily, to the seabed, and so are authorized and regulated pursuant to the OCSLA; as such, they will be subject to regulation as stationary sources while attached to the seabed. Vessel emissions related to OCS activity are, however, accounted for by including vessel emissions in the "potential to emit" * * * .

Notice of Proposed Rulemaking: Outer Continental Shelf Air Regulations, 56 Fed. Reg. 63,774, 63,777 (Dec. 5, 1991). In the final rulemaking, EPA restated this analysis with greater detail and explained why it modified the final regulation's definition of OCS source to include the provision at issue:

> The definition of "OCS source" has been modified to clarify when EPA will consider vessels to be OCS sources. Section 328(a)(4)(C)(ii) defines an OCS source as a source that is, among other things, regulated or authorized under the OCSLA. The OCSLA in turn provides that the Department of the Interior ("DOI") may regulate "all installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring, developing, or producing resources therefrom, or any such installation or other device (other than a ship or vessel) for the purpose of transporting such resources." 43 U.S.C. § 1333(a)(1). Vessels therefore will be included in the definition of "OCS source" when they are "permanently or temporarily attached to the seabed" and are being used "for the purpose of exploring, developing or producing resources therefrom." This would include, for example, drill ships on the OCS.
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> * * *
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> Only the vessel's stationary source activities may be regulated, since when vessels are in transit, they are specifically excluded from the definition of OCS source by statute. In addition, only the stationary source activities of vessels at dockside will be regulated under title I of the Act (which contains NSR and PSD requirements), since EPA is prohibited from directly regulating mobile sources under that title. *See NRDC v. EPA*, 725 F.2d 761 (DC Cir. 1984). Part 55 thus will not regulate vessels en route to or from an OCS facility as "OCS sources," nor will it regulate any of the non-stationary source activities of vessels

> while at dockside. Section 328 does not provide authority to EPA to regulate the emissions from engines being used for propulsion of vessels. Any state or local regulations that go beyond these limits will not be incorporated into the OCS rule.

Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792, 40,793-94 (Sept. 4, 1992). Subsequently, the D.C. Circuit rejected a challenge to this regulation's distinction between vessels that are attached to the seabed and those that are not attached. *Santa Barbara County Air Pollution Control Dist. v. EPA*, 31 F.3d 1179, 1181 (D.C. Cir. 1994) (holding that the regulation's distinction between attached and detached vessels is a permissible reading of the statute and that it was reasonable for EPA to conclude that OCS source does not include vessels that were merely traveling over the OCS).

In their petitions for review, NSB and REDOIL fail to address the regulatory restriction that vessels are an OCS source "only when" they are "permanently or temporarily attached to the seabed." 40 C.F.R. § 55.2 (definition of "OCS source"). Instead, quoting the statute, NSB argues that the *Kulluk* and *Frontier Discoverer* are forms of "equipment" that undertake drill ship exploration and emit pollution. NSB Pet. at 17. NSB contends that "the fact that Shell takes the same equipment to various locations and attaches and reattaches it repeatedly to the seabed is irrelevant to the definition of OCS Source." *Id.* NSB concludes that "[n]othing in Section 328 limits the definition of OCS Source to a single drill site." *Id.*

We must reject NSB's contention that "the fact that Shell takes the same equipment to various locations and attaches and reattaches it repeatedly to the seabed is *irrelevant* to the definition of OCS Source." *Id.* (emphasis added).[18] As explained above, EPA, in consultation with the Department of Interior, issued regulations that interpret CAA section 328(a)(4)(C)(ii) as including vessels in the definition of "OCS source" "only when" they are attached to the seabed. Accordingly, by the plain language of the regulatory definition, whether a vessel is attached or detached from the seabed is *relevant* to whether the vessel is or is not an OCS source. The Region was not free to ignore this regulatory interpretation of the statutory definition, which draws a distinction between vessels attached to the

[18] REDOIL likewise argues that "[n]othing in the Clean Air Act or the relevant federal or state regulations allows EPA to separate the emissions from the same source, during the same year, based on the well site at which those emissions occur." REDOIL Pet. at 13. This argument ignores the regulation's definition that vessels are OCS sources "only when" attached to the seabed.

seabed and those that are not.[19]

The Region's application of the statutory and regulatory definitions in the present case accounts for the regulation's distinction between vessels that are attached to the seabed and those that are not. The Region explained: "[t]he [drill ship] and its support vessels are subject to the OCS regulations only when the [drill ship] is attached to the seabed * * * . In this sense, it is the above activity at an OCS drill site that EPA is permitting and not the [drill ship] wherever it goes." *Kulluk* Statement of Basis at 9; *Frontier Discoverer* Statement of Basis at 9. The Region's analysis treats the vessels' attachment to the seabed as a necessary element in establishing that a vessel has become an OCS source, and it treats the subsequent detachment as returning the drill ship to its status as a vessel. This approach would not only appear to be permissible, but indeed would appear to be required by the plain language of the regulatory text.

Having determined that the scope of jurisdiction under CAA section 328 is limited to instances in which the drill ship is attached to the seabed, the Region went on to conclude that the drill ship located at each drill site is a separate OCS source. Although the Region's conclusion that each drill site is a separate OCS source may not be required by the plain language of the regulations,[20] it is a permissible reading of the text that a subsequent attachment establishes a new OCS source, rather than a continuation of the one that was terminated by the previous detachment. Neither NSB nor REDOIL have pointed to any statutory or regulatory language that precludes the Region's interpretation that each attachment creates a separate OCS source. In particular, NSB has not explained how its focus on the statute's reference to "equipment" requires that a drill ship's attachment to the seabed must be viewed as a continuation of the same OCS source formed by the previous attachment to and detachment from a different location. Stated simply, NSB's focus on the fact that the same equipment is being used at the subsequent location fails to acknowledge that a regulatory-required element for establishing an OCS source – here, the vessel's attachment to the seabed – was terminated, and

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[19] To the extent that REDOIL argues that "EPA has acted contrary to the plain language of the Clean Air Act in concluding that the drill ships are OCS sources only when attached to the ocean floor," REDOIL Pet. at 14 n.5, we must reject REDOIL's contention as precluded by the plain language of the regulations. The regulatory text has been upheld as a permissible interpretation of the statute's text. *Santa Barbara County Air Pollution Control Dist. v. EPA*, 31 F.3d 1179, 1181 (D.C. Cir. 1994) (holding that the regulation's distinction between attached and detached vessels is a permissible reading of the statute and that it was reasonable for EPA to conclude that OCS source does not include vessels that were merely traveling over the OCS).

[20] The Region admitted at oral argument that its conclusion in the present case that each separate attachment and detachment establishes a separate OCS source, rather than a continuation of the same OCS source, was an exercise of discretion and was not compelled by the statutory and regulatory texts. Tr. at 59 ("The position stated by the Region was that it was not a matter of Chevron I that they were interpreting, it was Chevron II, subject to multiple interpretations.").

that the subsequent occurrence of that element (attachment) at a new time and in a new location is not necessarily, or even easily, characterized as a continuation of the prior attachment. We thus reject the notion that the subsequent attachment, per se, should be characterized as a continuation of the first attachment. Notably, the Region's approach gives expression to the plain meaning of the regulation's inclusion of vessels "only when" attached to the seabed and NSB's does not. In addition, contrary to NSB's argument, the Region's approach also gives expression to the statute's focus on "equipment." As noted above, the Region defined the OCS source in this case as "the equipment identified in *Table 1* * * * while located at any drill site." *Kulluk* Statement of Basis at 5; *Frontier Discoverer* Statement of Basis at 5.

NSB argues that "[i]f Congress had intended for EPA to regulate the same drill ship as a separate source each time it moved to a different location, Congress would have explicitly stated so in the language of the statute." NSB Reply at 4.[21] This argument, however, overlooks the fact that Congress did specifically require, as an essential element for an OCS source, that the equipment, activity, or facility be "regulated or authorized under the Outer Continental Shelf Lands Act." CAA § 328 (a)(4)(C)(ii), 42 U.S.C. § 7627(a)(4)(C)(ii). It is this explicit requirement in the text of the statute that EPA interpreted in its duly promulgated regulations that include vessels within the OCS source definition "only when" attached to the seabed. Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792, 40,793-94 (Sept. 4, 1992). While this regulation does not require each attachment to be viewed as establishing a new OCS source, it does require that each detachment terminates the drill ship's status as an OCS source. The Region has taken that termination of the OCS status into account by treating each attachment as a different OCS source. Thus, we conclude that neither the statute's reference to "equipment," nor the statute's reference to "drill ships," mandate an approach different from the one chosen by the Region, which appropriately takes into account the regulation's distinction between when the drill ship is attached to and detached from the seabed.[22]

We also reject NSB's contention that the statutory text requires "drill ships operating at drill sites within 25 miles of another drill site * * * be treated as a

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[21] REDOIL reiterates this argument in its reply brief. REDOIL Reply at 7 ("Congress could have, but did not, define an 'OCS source' as 'the drill ship *at a specific drill [s]ite*.' Rather, Congress specifically regulated 'equipment, activit[ies], or facilit[ies]' including drill ships without reference to individual drill sites." (citations omitted, alterations supplied by REDOIL).

[22] For the same reason, we also reject REDOIL's argument that the reference to "drill ship" in the statutory definition of OCS source mandates an approach different than the one chosen by the Region. The statutory reference to "drill ship" does not preclude the Region's method of giving expression to the required distinction between when the drill ship vessel is attached to and detached from the seabed.

single OCS Source." NSB Pet. at 18.[23] NSB argues that we must interpret OCS source this way because the statute "provides that emissions from vessels servicing or associated with an OCS [source] are direct emissions from the OCS Source when operating within 25 miles." *Id.* at 17.

The statute does state that "emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source." CAA § 328(a)(4)(C), 42 U.S.C. § 7627(a)(4)(C). However, we reject NSB's contention that this provision therefore requires emissions from multiple OCS sources that are formed as a result of a single vessel attaching to the seabed at multiple locations to be "treated as a single OCS Source" when within 25 miles of each other.[24] The plain language of the statutory provision covers "vessels servicing or associated with an OCS source" – it does not speak to emissions from two separate OCS sources.[25] Moreover, EPA's regulations incorporated this provision in the definition of "potential emissions" rather than the definition of "OCS source." 40 C.F.R. § 55.2 (definitions). In the preamble to the notice of final rulemaking, EPA explained:

> All vessel emissions related to OCS activity will be accounted for by including vessel emissions in the "potential to emit" of an OCS source. * * * Emissions from vessels that service more than one OCS facility will be allocated

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[23] REDOIL joins in this argument for the first time in its reply brief. *See* REDOIL Reply at 6.

