IN RE SHELL GULF OF MEXICO, INC. & SHELL OFFSHORE, INC.

OCS Appeal Nos. 11-02, 11-03, 11-04 & 11-08

ORDER DENYING REVIEW

Decided January 12, 2012

Syllabus

This decision addresses petitions for review that challenge two Outer Continental Shelf ("OCS") Prevention of Significant Deterioration ("PSD") permits ("Permits") Region 10 ("Region") of the U.S. Environmental Protection Agency ("Agency") issued to Shell Gulf of Mexico, Inc. and Shell Offshore, Inc. (collectively, "Shell"). The Permits, issued on September 19, 2010, pursuant to section 328 of the Clean Air Act ("CAA"), 42 U.S.C. § 7627, authorize Shell to "construct and operate the Noble Discoverer drillship and its air emission units and to conduct other air pollutant emitting activities" within Shell's lease blocks in the Chukchi and Beaufort Seas off the North Slope of Alaska. The Permits also provide for the use of an associated fleet of support ships, including icebreakers, supply ships, and oil spill response vessels in addition to the *Discoverer*.

These two Permits are before the Board following the Region's post-remand proceedings. In the previous appeal, the Board denied review of one issue, but remanded both permits in their entirety to the Region for further consideration of two issues: the Region's determination of when the drillship becomes an OCS source and the Region's analysis of the impact of nitrogen dioxide ("NO_2") emissions on Alaska Native "environmental justice" communities located in the affected areas. *See In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 103 (EAB 2010). Shortly thereafter, and at the Region's request, the Board issued another decision addressing four additional issues that it had not addressed in the December 2010 decision. *See In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 193, 195 (EAB 2011).

The Board received four petitions for review of the Permits. Two were filed by groups, one by the Native Village of Point Hope, Resisting Environmental Destruction of Indigenous Lands ("REDOIL"), Alaska Wilderness League, Center for Biological Diversity, Natural Resources Defense Council, Northern Alaska Environmental Center, Ocean Conservancy, Oceana, Pacific Environment, Sierra Club, and The Wilderness Society (collectively, "NVPH Petitioners"), and the other by the Inupiat Community of the Arctic Slope ("ICAS") and the Alaska Eskimo Whaling Commission ("AEWC"). AEWC later requested that it be allowed to withdraw from this matter, a request the Board grants in today's decision. ICAS, therefore, remains as sole petitioner for that appeal. A third petition was filed by Mr. Daniel Lum. In addition, Ms. Donna Arvelo filed a document that the Board construed as a petition. Ms. Arvelo's petition, however, was filed late. The Board therefore dismisses it in today's decision as untimely.

The three remaining petitions collectively raise seven issues for review. Two of the issues – a challenge to the Region's OCS source determination and a challenge to the Region's environmental justice analysis – are the same issues the Board remanded in its December 2010 decision. The Board's scope of review is limited to issues the Board remanded, issues raised in the previous appeals of these Permits but not addressed by the Region, and changes to the Permits required by intervening changes in the law or made during the remand period. Petitioners raise five new issues that arise from the remand proceedings: (1) Did the Region clearly err in adopting Shell's ambient air quality analysis? (2) Did the Region clearly err in determining that the 1-hour NO_2 national ambient air quality standard ("NAAQS") would be met without separately determining compliance with the "maximum allowable concentration" of NO_2? (3) Did the Region clearly err in its ambient air exemption determination? (4) Did the Region abuse its discretion in declining to include additional permit limitations on methane emissions? (5) Did the Region clearly err or abuse its discretion in only providing 30 days to comment on the concurrently issued draft Chukchi and Beaufort Permits during the remand period?

Held: The Board denies review of the Permits. Petitioners have not met their burden of demonstrating that review is warranted on any of the grounds presented.

(1) OCS Source Determination. The Board concludes that ICAS has failed to demonstrate that the Region's determination of when the *Discoverer* becomes, and ceases to be, an OCS source is clearly erroneous. The Region's determination of when the *Discoverer* becomes, and ceases to be, an OCS source in the context of these Permits shows that the Region adhered to the Board's directions on remand and undertook a cogent, well-reasoned analysis of the statutory and regulatory requirements for an OCS source and reasonably applied that analysis to the *Discoverer* drillship. ICAS's proposed definition of the OCS source is not supported by the language of the statutes and the regulation that define the OCS source.

(2) Environmental Justice Analysis. The Board concludes that ICAS and Mr. Lum have not demonstrated that the Region failed to satisfy its obligations to comply with Executive Order 12898 and applicable Board precedent. The Region complied with the Board's instruction on remand and conducted a supplemental environmental justice analysis that endeavored to include and analyze data that is germane to the environmental justice issues raised during the comment period. In the several arguments they put forth in their petitions, ICAS and Mr. Lum do not demonstrate how the Region's responses to comments are inadequate, overcome the particularly heavy burden a petitioner must meet to demonstrate that review of the Region's technical decisions is warranted, raise issues within the Board's limited scope of review on remand, or raise issues within the Board's jurisdiction.

(3) Ambient Air Quality Analysis. NVPH Petitioners contend that Shell's ambient air quality analysis was flawed in that it failed to conform to applicable Agency guidance. Upon examination of the administrative record, the Board concludes that NVPH Petitioners failed to raise this issue during the comment period. This issue, therefore, was not preserved for review.

(4) NO_2 NAAQS Analysis. NVPH Petitioners assert that the Region violated section 165(a)(3) of the CAA by failing to require that Shell demonstrate that its NO_2 emissions will not cause pollution in excess of the 100 ppb maximum allowable concentration level. Upon examination of the administrative record, the Board concludes that NVPH Petitioners did not raise this specific issue in their comments on the draft permit. This issue, therefore, was not preserved for review.

(5) Ambient Air Exemption Determination. The Board concludes that NVPH Petitioners have not shown that the Region clearly erred in its decision to exempt the area within a 500 meter radius from the *Discoverer* – the area within the U.S. Coast Guard safety zone – from the definition of "ambient air." The Region, in its Response to Comments document, provided a reasonable interpretation of the ambient air regulation and the Agency's long-standing interpretation of that regulation as applied in the OCS context.

(6) Methane Emissions Permit Conditions. The Board concludes that the Region did not abuse its discretion in declining to include additional permit conditions on methane emissions, which would otherwise be necessary to ensure the enforceability of "potential to emit" ("PTE") limitations. Both Permits count all methane emissions from the drilling mud system ("DMS") operations (to the full extent of the sources' PTE) towards the Permits' total allowable greenhouse gas emissions. Under these circumstances, ICAS's argument that the Permits must include conditions ensuring the enforceability of limitations on a source's PTE is misplaced, as the Permits do not contain owner requested limits on methane emissions or otherwise limit the sources' PTE from DMS operations. Further, with regard to the bulk of greenhouse gas emissions, the Permits contain enforceable permit conditions.

(7) Public Comment Periods on Remand. The Board concludes that ICAS has failed to demonstrate that the Region clearly erred or abused its discretion in only providing 30 days to comment on the concurrently issued draft Chukchi and Beaufort Permits during the remand period. The Region provided the regulatory minimum comment period for the draft permits, and ICAS does not point to any statutory or regulatory provision that *requires* the Agency to provide a longer comment period when the Agency issues concurrent permits. ICAS's attempt to recalculate the length of the comment periods based on an unexplained mathematical formula involving the number and lengths of other comment periods is unconvincing. Furthermore, it is clear from the administrative record that the Region appropriately balanced the conflicting considerations, which include the need for expedited review of PSD permits, in deciding on the length