[24] NSB explains its view as follows:

> To "associate" means to unite or combine. Here, EPA did not consider the emissions of a drill ship across multiple locations within 25 miles of each other as direct emissions from the source. Each drill ship is clearly "associated with" itself.

NSB Pet. at 18 (citation omitted).

[25] To further explain why NSB's contention must fail, we note that the plain language of the statutory provision NSB cites distinguishes between "vessel" and the "OCS source" that the vessel is servicing or associated with. CAA § 328(a)(4)(C), 42 U.S.C. § 7627(a)(4)(C). Because the regulations provide that a drill ship has the status of an OCS source "only when" attached to the seabed, 40 C.F.R. § 55.2, this provision only speaks to allocation of the drill ship's emissions when it has the status of a vessel and is not itself the OCS source. There is no reason why the analysis of which OCS source the detached drill ship is associated with should differ from the analysis applicable to any other vessel, such as a supply ship, that may service, or at some time be associated with, multiple OCS sources. In the regulatory preamble, EPA explained how this situation should be addressed: "Emissions from vessels that service more than one OCS facility will be allocated among all the OCS facilities that the vessel services, to ensure that there is no double-counting of emissions." Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792, 40,794 (Sept. 4, 1992). This is what the Region required in the permits. *Kulluk* Permit ¶ 7.3; *Frontier Discoverer* Permit ¶ 7.3.

> among all the OCS facilities that the vessel services, to ensure that there is no double-counting of emissions.

Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792, 40,794 (Sept. 4, 1992). We find the Region's determination of the OCS source, and the methodology it used for allocating emissions of support vessels in calculating the source's "potential to emit," to be reasonable and consistent with EPA's statements made when promulgating the OCS air regulations.[26] Accordingly, we must conclude that NSB has failed to sustain its burden of proving clear error in the Region's decision that the "OCS source" is the drill ship "while located at any drill site within a Beaufort Sea OCS lease block authorized by the MMS" and not "the [drill ship] wherever it goes." *Frontier Discoverer* Statement of Basis at 5-6.

2. *The Relationship Between the "OCS Source" and PSD Permitting Requirements*

The Region contends that "in NSB's view, the definition of an OCS source supplants the regulatory PSD definition used to determine which pollutant emitting activities constitute a 'Major Stationary Source.'"[27] Region's Resp. at 6. In its reply brief, NSB confirms that it believes Congress intended "OCS source" to be among the "'any other source[s]'" referenced in CAA section 169(1) for the purposes of determining PSD applicability. NSB Reply at 3 (quoting 42 U.S.C. § 7479(1)).[28] Thus, NSB contends that, where an OCS source has the potential to emit more than 250 tons per year of any air pollutant, the PSD permitting requirements apply to that source notwithstanding any more restrictive applicability standard that might apply under the PSD regulation's definition of "stationary

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[26] The Region explained that:

> [T]he OCS regulations do not apply while the Discoverer is in transit (it remains inherently a vessel), except when the Discoverer or any support vessel is in transit within 25 miles of the drill site. Emissions from the Discoverer and support vessels within a 25-mile radius of the drill site are considered in determining the Discoverer's potential to emit (PTE) as if the Discoverer were already located at the drill site.

Response to Comments at 49. The Region also noted that the Permits provide that when each drill ship and its support vessels are in transit to or from another drill site less than 25 miles away, half of the in-transit emissions shall be aggregated with the emissions at each drill site. *Id.* at 50.

[27] *See supra.* Part I.B.1.

[28] Section 169 provides that "[t]he term 'major emitting facility' means any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant from the following types of stationary sources * * * . Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant." CAA § 169(1), 42 U.S.C. § 7479(1).

source."[29]

In contrast, the Region contends that the definition of OCS source "is not intended to prescribe applicability of the federal or state regulations, including specifically in this permitting action, PSD applicability." Region's Resp. at 6. Pointing to references in the legislative history to Congress's intention to create a regulatory program on the OCS comparable to the permitting programs in the corresponding onshore areas, the Region explains that "[n]either Congress nor EPA * * * intended for the OCS definition of 'source' to revise or expand the definition of 'source' with respect to implementation of any of the federal or state requirements, including the definition of 'stationary source' in the new source review ('NSR') permitting programs." *Id.* at 7 (citing Region's Ex. G-1); 57 Fed. Reg. 40,792 (Sept. 4, 1992). Consistent with this view, the Region stated in its Response to Comments that it "is not replacing the term 'stationary source' with the term 'OCS source' in the context of administering the OCS Air Regulations' NSR permitting program." Response to Comments at 52.

We find that the Region correctly concluded that, once it determines an emissions source located on the OCS is properly classified as an "OCS source," then that emissions source becomes subject to the requirements of 40 C.F.R. part 55. Further, the permitting programs and other requirements to which the OCS source is subject through part 55, including the PSD permitting program, then apply to the OCS source based on the regulations that define the scope of those programs. Specifically, simply because EPA has identified an OCS source as regulated under the CAA, and subject to the requirements of part 55, does not mean it can avoid the next necessary step of determining the scope of the "stationary source" for PSD purposes.

This interpretation is further supported by applicable legislative history. One of Congress' purposes in giving EPA authority to regulate air pollution sources on the OCS was to require similar treatment of onshore and offshore pollution emitting activities by "applying the same air quality protection requirements as would apply if the OCS sources were located within the corresponding onshore area." S. Rep. No. 101-228, at 77 (1989). The regulatory definition of "stationary source" establishes the basic unit of analysis – i.e., what emissions units must be included as part of a single source – for determining whether the PSD program's minimum PTE thresholds are exceeded and a PSD permit is required. There is nothing in the plain language of the statute that indicates Congress intended to replace the unit of analysis used for determining onshore applicability of PSD permitting with the new concept of "OCS source" when determining PSD applicability offshore. To the contrary, the statute demonstrates that where Congress in-

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[29] Again, this assertion is made in the context of NSB's argument that the drill ship is the OCS source, regardless of whether it is attached to the seabed for purposes of drilling.

tended the "OCS source" to be the unit of analysis for determining applicability of a permitting program it did so expressly. *See* CAA § 328(a)(4)(D), 42 U.S.C. § 7627(a)(4)(D) (using the term "OCS source" to define "existing source" for the purposes of the New Source Performance Standards program under section 111 of the Act, 42 U.S.C. § 7411).

We thus specifically reject NSB's and REDOIL's argument that the reference to "any other source" in CAA section 169(1), 42 U.S.C. § 7479(1), requires the "OCS source" to be treated as the unit of analysis used to determine applicability of the PSD permitting program on the OCS. REDOIL Pet. at 12; NSB Pet. at 3. This interpretation, if adopted, would make inapplicable to the OCS the regulations EPA promulgated specifically defining "stationary source" as the unit of analysis for determining PSD applicability. This result would be contrary to Congress's objective of "applying the same air quality protection requirements as would apply if the OCS sources were located within the corresponding onshore area." S. Rep. No. 101-228, at 77. In particular, neither the statutory text nor the legislative history indicates that Congress intended "OCS source," used to identify the emissions units over which EPA has regulatory jurisdiction on the OCS, to replace or bar the analysis of which emissions units must be combined together and treated as a single "stationary source" for determining whether a PSD permit is required. Accordingly, we hold that the Region correctly concluded that it must determine the scope of the applicable "stationary source" in order to determine whether SOI must obtain a PSD permit before commencing construction of its OCS sources.[30]

3. *The Region's Decision to Permit Drill Ship Activities Beyond a 500-Meter Perimeter at Each Drill Site as a Separate "Stationary Source"*

Petitioners NSB and REDOIL advance two related, but distinct, arguments challenging the Region's determination that 500 meters is the "maximum distance between two OCS sources for * * * them to remain in close enough proximity so as to be considered" a single stationary source for which the potential emissions must be calculated. *Frontier Discoverer* Statement of Basis at 10; *Kulluk* Statement of Basis at 10. The Region's determination, in effect, concluded that, where two drill ships (or two drill sites by the same drill ship) are separated by more than 500 meters, there are no circumstances in which those OCS sources must be

[30] To the extent that REDOIL and NSB argue that the reference to "any other source" in CAA section 169(1) precludes characterizing the "stationary source" as comprising fewer than all of the emissions units that are within the "OCS source," we do not need to reach this question since the Region's "stationary source" determination in the present case does not exclude any emissions units that comprise the "OCS source" identified by the Region.

aggregated as a single "stationary source" within the meaning of the applicable PSD regulations.

As noted in Part I.B.2 above, section 51.166(b) defines the term "stationary source" as "any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." 40 C.F.R. § 51.166(b)(5).[31] The federal regulations further define the term "building, structure, facility or installation" as follows:

> [A]ll of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel.

Id. § 51.166(b)(6).[32] The parties agree that SOI's proposed OCS sources all belong to the same industrial grouping and are under the control of the same person. *Frontier Discoverer* Statement of Basis at 10; *Kulluk* Statement of Basis at 10; Response to Comments at 59; NSB Pet. at 19; *see* REDOIL Reply at 10. The parties' dispute instead centers on which of those "pollutant-emitting activities * * * are located on one or more contiguous or adjacent properties" within the regulation's meaning.

NSB argues that, under the regulation's plain meaning, all of SOI's exploration activities located on "contiguous or adjacent" lease blocks must be permitted as a single "stationary source" – that is, in NSB's view, "it is the oil and gas lease blocks that are Shell's 'property,' and the question of whether the drilling takes place on 'contiguous or adjacent property' must therefore be made with reference to the lease blocks owned by Shell." NSB Pet. at 18-20.[33] REDOIL argues that the Region acted arbitrarily and capriciously by concluding that drill sites located outside the 500-meter perimeter of another drill site are not "contiguous or adjacent." REDOIL Pet. at 15-16.

As we explain below, we reject NSB's contention that the word "properties" used in the regulation must refer to the legal boundaries of SOI's oil and gas ex-

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[31] Alaska's statute also provides that the definition of "stationary source" set forth in 40 C.F.R. § 51.166(b) is incorporated by reference into Alaska's law. Alaska Stat. § 46.14.990(27).

[32] Alaska's regulations define "building, structure, facility, or installation" as including vessels under certain circumstances. Alaska Admin. Code tit. 18, § 50.40(h)(4)(B)(iii). There is no suggestion in this case that the outcome should turn on this regulation's treatment of vessels.

[33] NSB argues that "Shell's activities on lease blocks that are physically connected unquestionably satisfy this requirement." NSB Pet. at 22. "[U]nder the plain meaning of 'contiguous or adjacent properties,' Shell's activities are a single major source for PSD permitting purposes." *Id.* at 22-23.

ploration leases. However, we also conclude that the Region has not identified an adequate record basis for its conclusion that drill sites separated by more than 500 meters are, under all circumstances, noncontiguous and nonadjacent properties within the meaning of the regulations, nor has it adequately explained the rationale for its conclusions.

a. *Whether "Properties" Necessarily Means SOI's Lease Blocks*

By arguing that "it is the oil and gas lease blocks that are Shell's 'property,' and the question of whether the drilling takes place on 'contiguous or adjacent property' must therefore be made with reference to the lease blocks owned by Shell," NSB Pet. at 20, NSB conflates two distinct meanings identified in the dictionary definition of "property." Those two meanings are "that which a person owns" or relatedly "ownership" itself (i.e., "right of possession, enjoyment, or disposal of anything") and separately "a piece of land or real estate: *property on Main street.*" *See* Random House Webster's Unabridged Dictionary 1550 (2d ed. 2001). In other words, two distinct meanings that may be invoked by the word "property" are something owned by a person, i.e., that person's property, or a particular piece of land or real estate, i.e., a place or location. We are not convinced that the plain meaning of the word "properties" as used in the regulatory definition of "stationary source" must refer to both of these distinct meanings as NSB's argument implies; nor is it clear from the regulatory text which meaning was intended.

Moreover, in seeking to apply either meaning in the context of this case we must affirm the Region's observation regarding the basic character or nature of oil and gas exploration on the OCS, namely that the Beaufort Sea lease blocks consist of "vast swaths" of "open water accessible by the public." Response to Comments at 59-60. The nature of the area at issue does not correspond well with either dictionary definition of "property" as conventionally used when referring to a land-based operation. More specifically, the leases held by SOI grant rights to explore for, develop, and produce oil and gas from "public lands," but as the Region noted, those leases do not convey the ownership right of excluding the public from the open water above where the oil and gas may be located. *See* OCSLA, 43 U.S.C. § 1331.[34] Thus, the "ownership" interest NSB refers to does not carry with it the exclusive right to possess and use a specific location or place similar to what "ownership" typically connotes in a land-based industrial operation. In this sense, EPA's guidance set forth in the NSR Manual is not particularly helpful in applying the term "property" in the OCS. *See* NSR Manual at A-3 (stating that "[i]n most cases, the property boundary and ownership are easily determined"). Here, the land is "public," and only the mineral exploration rights are privately

[34] NSB recognizes that 43 U.S.C. § 1331 creates "a property interest in the oil and gas rights underlying the OCS." NSB Pet. at 20 n.10.

owned. In addition, because the area is characterized by vast swaths of open water, the area does not readily lend itself to the notion of "property" as connoting a specific location or place identifiable by natural or man-made geographic features.

In parsing the regulatory meaning, we remain mindful that the term "property" is introduced as a criterion to give greater specificity to the phrase "building, structure, facility or installation." As such, absent a clearly expressed intention to the contrary, we are reluctant to interpret the property criterion in a manner that distorts "building, structure, facility, or installation" beyond its common meaning. Indeed, EPA said as much in the regulatory preamble when it promulgated the definition of "building, structure, facility or installation." EPA stated that it viewed the earlier D.C. Circuit decision in *Alabama Power*[35] as setting "the following boundaries on the definition for PSD purposes of the component terms of 'source': (1) it must carry out reasonably the purposes of PSD; (2) it must approximate a common sense notion of 'plant'; and (3) it must avoid aggregating pollutant-emitting activities that as a group would not fit within the ordinary meaning of 'building,' 'structure,' 'facility,' or 'installation.'" Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans, 45 Fed. Reg. at 52,676, 52,694-95 (Aug. 7, 1980).[36] Consequently, in applying the term "property" in the context of the present case, we must carefully scrutinize any proffered application of the term "property" that would result in a departure from the ordinary meaning of building, structure, facility or installation, or that would not approximate a common sense notion of "plant."

Based on the foregoing, we reject NSB's contention that determining "whether the drilling takes place on 'contiguous or adjacent property' must * * * be made with reference to the lease blocks owned by Shell." NSB Pet. at 20. NSB does not dispute that SOI's contiguous or adjacent lease blocks in the Beaufort Sea span hundreds of miles. *See Frontier Discoverer* Statement of Basis at 4, fig.1; *Kulluk* Statement of Basis at 4, fig. 1. Applying the phrase "contiguous or adjacent properties" as requiring aggregation of emissions producing activities spanning hundreds of miles interspersed with vast swaths of open water that is accessible to the public would distort the ordinary meaning of "building, structure, facility, or installation" in a manner that EPA did not intend when it promulgated the definition. In the preamble to the final PSD rules, EPA gave two examples of

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[35] *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979).

[36] We reject NSB's argument that it is improper to turn to EPA's guidance set forth in the regulatory preamble because the regulatory language has a plain meaning. NSB Reply at 9-11. As we explain in the text above, the meaning of "property" is subject to two potential meanings, neither of which corresponds well with the circumstances of the present case. Accordingly, we reject NSB's contention that the meaning of "property" as used in the regulatory text is plain in the present context.

activities connected by contiguous or adjacent properties that EPA said would not be aggregated because of the distance between the components. 45 Fed. Reg. at 52,694-95. With respect to an example of pumping stations along a pipeline, EPA explained that it had "stated in the past and now confirms that it does not intend 'source' to encompass activities that would be many miles apart along a long-line operation." *Id.* at 52,695. Likewise, with respect to an example of a coal mine connected by a 20-mile rail line to an electric generator, EPA explained that most determinations must be made on a case-by-case basis, but that in the example "the mine and the generator would be too far apart." *Id.* These two examples demonstrate that, where the emissions units are separated by many miles, a contiguous pipeline and rail line are not sufficient connections to be "contiguous or adjacent properties" within the regulation's meaning, notwithstanding a real estate ownership or leasehold interest in the rail line or pipeline. Similarly, we reject in the present case NSB's argument that, notwithstanding the potential distance of many miles between SOI's OCS sources, those OCS sources must be treated as a single stationary source simply because the OCS sources are located on contiguous or adjacent lease blocks. The phrase "contiguous or adjacent properties" must be understood as connoting a more substantial connectedness, proximity, or continuity[37] that would correspond to a common understanding of building, structure, facility, installation, or plant.

b. *Whether the Region Provided Adequate Analysis and Record Support for Its "Stationary Source" Determination*

We turn next to REDOIL's argument that the Region acted "[w]ithout any explanation or justification" when it accepted SOI's request that the Region treat drill sites located further than 500 meters apart as not contiguous or adjacent. REDOIL Pet. at 15-16. In particular, REDOIL states that "[n]either the Statement

[37] We note that the parties have cited to us a variety of Agency policy documents and prior PSD determinations to provide guidance regarding the interrelatedness and proximity needed for aggregation of multiple emissions units as a single stationary source. *See* Letter from Richard Long, Director, Air Program, U.S. EPA Region 8, to Lynn Menlove, Manager, New Source Review Section, Utah Division of Air Quality, *Request for Guidance in Defining Adjacent with Respect to Source Aggregation* (May 21, 1998); Letter from Winston A. Smith, Director, Air, Pesticides & Toxics Management Division, U.S. EPA, to Randy C. Poole, Air Hygienist II, Mecklenburg County Dep't of Envtl. Protection, *Applicability of Title V Permitting Requirements to Gasoline Bulk Terminals Owned by Williams Energy Ventures, Inc.* (May 19, 1999); Memorandum from William L. Wehrum, Acting Assistant Administrator, to Regional Administrators, *Source Determinations for Oil and Gas Industries* (Jan. 12, 2007); Letter from Director, Air, Pesticides & Toxics Division, U.S. EPA, to Allen Eli Bell, Executive Director, Texas Air Control Board, *PSD Applicability Request, Valero Transmission Company* (Nov. 3, 1986); Letter from Cheryl L. Newton, Chief, Permits & Grants Section, Air & Radiation Division, U.S. EPA Region 5, to Mike Hopkins, Air Quality Modeling & Planning, Ohio Envtl. Protection Agency (Aug. 8, 1996); ARCO OCS Air Quality Permit Application (Feb. 1993). It is appropriate that the Region be afforded the opportunity, in the first instance, to address these documents when explaining its determination on remand.

of Basis nor the Response to Comments reflect any evaluation of the effects of emissions from sources 500 meters apart or, in fact, any other distance." *Id.* at 16. REDOIL argues further that the Region "has provided no rational basis for choosing the 500 meter cutoff and has shown no facts that might justify why facilities located farther apart than 500 meters are, by definition, not 'contiguous or adjacent.'" *Id.* at 17.

Under the part 124 permitting regulations that apply to this proceeding, we must consider whether the permit issuer "duly considered the issues raised in the comments and whether the approach ultimately adopted by the [permit issuer] is rational in light of all information in the record." *In re Gov't of the Dist. of Columbia Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (2002) [hereinafter *DC MS4*]. The permit issuer's rationale for its conclusions must be adequately explained and supported in the record. *In re City of Moscow, Idaho*, 10 E.A.D. 135, 142 (EAB 2001); *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567-68 (EAB 1998). As we explained, "[w]ithout an articulation by the permit writer of his analysis, we cannot properly perform any review whatsoever of that analysis and, therefore, cannot conclude that it meets the requirement of rationality." *DC MS4*, 10 E.A.D.at 342-43; *accord In re Dominion Energy Brayton Point, L.L.C.*, 12 E.A.D. 490, 589-90 (EAB 2006) (remanding for failure to explain in the record why five days, rather than some other number of days, was selected as a permissible temperature exceedance frequency); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 175 (EAB 1999) (remanding permit because "there [we]re no details regarding [the permitting authority's] determination in the administrative record" against which to "judge the adequacy of the response"); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417 (EAB 1997) (explaining that the permit issuer "'must articulate with reasonable clarity the reasons for [its] conclusions and the significance of the crucial facts in reaching those conclusions,'" (quoting *In re Carolina Power & Light Co.*, 1 E.A.D. 448, 451 (Acting Adm'r 1978))); *In re Austin Powder Co.*, 6 E.A.D. 713, 719-20 (EAB 1997)(permit remanded because Region gave differing explanations for its permit determination, including one explanation for the first time on appeal, making rationale for permit determination unclear); *In re McGowan*, 2 E.A.D. 604, 606-07 (Adm'r 1988) (finding that the "total lack of response" to a comment cannot be cured by reference to an earlier statement because that statement "merely provides a conclusion without supportive reasoning"). Against this standard, we measure the Region's determination in the present case and find it lacking.

In the Statements of Basis, the Region stated that "[w]hat needs to be determined is the maximum distance between two OCS sources for which EPA still considers them to remain close enough in proximity so as to be considered contiguous or adjacent. We are determining that distance, in this case, to be 500 meters." *Frontier Discoverer* Statement of Basis at 10; *Kulluk* Statement of Basis at 10. We conclude that the Region provided no record foundation for this determination

other than a brief statement in the Response to Comments that is unsupported by facts or analysis in the record.

The Region asserts on appeal that, in its Response to Comments, the Region "concluded that it would be appropriate to determine that the stationary source for PSD purposes would be the drill ship itself, even without the 500 meter zone." Tr. at 61. In other words, the Region argues that the 500-meter perimeter merely represents "an additional precautionary measure" and that "the same analysis that justified the drillship itself with no additional distance constituting the stationary source would be equally true if you went out 500 meters, although the Region did not think that the 500 meter boundary was necessary." Tr. at 63, 64. We must reject this contention as not supported by the Region's analysis in the record. The Region's Response to Comments merely states that "activities undertaken across different drill sites are *most likely* never contiguous or adjacent." Response to Comments at 60 (emphasis added). Thus, the conclusion actually stated by the Region in its Response to Comments simply does not support its argument on appeal. A determination of "most likely" is necessarily accepting of the possibility that activities undertaken across different drill sites may, under some set of circumstances, be contiguous or adjacent.

Indeed, if one looks at two drill ships anchored to the seabed and located as close together as physically possible, such ships would appear to conform to a common understanding of the phrase "contiguous or adjacent properties." Although a full analysis of all pertinent facts may demonstrate that two ships located with that close of proximity do not conform to a common sense notion of a plant, nevertheless, absent an identification of other relevant facts,[38] two drill ships situated as close together as is physically possible would seem to be "contiguous or adjacent," and whatever "property" means on the OCS, it would seem to mean at least the OCS source itself (i.e., the drill ship where attached to the seabed). Although circumstances in which two OCS sources are in close proximity, or overlap, may be unlikely to occur, the Region has neither stated so nor provided an analysis explaining why such situations would not require aggregation as a single "stationary source."[39]

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[38] We are mindful that SOI argues that two drill ships located 501 meters apart is "unlikely" to occur. SOI's Post-Argument Resp. at 35 n.16. Nevertheless, an analysis articulating why ships located as close as physically possible, or any other specific distance, are not "contiguous or adjacent properties" does not appear in the record, nor is there an analysis in the record showing that any such circumstances cannot occur either simultaneously or sequentially.

[39] We are not, in this opinion, deciding whether the drill ship, the drill ship plus a 500-meter perimeter, or any other particular distance is appropriate for defining the "stationary source" in this case. Instead, we hold that whatever distance the Region ultimately selects must be supported by facts and an analysis set forth in the record. *See, e.g., In re Dominion Energy Brayton Point, L.L.C.*, 12 E.A.D. 490, 589-90 (EAB 2006) (remanding for failure to explain in the record why five days,

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While the Region did not specifically discuss two OCS sources located in very close proximity, the Region's Response to Comments did provide a brief explanation of why it concluded that separate drill sites "most likely" are not contiguous or adjacent. The Region stated that "at no time do two drillships [] share a physical connection, and at no time is one drillship[] dependent upon the support of another drillship[]. Their operations are independent in that sense. So too is a single drillship[']s operation independent from one site to the next." *See id.* at 59-60.[40] This, however, is merely a conclusory statement for which the Region provided no analysis and did not identify supporting record evidence. The Region admitted that no further analysis exists in the record.[41] Tr. at 67. Moreover, the Response to Comments does not speak to the relevance of "proximity" within the meaning of applicable Agency guidance, when the emissions producing activities are not separated by miles.[42]

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rather than some other number of days, was selected as a permissible temperature exceedance frequency). Any such analysis must account for the regulation's requirement that emissions-producing activities within contiguous and adjacent properties must be aggregated as a single "stationary source."

[40] Notably, SOI's permit application provides even less information as to the factual basis for SOI's request for treatment as separate stationary sources. *See* Letter from Susan Childs, Regulatory Affairs Coordinator, Alaska, Shell Offshore, Inc., to Daniel L. Meyer, Office of Air, Waste and Toxics, U.S. EPA, Region 10, *Shell Kulluk and Frontier Discoverer – Addendum to Pre-Construction Permit Applications – Beaufort Sea OCS Exploration Drilling Program*, at 6 (Mar. 26, 2007) ("There will be no operational dependence between drill sites so all drill sites meet this criteria."). SOI's application in this regard relies on a memorandum issued on January 12, 2007, and titled "Source Determinations for Oil and Gas Industries." *Id.* (citing Memorandum from William L. Wehrum, Acting Assistant Administrator, to Regional Administrators, *Source Determinations for Oil and Gas Industries* (Jan. 12, 2007)). Since the Region stated in its Response to Comments that it was not relying on this memorandum, Response to Comments at 64, we will not consider it on appeal.

[41] The Region asserted during oral argument that "there's no indication in the record that [two drill ships] share any products between the two of them, that they shift crews between the two of them or anything else that would connote the types of common * * * connections that we looked at in previous PSD determinations." Tr. at 65. This argument fails to recognize that there must be record support for the determination that the Region made. *See DC MS4*, 10 E.A.D. at 342-43; *In re GSX Servs. Of S. C., Inc.*, 4 E.A.D. 454 (EAB 1992) (permit remanded because record lacked facts to document Region's rationale for permit term and therefore record did not reflect "considered judgment" necessary to support permit determination).

[42] Over the years, the Agency has issued guidance regarding the question of "proximity" in stationary source determinations. *See, e.g.*, Letter from Richard Long, Director, Air Program, U.S. EPA Region 8, to Lynn Menlove, Manager New Source Review Section, Utah Division of Air Quality, *Request for Guidance in Defining Adjacent with Respect to Source Aggregation* (May 21, 1998); Letter from Winston A. Smith, Director, Air, Pesticides & Toxics Management Division,U.S. EPA, to Randy C. Poole, Air Hygienist II, Mecklenburg Dept. of Envtl. Protection, *Applicability of Title V Permitting Requirements to Gasoline Bulk Terminals Owned by Williams Energy Ventures, Inc.* (May 19, 1999). The Region did cite one guidance memorandum in the Statements of Basis. *Kulluk* Statement of Basis at 10 (citing Memorandum from William L. Wehrum, Acting Assistant Administrator, to Regional Administrators, *Source Determinations for Oil and Gas Industries* (Jan. 12, 2007));
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At a minimum, the Region should discuss circumstances that give rise to reasonably anticipated questions. For example, we do not have the benefit of the Region's reasoning for its apparent conclusion that a single drill ship and its support vessels located at one drill site does not share a physical connection with itself, or support itself, at a subsequent drill site, which could be in proximity to the original site. A single drill ship moving from site-to-site apparently does rely upon the same crew and may otherwise share common connections similar to those analyzed in previous PSD determinations.[43] Similarly, considering facts that are in the record, we are left wondering whether there are circumstances in which two drill ships situated in close proximity would be dependent upon ice-breaking activities that, due to the close proximity, would need to be integrated.[44] While this latter scenario may not be contemplated by SOI's drilling plan, specific facts regarding where SOI plans to drill do not appear to be in the record, nor has the Region provided an analysis explaining why such common connections or dependence would not require aggregation as a single "stationary source."[45]

In its Response to Comments, the Region also briefly addressed the requirement of a 500-meter perimeter. The Region's explanation in the Response to Comments, however, did not say that this distance was provided as "an additional precautionary measure," as the Region argues on appeal. Instead, the Region stated that "[b]eyond this distance, a drillship[] is not anticipated to have an impact greater than EPA's significance levels." Response to Comments at 60. At oral argument, however, the Region clarified that the Response to Comments should not have referred to "significance levels,"[46] but instead should have stated that

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Frontier Discoverer Statement of Basis at 10 (same). However, as we observe *supra* note 40, the Region stated in its Response to Comments that it was not relying on this memorandum.

[43] *See* note 41, *supra*.

[44] *See, e.g., Air Quality Impact Evaluation Report – No Exclusion Zone; Shell Kulluk Beaufort Sea Exploratory Drilling Program*, at 8 (Feb. 19, 2007) (describing icebreaker configuration extending from 5 to 20 km upstream from the drill rig and moving back and forth perpendicular to the drift line approximately 5 km on either side of the drift line); *Air Quality Impact Evaluation Report – No Exclusion Zone; Frontier Discoverer Beaufort Sea Exploratory Drilling Program*, at 7- 8 (Feb. 19, 2007) (same). It seems apparent from these materials that the icebreakers for two drill ships located side-by-side, or even 500 meters apart, would either significantly overlap with no apparent utility, or SOI would develop an integrated or coordinated icebreaking plan for the drill ships.

[45] We also note that, where one drill ship replaces the other in completing the same well (which is a scenario specifically identified in the record, *see, e.g.*, E-mail from Rodger Steen, Air Sciences Inc., to Dan Meyer, U.S. EPA Region 10 (Mar. 20, 2007)), the Region must provide an analysis of whether the common connections between, or dependence of, the two drill ships would require treating them as a single stationary source.

[46] "Significance levels" typically refer to the levels of ambient impact identified in a preliminary dispersion modeling below which a full dispersion or ambient impact analysis is not required.
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"there is a potential NAAQS violation from the combined emissions of the two within that close a proximity." Tr. at 62-63, 70-71. The Region also acknowledged that the record does not contain the analysis supporting the Region's conclusion regarding the relationship between a 500-meter perimeter and the identified potential NAAQS violations. Tr. at 66-67, 69.[47] The Region stated further that relying on a cumulative impacts analysis has not traditionally been one of the factors considered in making the contiguity or adjacency determination. Tr. at 74-75 ("The agency has traditionally not considered [cumulative impacts] in making these contiguous and adjacent determinations."). The Region also stated as follows:

> We have traditionally not considered emissions impacts in doing the analysis. It would be a departure from past agency practice on this issue to do so and would not necessarily comport with the intent of the regulatory definition of connoting what the common sense notion of a plant is.

Tr. at 77-78. Thus, we are left with the impression that the Region, itself, questions the one statement in the Response to Comments that was offered to explain or justify the 500-meter distance as establishing the outer boundary of the "stationary source."[48]

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See In re Prairie State Generating Co., 13 E.A.D. 1, 92 (EAB 2006). The significance levels, or "SILs," are set forth in table C-4 of the NSR Manual. NSR Manual at C.28 tbl. C-4.

[47] At oral argument, in response to a question whether "there [is] no analysis [the Board] can look to in the record where EPA wrote down * * * how it is [EPA] arrived at the conclusions that are in the Response to Comments" concerning the potential NAAQS violation and the 500-meter perimeter, the Region stated "[t]here is nothing beyond the Response to Comments." Tr. at 66-67. In addition, after explaining that the potential NAAQS violation was identified by SOI, the Region responded to a question whether "the calculations upon which Shell relied [are] included in the record," by stating "No." *Id.* at 69; *see also id.* at 100-01 (SOI stated, "As far as I know, that is not in the record" in response to questions whether the "data that underlies [SOI's request for a 500-meter limit] is in the record.").

[48] We reject SOI's offer of supporting data in its brief submitted after oral argument. *See* SOI Post-Argument Resp. at 29-31. We do not typically consider information submitted for the first time on appeal. The Region must document its decisionmaking as part of the permit decision itself and not for the first time on appeal. 40 C.F.R. § 124.18(c) (the "record shall be complete on the date the final permit is issued"); *In re Chem. Waste Mgmt.*, 6 E.A.D. 144, 151-52 (EAB 1995); *In re Amoco Oil Co.*, 4 E.A.D. 954, 964 (EAB 1993); *In re Waste Techs. Indus.*, 4 E.A.D. 106, 114 (EAB 1992). We likewise reject SOI's suggestion that we should deny review on the grounds that the analysis SOI's consultant reported orally to the Region "could be readily replicated and our results confirmed." *See* SOI's Errata to Post-Argument Resp., attach. 17 ¶ 3 (corrected). The Region apparently did not perform that confirmatory analysis before issuing its permitting decision.

In sum, the Region's cryptic and conclusory explanation set forth in its Response to Comments does not provide a basis upon which we can properly perform a review of the Region's conclusion that 500 meters is the "maximum distance between two OCS sources for * * * them to remain in close enough proximity so as to be considered contiguous or adjacent," i.e., as a single stationary source for which the potential emissions must be calculated. *Frontier Discoverer* Statement of Basis at 10; *Kulluk* Statement of Basis at 10. Accordingly, we cannot conclude that it meets the requirement of rationality, *DC MS4*, 10 E.A.D. at 342-43, and we must remand the Region's permitting decision to the Region to provide an explanation of its rationale, supported by record evidence, for establishing the 500-meter perimeter as defining the "stationary source." The Region should supplement the record as necessary during the remand process. Alternatively, the Region may decide to modify its determination as to what constitutes a single stationary source. If so, the Region must identify the relevant facts in the record that support its determination and provide a sufficient explanation for its new determination to show how it conforms to section 51.166(b). As necessary, the Region may reopen the record for additional public comment in relation to new material in accordance with 40 C.F.R. § 124.14. If Petitioners or other participants are not satisfied with the Region's explanation on remand, Petitioners and/or others with standing to appeal under 40 C.F.R. § 124.19 may appeal the Region's determination to this Board upon the Region's issuance of its permitting decision. Any appeal shall be limited to the issue being remanded and issues arising as a result of any modification the Region makes to its permitting decision on remand.

C. *Potential to Emit*

NSB objects to the Region's PTE calculations. According to NSB, the Region erred in the following respects: (1) the Region improperly based PTE on expected emissions, taking into consideration, among other things, assumptions regarding anticipated hours of operations and projected fleet activity, rather than calculating maximum emissions at the sources' design capacity; (2) the Region failed to demonstrate that SOI satisfied the regulatory requirements for approval of an ORL under the applicable Alaska regulations; and (3) the Permits' NO_x limitations are not federally or practically enforceable. NSB Pet. at 37-53. NSB further argues that the Region failed to provide to the public information necessary to evaluate SOI's PTE calculation. *Id*. at 33-37. For the reasons stated below, review is denied on these issues.[49]

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[49] In denying review on these issues, we note that the PTE calculation is inherently based on the determination of which emissions units must be included as part of a single stationary source. Since we are remanding the Region's stationary source determination, the Region's PTE calculation may be rendered obsolete in the event that the Region determines additional emissions must be included as a result of a change in the stationary source determination. In that event, the Region may

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1. *PTE Calculation*

NSB argues that the Board should review the permit determinations in this matter because the Region failed to require SOI to calculate PTE at the sources' maximum design capacity. NSB Pet. at 38. According to NSB, the Region erroneously relied on information containing "numerous assumptions that do not represent maximum emissions at design capacity because they are based on expectations given a particular set of assumptions about the conditions in the Beaufort Sea in 2007." *Id*. These "assumptions" include the number of days SOI expects drilling operations to continue and the expected operating loads for support vessels servicing the *Kulluk* and *Frontier Discoverer*. *Id*. at 38-40. According to NSB, PTE "must be based on maximum emissions at design capacity, not on a permit applicant's forecasts." *Id.* at 41.

NSB misconstrues the requirements for calculating a source's PTE. As stated above, a facility that otherwise exceeds the major source PTE threshold for a pollutant (250 tpy of NO_x) can nevertheless be considered a "minor source" for purposes of the PSD regulations if the permit includes a "federally enforceable" limitation. In this case, the Permits include an ORL limiting the sources' NO_x emissions to 245 tpy, below the major source threshold of 250 tpy. SOI's PTE calculation properly took this limitation into consideration. While NSB may have preferred that the Region require a calculation of SOI's maximum capacity to emit NO_x absent federally enforceable limitations, neither the Act nor the applicable regulatory provisions require such a calculation. Rather, SOI was required to calculate the sources' maximum capacity to emit a pollutant taking into consideration "[a]ny [federally enforceable] physical or operational limitation on the capacity of the source to emit a pollutant." 40 C.F.R. § 52.21(4). This is precisely what occurred in this case.[50] Under these circumstances, NSB has failed to convince us

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reissue a new PTE determination and persons with standing to appeal under 40 C.F.R. § 124.19 may appeal the Region's determination to this Board upon the Region's issuance of its permitting decisions.

[50] We note that the record in this matter contains conflicting statements as to whether PTE for NO_x would exceed 250 tpy in the absence of the ORL. In calculating what it refers to as "worst-case" potential emissions, SOI estimated emissions that could occur "under a source's real-life operating circumstances," taking into consideration assumptions such as each source's anticipated hours of operation. Using this approach, SOI concluded that its actual emissions are 245 tpy, the same figure as the ORL. *See* Appendix B to *Kulluk* and *Frontier Discover* Permit Applications; SOI Post-Argument Resp. at 23. The Region, however, has stated that, absent the ORL, NO_x emissions would be greater than 250 tpy. *See* Response to Comments at 20. The Region has also stated that SOI did not provide information regarding its unrestricted emissions. *See* Region's Resp. at 26. On remand, the Region may wish to clarify this discrepancy. We express no opinion on whether and to what extent the Region in the present case appropriately considered assumptions regarding such factors as expected hours of operation and projected fleet activity in calculating PTE.

that review is warranted.[51]

NSB has also argued that SOI failed to meet the requirements for obtaining an ORL under the applicable Alaska regulations because it failed to "provide a calculation of both potential to emit and actual emissions, and thus * * * failed to demonstrate the effect of the Permit limits on potential to emit." NSB Pet. at 41 (citing Alaska Admin. Code tit. 18, § 50.225(b)(2)-(3) (Owner-Requested Limits)). NSB is correct that Alaska regulations concerning the approval of an ORL require that the owner or operator provide a calculation of "actual emissions" as well as PTE.[52] However, where, as here, a source has not yet begun operations, "actual emissions" are considered the equivalent of PTE. 40 C.F.R. § 52.21(b)(21)(iv); Alaska Admin. Code tit. 18, § 50.990(1). Thus, when considering an ORL for a new source, the Region has construed the Alaska regulations as requiring only a calculation of PTE. The Division of Air Quality of the Alaska

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[51] NSB also asserts that it was prejudiced by the Region's failure to identify a March 8, 2007 submission by SOI in the Region's Statements of Basis for the *Kulluk* and *Frontier Discoverer* permits. The submission, entitled "Projected Fleet Activity Information," contains information regarding projected operating hours and loads for specific emissions units used in SOI's PTE calculations. NSB cites this document in the context of its argument that SOI erroneously failed to calculate emissions at maximum design capacity. However, because, as stated above, we conclude that NSB has misconstrued the regulations in this regard, we need not reach NSB's argument. Moreover, NSB has failed to convince us that it suffered any prejudice. That is, as stated above, NSB has objected to SOI's use of assumptions concerning, among other things, the hours of operation in calculating PTE and projected fleet activity, rather than calculating the sources' maximum potential to emit at design capacity. However, the use of such assumptions was clear from other documents in the record, including SOI's permit applications. *See, e.g.,* Appendix B to permit applications for *Kulluk* and *Frontier Discoverer* permits. Thus, we reject NSB's assertion that it was prejudiced by the Region's failure to identify the submission in the Statements of Basis.

[52] Under the applicable Alaska regulations, an applicant for an ORL must provide the following information:

> (2) A list of all emission units at the stationary source;
>
> (3) A calculation of the stationary source's actual emissions and [PTE]
>
> (4) A description of the proposed limit, including for each air pollutant a calculation of the effect the limit will have on the stationary source's [PTE] and the allowable emissions;
>
> (5) A description of a verifiable method to attain and maintain the limit, including monitoring and recordkeeping requirements;
>
> (6) Citation to the requirements that the person seeks to avoid, including an explanation of why the requirement would apply in the absence of the limit and how the limit allows the person to avoid the requirement.
>
> (7) A statement that the owner or operator of the stationary source will be able to comply with the limit.

Alaska Admin. Code tit. 18, §§ 50.540(j), .225(b)(2)-(7).

Department of Environmental Conservation ("ADEC") appears to have interpreted the regulation in the same way. In commenting on the draft permits, ADEC stated that, with certain revisions listed along with its comments, both permits were consistent with Alaska air quality statutes and regulations. *See* ADEC Comments on Draft Permits at 1. ADEC specifically mentioned the regulatory requirements for obtaining an ORL under the above-cited Alaska regulations but did not object to the Permits' inclusion of the ORL in this case.[53] Under these circumstances, NSB has failed to convince us that the Region's interpretation was clearly erroneous. *See In re Teck Cominco Alaska, Inc.*, 11 E.A.D. 457, 489 (EAB 2004) (stating that the Board generally gives substantial deference to a state's interpretation of its own laws). Review is therefore denied on this issue.

2. *Federal Enforceability*

NSB argues that the Permits' NO_x limitations are not enforceable as a practical matter because the limitations are not accompanied by adequate monitoring provisions allowing regulators to determine whether or not SOI is meeting the NO_x limitations and to ensure compliance with these limitations.[54] NSB Pet. at 41-53. However, because this issue was reasonably ascertainable but was not raised during the comment period on the draft permits, it was not preserved for review with this Board.[55] *See In re BP Cherry Point*, 12 E.A.D. 209, 216

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[53] ADEC's only comment on SOI's compliance with the requirements for obtaining an ORL was whether all emissions sources (specifically, crude oil flares, gas flares, crude vents, and gas vents) had been included in the permit applications. ADEC Comments at 2.

[54] In addition to requiring conditions and limitations directly enforceable by regulators at both the federal and state level (*see* 40 C.F.R. § 52.21(b)(17)), the term "federal enforceability" has been interpreted as requiring practical enforceablity as well. That is, the permit must include conditions allowing the applicable enforcement authority to show continual compliance (or non-compliance) such as adequate testing, monitoring, and record keeping requirements. *See, e.g.*, NSR Manual at A.5-.6.

[55] In order to preserve an issue for appeal, the regulations require any petitioner who believes that a permit condition is inappropriate to demonstrate that it or any other commenter raised "all reasonably ascertainable issues and * * * all reasonably available arguments supporting [petitioner's] position" during the comment period on the draft permit. 40 C.F.R. §§ 124.13, .19(a); *In re BP Cherry Point*, 12 E.A.D. 209, 216 (EAB 2005); *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 249 (EAB 1999). The purpose of such a provision is to "ensure that the Region has an opportunity to address potential problems with the draft permit before the permit becomes final, thereby promoting the longstanding policy that most permit decisions should be decided at the Regional level, and to provide predictability and finality to the permitting process." *In re New England Plating Co.*, 9 E.A.D. 726, 732 (EAB 2001); *In re Sutter Power Plant*, 8 E.A.D. 680, 687 (EAB 1999) . The burden of demonstrating that an issue has been raised during the comment period rests with the petitioner, and "it is not incumbent upon the Board to scour the record to determine whether an issue was properly raised below." *Encogen*, 8 E.A.D. at 250 n.10. The Board has also emphasized that petitioners must raise issues with a reasonable degree of specificity and clarity during the comment period in order for the issue to be preserved for review. *In re Carlota Copper Co.*, 11 E.A.D. 692 (EAB 2004); *New England Plating*, 9 E.A.D. at 732; *In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 230-31 (EAB 2000); *In re Maui*

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(EAB 2005).

While several commentors raised generalized concerns regarding appropriate monitoring, the issue of whether or not the ORL is "practically enforceable" within the meaning of the regulations and whether the alleged lack of enforceability affects the validity of the ORL was not raised with the requisite specificity this Board has consistently required. In its response, NSB asserts that the issue was raised by several commentors. In particular, NSB states that the following comments "generally raise" the issue of enforceability: (1) NSB's comment that the NO_x limit of 245 tpy left "little room for error," NSB Reply at 20; and (2) NSB's comment that "total emissions can easily exceed 250 tpy at any single well if it takes longer than 59 days to drill, heavy ice conditions are encountered, if any of SOI's operating restriction assumptions are incorrect, or if a relief well is required." *Id*. In addition, NSB cites to general public comments that there is "no monitoring on site" and "a question about how SOI will handle emissions that are higher than planned or permitted." *Id*. at 21. However, because none of these comments identify any nexus between the Permits' monitoring requirements and SOI's status as a minor source, or refer to the regulatory requirement that the ORL be federally enforceable, they do not contain the degree of specificity necessary to alert the Region to the issue NSB now raises on appeal.[56] On the contrary, these comments appear only to ask for general clarification on how the Region intends to monitor compliance. The Region responded appropriately to these comments.[57]

The requirement that an issue must have been raised during the public comment period in order to preserve it for review is not an arbitrary hurdle placed in the path of potential petitioners. *See In re City of Marlborough*, 12 E.A.D. 235, 244 n.13 (EAB 2005); *BP Cherry Point*, 12 E.A.D. 209, 219 (EAB 2005). Rather, the requirement serves an important function related to the efficiency and integrity of the overall administrative permitting scheme. *Marlborough*, 12 E.A.D. at

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Elec. Co., 8 E.A.D. 1, 9 (EAB 1998). On this basis, the Board has often denied review of issues raised on appeal that were not raised with the requisite specificity during the public comment period. *See, e.g., New England Plating*, 9 E.A.D. at 732-35; *Maui*, 8 E.A.D. at 9-12; *In re Fla. Pulp & Paper Ass'n*, 6 E.A.D. 49, 54-55 (EAB 1995).

[56] We note that the Region's response to comments on the draft permits does not address the issue of federally enforceability. Thus, the Region did not interpret comments on the draft permits as raising the issue.

[57] NSB also cites to a comment submitted by ADEC stating that the Permits needs additional conditions to ensure the accuracy of the sources' fuel monitoring equipment. *See* NSB Reply at 20 (citing ADEC Comments on Draft Permit at 2). Again, this comment did not make reference to the federal enforceability requirement and thus did not serve to put the Region on notice of the issue now raised by NSB. Further, the Region responded to this comment by adding permit conditions requiring that fuel flow monitoring equipment achieve and maintain a minimum level of accuracy. *See* Response to Comments at 24. This appears to have resolved the issue to ADEC's satisfaction.

244 n.13. The intent of the rule is to ensure that the permitting authority first has the opportunity to address permit objections, and to give some finality to the permitting process. *Id.*; *Sutter Power Plant*, 8 E.A.D. at 687. As we have explained, "[t]he effective, efficient and predictable administration of the permitting process demands that the permit issuer be given the opportunity to address potential problems with draft permits before they become final." *In re Teck Cominco*, 11 E.A.D. 457, 481 (EAB 2004) (quoting *Encogen*, 8 E.A.D. at 250). "In this manner, the permit issuer can make timely and appropriate adjustments to the permit determination, or, if no adjustments are made, the permit issuer can include an explanation of why none are necessary."[58] *In re Essex County (N.J.) Res. Recovery Facility*, 5 E.A.D. 218, 224 (EAB 1994). Under these circumstances, review is denied.

D. *Modeling*

Alaska's regulations require an applicant for a minor source permit to submit along with its application "a demonstration that the proposed potential emissions from the stationary source will not interfere with the attainment or maintenance of the ambient air quality standards." Alaska Admin. Code tit. 18, § 50.540(2). The regulations require such a demonstration for NO_X and sulfur dioxide, among other pollutants, if the source has a potential to emit more than 40 tpy of those pollutants, and for particulate matter, if the source has a potential

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[58] We note that the Region determined that both the *Kulluk* and *Frontier Discoverer* permits include sufficient testing, monitoring, and reporting requirements to track emissions on a regular and frequent basis in order to verify compliance and take appropriate action if the sources are approaching noncompliance with the NO_x limit. In this regard, the Region stated that:

> [Ninty-five percent] of the NO_x emissions is generated by [the] main drilling engines and propulsion engines on icebreakers. The resultant permit contains adequate monitoring, recordkeeping and reporting to verify compliance with the [245 tpy NO_x limit]. Shell is required to determine NO_x emissions weekly, and emissions from each emissions unit will be determined by employing emission factors. Shell has grouped emissions into categories, and certain categories emissions units contribute more significantly to the emissions cap than others. Per source group, Shell will track emissions by either monitoring fuel usage once every 7 days or by monitoring an individual unit's load once every 15 minutes. For source groups contributing significant NO_x emissions, stack testing is required to determine a group-specific emissions factor. For those units employing post combustion air pollution control technology, Shell is required to determine whether the control device is operating every 15 minutes.

Frontier Discoverer Statement of Basis at 21; *see also Kulluk* Statement of Basis at 22. Thus, the Region concluded that Permits, as written, provide for sufficient monitoring and will ensure compliance with the NO_x limitation. Because we conclude that the NSB has failed to preserve this issue for review, we do not reach the merits of this issue.

to emit more than 15 tpy of that pollutant. *Id.* § 50.502(c)(1). The Region required SOI to demonstrate compliance with the NAAQS for NO_X, sulfur dioxide, and particulate matter. *Frontier Discoverer* Statement of Basis at 14; *Kulluk* Statement of Basis at 13.

NSB requests review of the Region's decision to accept SOI's ambient air quality analysis as demonstrating that the Permits will not cause or contribute to violations of the applicable NAAQS for NO_X, sulfur dioxide, and particulate matter. NSB argues that the air quality models used by SOI are invalid, that SOI failed to include all emissions units for each stationary source in its data inputs, and that SOI failed to include adequate background air quality data. NSB Pet. at 54-55. In particular, with respect to the choice of an air quality modeling program, NSB objects that the Region failed to explain why it approved SOI's use of the "ISC-PRIME" modeling analysis, which NSB contends is not a preferred or recommended model. *Id.* at 55-56. NSB further contends that the Region should have required SOI to utilize the MMS' Offshore Coastal Dispersion model, which NSB argues would have been more appropriate for the offshore location at issue. *Id.* at 56. NSB also maintains that SOI's modeling included only "2 engines and 1 boiler" for the *Kulluk*, which actually has "3 main engines and 2 boilers," and that certain support vessels were not included in SOI's second model run. *Id.* at 56-57. With respect to background data, NSB argues that the location from which the Region obtained background data does not accurately reflect background concentrations in the area of SOI's proposed operations. *Id.* at 57-58.

Upon consideration, we conclude that NSB has not sustained its burden of proving clear error with respect to these highly technical matters. When a petitioner seeks review based on issues that are fundamentally technical in nature, the Board assigns a particularly heavy burden to the petitioner. *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33 (EAB 2005); *see In re Carlota Copper Co.*, 11 E.A.D. 692, 708 (EAB 2004) (explaining that "a petitioner seeking review of issues that are technical in nature bears a heavy burden because the Board generally defers to the Region on questions of technical judgment"); *In re Teck Cominco Alaska Inc.*, 11 E.A.D. 457, 473 (EAB 2004) (same). As we explained in *Peabody*, "this demanding standard serves an important function within the framework of the Agency's administrative process; it ensures that the locus of responsibility for important technical decisionmaking rests primarily with the permitting authority, which has the relevant specialized expertise and experience." *Peabody*, 12 E.A.D. at 33; *see also In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567-68 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). Thus, "when issues raised on appeal challenge a Region's technical judgments, clear error or a reviewable exercise of discretion is not established simply because petitioners document a difference of opinion or an alternative theory regarding a technical matter. In cases where the views of the Region and the petitioner indicate bona fide differences of expert opinion or judgment on a technical issue, the Board typically will defer to the Region." *NE Hub*, 7 E.A.D. at 567; *accord*

Peabody, 12 E.A.D. at 33; *see also In re Envotech, L.P.*, 6 E.A.D. 260, 284 (EAB 1996) ("absent compelling circumstances, the Board will defer to a Region's determination of issues that depend heavily upon the Region's technical expertise and experience"); *In re Gen. Elec. Co.*, 4 E.A.D. 358, 375 (EAB 1992) (same). Accordingly, when the Board is presented with conflicting expert opinions over technical issues, "we look to determine whether the record demonstrates that the Region duly considered the issues raised in the comments and whether the approach ultimately adopted by the Region is rational in light of all the information in the record." *D.C. MS4*, 10 E.A.D. 323, 348 (EAB 2002); *accord NE Hub*, 7 E.A.D. at 568. Where a permitting authority has responded to public comments demonstrating that it, in fact, considered technical issues raised in the public comments, we will normally not substitute our judgment for the technical expertise of the permitting authority, particularly where the petition demonstrates only disagreement among experts. *In re Cardinal FG Co.*, 12 E.A.D. 153 (EAB 2005).

In the present case, the issues NSB raises regarding the Region's approval of SOI's air quality modeling and analysis are all technical in nature and do not demonstrate clear error in the Region's Response to Comments. In particular, with respect to the choice of model, the Region explained as follows:

> The Industrial Source Complex (ISC) model used to predict ambient air quality impacts was originally developed in 1978. However, EPA has maintained the model or program by providing revisions and adding new features to make the model more functional. For example, several years ago EPA added a new feature into the program that better characterizes plume flow around and over buildings. The model was subsequently renamed ISC-PRIME.
>
> In addition, it is important to note that before EPA releases any revisions or new features in a model, the revisions or new features, if applicable, are thoroughly evaluated, compared with actual data, and peer reviewed. * * * Shell modeled the project emission sources using a screening technique and worst meteorological conditions. These models are EPA accepted and were implemented in accordance with EPA regulations.

Response to Comments at 31-32. The Region also explained that "Shell followed Section 2.3 of the Guideline on Air Quality Models in predicting the air pollutant impacts" and that "Shell used the SCREEN3 model to predict ambient pollutant concentrations" and subsequently "the ISC-PRIME model with the SCREEN3 meteorology in order to quantify ambient concentrations in the wake cavity." *Id.* at 35. In addition, the Region stated that "[t]he screening methods used by Shell to

model the project's emissions are considered appropriate for the arctic climate." *Id.* at 32.

NSB's arguments on appeal do not show clear error in these explanations that the model SOI used is an EPA-approved model, appropriate for the Arctic, and that it was implemented in accordance with the applicable regulations and guidance. To sustain its burden, "petitioners must include specific information in support of their allegations. It is not sufficient simply to repeat objections made during the comment period; instead, a petitioner 'must demonstrate why the [permit issuer's] response to those objections * * * is clearly erroneous or otherwise warrants review.'" *In re Steel Dynamics, Inc.*, 9 E.A.D. 710, 744 (2001) (quoting *In re LCP Chems.*, 4 E.A.D. 661, 664 (EAB 1993)); *accord In re Tondu Energy Co.*, 9 E.A.D. 710, 714 (EAB 2001). Although NSB may have preferred that the Region require use of another model, such as the MMS' Offshore Coastal Dispersion model, NSB's burden is to demonstrate that the model selected is clearly erroneous, which NSB has failed to do.

With respect to NSB's contention that SOI failed to include all emissions units for each stationary source in its data inputs, NSB Pet. at 56-57, the Region explained as follows in its Response to Comments:

> All sources proposed for routine operations were considered in the air quality modeling analysis. Emissions from emergency or upset conditions are generally not considered in the air quality impact analysis for NSR permits.

Response to Comments at 35. NSB has not alleged or demonstrated clear error in this Response to Comments. In particular, NSB has not demonstrated that any omitted emissions units will be operated in conditions other than emergency or upset conditions, or that the Region is incorrect in stating that emissions from emergency or upset conditions are generally not considered in the air quality analysis. Accordingly, NSB has failed to demonstrate clear error in the Region's decision. *See In re Newmont Nev. Energy Inv., L.L.C.*, 12 E.A.D. 429, 437-38 (EAB 2005) (to obtain review, a petitioner must demonstrate why the permit issuer's response to comments is clearly erroneous or otherwise warrants review); *see also In re Steel Dynamics, Inc.*, 9 E.A.D. 740, 744 (EAB 2001).

With respect to background data, we reject NSB's argument that the location from which the Region obtained background data does not accurately reflect background concentrations in the area of SOI's proposed operations. NSB

Pet.at 57-58.[59] NSB has not shown clear error in the Region's technical judgment that the background air quality data selected are representative of the location of SOI's proposed operations. Specifically, the Region explained that "EPA determined that collecting site specific air quality data is unnecessary for Shell's proposed project" and that "air quality data collected at Badami met EPA's quality assurance requirements and are adequately representative of background levels in the impact area of the proposed sources." Response to Comments at 33. Moreover, the Region specifically rejected the suggestion that air quality data collected at Kuparuk would be more representative. *Id.* at 35. In particular, the Region explained that "because of existing local industrial sources in the Kuparuk area, the Kuparuk air quality data are not considered adequately representative, and are expected to be higher than levels in the proposed project area." *Id.*

Where, as here, the permitting authority has responded to public comments and demonstrated that it, in fact, considered the technical issues raised in the public comments and adequately explained its technical conclusions, we will normally not substitute our judgment for the technical expertise of the permitting authority. *In re Cardinal FG Co.*, 12 E.A.D. 153 (EAB 2005). Generally, while it is important that air quality data be representative, the choice of appropriate data sets for the air quality analysis is largely left to the discretion of a permitting authority, absent some indication of non-representativeness. *See In re Encogen Cogeneration*, 8 E.A.D. 244, 256 (EAB 1999) (holding that in conducting air quality assessment, the permitting authority is not required to obtain site-specific data; instead it may use representative data gathered from off-site locations and/or gathered from time periods other than the year immediately preceding the permit application); *Haw. Elec. Light Co.*, 8 E.A.D. 66, 98 (EAB 1998) (citing *In re Hibbing Taconite Co.*, 2 E.A.D. 838, 851 (Adm'r 1989) (denying review of permitting authority's decision to use "representative" off-site data, rather than requiring pre-application, on-site air monitoring)); *accord In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 147 (EAB 1999) (upholding permitting authority's exercise of discretion in exempting permit applicant's collection of pre-construction, on-site ambient air data or meteorological data)*; In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 128 (EAB 1997). Here, Petitioners' comments and objections do not pose a serious challenge to the representativeness of the air quality

[59] NSB raises an additional argument in its Petition concerning the air quality modeling that appears not to have been raised during the public comment period. In particular, NSB argues that the air quality modeling for each drill ship should, but did not, include projected emissions for SOI's other drill ship when operating nearby. NSB Pet.at 57-58. NSB's Petition does not state that this issue was raised in the public comment period, and it does not cite to any public comments in which the issue was raised. Accordingly, NSB has not sustained its burden of demonstrating that this issue was preserved for review. The burden of demonstrating that an issue has been raised during the comment period rests with the petitioner: "It is not incumbent upon the Board to scour the record to determine whether an issue was properly raised below." *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 n.10 (EAB 1999). Accordingly, review of this issue is denied.

data set used. Accordingly, we deny review of these issues.[60]

E. *Public Participation*

NSB argues that the Region denied communities affected by the SOI permits an opportunity for meaningful participation in the permitting process by scheduling a public hearing and comment period on the draft permits during the spring subsistence harvest period. NSB Pet. at 59. NSB states that despite its objections, the Region held the public hearing in the Nuiqsut, Alaska on May 8, 2007, "and no further public hearings in other affected villages were scheduled." *Id* at 60. NSB further contends that the Region failed to provide communities with sufficient information,[61] and failed to satisfy its obligation under Executive Order Number 13,175 ("EO 13,175") to work and consult with recognized tribal governments.[62] *Id*. at 63-64. None of these assertions convinces us that review is warranted.

In responding to comments on the issue of whether the Region should have rescheduled the public hearing, the Region stated that, for the reasons set forth in a May 8, 2007 letter to NSB, it had declined to alter the hearing schedule. Response to Comments at 81; *see* Letter from Richard Albright, Director, Office of Air, Waste and Toxics, Region 10 to Johnny Aiken, Director, NSB Planning Department (May 8, 2007) ("May 8 Letter"). The May 8 Letter states, in part:

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[60] In denying review on these issues, we note that the air quality modeling is inherently based on the determination of which emissions units must be included as part of a single stationary source. Since we are remanding the Region's stationary source determination, the Region's determination regarding the air quality modeling may be rendered obsolete in the event that the Region determines additional emissions must be included as a result of a change in the stationary source determination. In that event, the Region may reissue a new air quality modeling determination and persons with standing to appeal under 40 C.F.R. § 124.19 may appeal the Region's determination to this Board upon the Region's issuance of its permitting decision.

[61] According to NSB, the information relates to the historical basis for assumptions concerning operating hours and equipment use for the drill ships. *See* NSB Pet. at 62-63. Although not entirely clear from the Petition, it appears that NSB sought this information in connection with its argument that SOI's PTE calculations for NO_x were flawed because SOI failed to calculate the sources' emissions based on maximum design capacity. As stated above, however, NSB has misconstrued the regulations regarding the method for calculating a source's PTE. That is, neither the Act nor the applicable regulations require a source to calculate its maximum emission capacity without regard to a federally enforceable limitation (the ORL in this case). Thus, even if NSB is correct that SOI's assumptions understate actual NO_x emissions, the Permits' inclusion of the ORL along with appropriate monitoring ensures that the sources' PTE will remain below the major source threshold.

[62] EO 13,175 (Consultation and Coordination with Indian Tribal Governments) relates to the establishment of "regular and meaningful consultation and collaboration with tribal officials on the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes * * * ." 65 Fed. Reg. 67,249 (Nov. 9, 2000).

> In making this decision, I recognize that we must carefully balance competing interests. We acknowledge and respect the importance of providing North Slope communities the opportunity to express their concerns regarding potential impacts that these projects may have on their subsistence lifestyle and I am concerned about the difficulty of North Slope residents doing so during the spring hunt. At the same time, however, I also considered that expediting energy related projects is a national priority, and that conditions on the North Slope are such that extending our permitting process would delay exploration activity for an entire year. Additionally, I took into account the amount of information-sharing and other communication that has already occurred with the NSB regarding these permits. After careful consideration of these and other factors, EPA decided not to defer the public hearing or to extend the public comment period.

May 8 Letter at 1. Because NSB has failed to demonstrate why the Region's response in this regard was clearly erroneous, review is denied on this issue.[63] Further, the record before us indicates, and NSB does not dispute, that the Region complied with all regulatory requirements regarding public notice and public comment. *See* 40 C.F.R. part 124. Indeed, in its Reply, NSB concedes that the Region "satisfied the minimum requirements for public notice and comment under the applicable permitting regulations." NSB Reply at 26. While the Region certainly could have rescheduled the public hearing and extended the comment period, nothing in NSB's petition or in the record before us convinces us that the Region's decision not to do so in this case was clearly erroneous or otherwise warrants review by this Board. *See In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 17 (EAB 2000) (permit issuer need not go beyond regulatory requirements in providing for public participation).

With respect to NSB's argument that the Region failed to satisfy its obligation to consult with tribal governments under EO 13,175, we conclude that even if EO 13,175 is applicable in the present context, the Region has satisfied its obligations in this regard.[64] In particular, as the Region has stated in its Response to

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[63] *See In re Newmont Nev. Energy Investment, L.L.C.*, 12 E.A.D. 429, 437 (EAB 2005) (to obtain review, a petitioner must demonstrate why the permit issuer's response to comments is clearly erroneous or otherwise warrants review); *see also In re Steel Dynamics, Inc.*, 9 E.A.D. 740, 744 (EAB 2001).

[64] As previously stated, EO 13,175 relates to the establishment of "regular and meaningful consultation and collaboration with tribal officials on the development of Federal policies that have tribal implications." 65 Fed. Reg. 67,249 (Nov. 9, 2000). The EO defines "policies that have tribal

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Comments on this issue, community input was sought out and encouraged. *See* Response to Comments at 79. The Region states that it "sent a letter and fact sheet to the Presidents, Chairman, Village Coordinator, and First Chiefs of 30 federally-recognized tribes, inviting tribes to initiate government-to-government consultation if they desired." *Id*. Further, the Region states that it widely distributed SOI's permit applications, draft permits, and the Statement of Basis for both permits, and made copies of relevant materials available for public review. *Id*. In addition, the Region points out that on May 8, 2007, the Region held an informal session for questions and answers in Nuiqsut, Alaska, followed by a public hearing in which community members provided oral and written comments. Finally, the Response to Comments states that:

> [The Region] acknowledges that the federal government has a trust responsibility to federally-recognized Tribes and Alaska Native Villages. EPA believes its actions have been consistent with its responsibility to consult on a government-to-government basis. EPA offered an opportunity to provide their views and concerns on the proposed permit and has fully considered the issues raised by the Native Villages prior to issuing the final permit to SOI. Thus, EPA is satisfied that it has consulted with the affected Alaska Native Communities consistent with its trust responsibility while fulfilling its duties under the CAA.

Response to Comments at 80. Because NSB has failed to convince us that the Region's Response to Comments on this issue was clearly erroneous or otherwise warrants review, review is denied on this issue.

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implications" as "regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes * * *." SOI has argued that because permitting actions, such as the ones at issue in this case, are not included in this definition, the Executive Order is inapplicable in the present context. *See* SOI's Corrected Resp. at 61. SOI points out that in a draft guidance for implementing EO 13,175, the Agency has stated that permitting actions "to the extent that they do not in and of themselves require any action or compliance by Tribal governments, * * * will not have direct effects on such governments and thus will not have Tribal implications." 71 Fed. Reg. 20314, 20328 (April 19, 2006) (Draft Guidance for Implementing Executive Order 13,175). This document further states that "permits issued to non-Tribal facilities would generally be considered as not having Tribal implications even if the facility is located in or near Indian country or some other areas of interest to a Tribal government since any effect on the Tribe would be indirect in nature." *Id*. However, because we conclude that the Region has satisfied its obligations regarding Tribal consultation, we need not reach the issue of whether EO 13,175 would apply to the issuance of these Permits.

F. *Environmental Justice*

NSB asserts that the Region failed to perform an adequate environmental justice analysis under Executive Order 12,898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." *See* Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994) ("EO 12,898"). EO 12,898 instructs federal agencies to address, as appropriate, "disproportionately high and adverse human health and environmental effects of [their] programs, policies, and activities on minority and low-income populations * * *." *Id*. NSB argues that the Region violated this order by failing to conduct a comparative analysis on the effects of the Permits on the minority population in the North Slope Borough. In addition, NSB asserts that the Region failed to provide an adequate opportunity for public comment and provided an inadequate response to public comments. NSB Pet. at 68, 70-72. We disagree.

The record before us indicates that the Region considered NSB's environmental justice concerns and concluded that the Permits would not have an adverse impact on minority or low income populations. In particular, the Region determined that the Permits:

> [W]ill not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because [they do] not affect the level of protection provided to human health or the environment. As explained above in EPA response to comment D-2, the final permits are designed to meet the requirements of the CAA, and to protect the people and natural resources of the Alaska Native Villages. The emission limits contained in a number of specific permit terms and conditions are expected to curb air pollution sufficiently so that air quality in the region continues to attain the NAAQS, national standards which EPA has established to protect human health and the environment. The permits also contain additional requirements that are necessary or appropriate to protect human and environmental health, in accordance with EPA's authorities under the CAA. EPA expects that these requirements will provide a verifiable means of ensuring that the Shell exploratory drilling project complies with the federal CAA and is operated in a manner that protects the health and welfare of the Native Villages and their resources.

Response to Comments at 78. Given its determination that emissions under the terms and conditions of the final Permits in this case would not result in a violation of the NAAQS, the Region concluded that there would be no adverse impact

on minority and low-income communities. *See id*. at 92 (explaining that the maximum projected air quality impacts of the proposed project combined with background air pollution levels are less than the NAAQS and that the project will not have an adverse impact upon public health.).[65] Nothing in NSB's petition convinces us that the Region's determination in this regard was clearly erroneous.

As the Region points out, the NAAQS are the Agency's standards, designed to protect human health and welfare with an adequate margin of safety. *See* CAA § 109(b), 42 U.S.C. § 7409(b). Because EO 12,898 concerns itself with effects that are "adverse," and because the Region has determined that no such adverse effects cognizable under the PSD permit program will result from the issuance of the Permits in this case, we need not address NSB's argument regarding the need for an additional comparative analysis. *See In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 16-17 (EAB 2000) (stating that, given finding of no adverse impact based on conclusion that additional pollutants will not result in exceedance of NAAQS or PSD increment, the Board need not address objections to numerous aspects of Region's environmental justice analysis); *see also In re Ash Grove Cement Co.*, 7 E.A.D. 387, 414 (EAB 1997) (holding that in light of Region's determination that minority and low-income populations are outside the area principally impacted by emissions, it was not unreasonable for the Region to choose not to engage in additional analyses). Finally, as stated above, the record before us indicates that the Region has complied with its statutory and regulatory obligations regarding public notice and comment. Accordingly, review is denied.[66]

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[65] In responding to concerns regarding air quality, the Region also stated:

> EPA is not aware of an existing air quality problem that needs to be addressed in this instance. Rather, ambient air on the North Slope of Alaska is achieving the NAAQS. [SOI] has demonstrated that its emissions will not cause or contribute to an exceedance of the NAAQS for NO_2, PM_{10}, and SO_2 at the edge of the drillships out on the OCS at least 3 miles offshore. The approach taken fully satisfies applicable CAA requirements.

Response to Comments at 62.

[66] We note that in response to comments expressing concern about the impact of SOI's activities on the bowhead whale migration patterns and the resulting impacts on subsistence hunting, the Region stated:

> EPA understand[s] the heartfelt concerns expressed regarding SOI's potential impact on the bowhead whale migration patterns and other potential impacts to the Inupiat subsistence hunting and fishing and interference with the traditional lifestyle. However, as explained in EPA's response to comment Category D above, EPA analysis indicates that this project, as regulated by the terms and conditions in the final permit, will not cause or contribute to a NAAQS violation. Since NAAQS are estab-

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III. *CONCLUSION*

The Permits are remanded on the sole issue of the "stationary source" the Region identified for purposes of determining whether PSD permits would be required for SOI's proposed activities on the OCS. On remand, the Region must provide an explanation of its rationale, supported by record evidence, for establishing a 500-meter perimeter as defining the "stationary source." The Region should supplement the record as necessary during the remand process. Alternatively, the Region may decide to modify its determination as to what constitutes a single stationary source. If so, the Region must identify the relevant facts in the record that support its determination and provide a sufficient explanation for its new determination to show how it conforms to 40 C.F.R. § 51.166(b). As necessary, the Region may reopen the record for additional public comment in relation to new material in accordance with 40 C.F.R. § 124.14. If Petitioners or other participants are not satisfied with the Region's explanation on remand, Petitioners and/or others with standing to appeal under 40 C.F.R. § 124.19 may appeal the Region's determination to this Board upon the Region's issuance of its permitting decisions. Any appeal shall be limited to the issue being remanded and issues arising as a result of any modification the Region makes to its permitting decisions on remand. Review is denied on all other issues.

So ordered.

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lished to protect public health, the project will not have an adverse impact upon public health.

Response to Comments at 89. The Board expresses no opinion on the Region's determination in this regard. Issues such as impacts on subsistence hunting and fishing are outside the scope of the PSD program and therefore the Board's jurisdiction. *See In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 161-62 (EAB 1999) (stating that the Board's jurisdiction, and thus review power, is limited, extending only to those issues that are directly related to permit conditions that implement the federal PSD program). However, other regulatory programs are in place to address Petitioners' concerns in this regard.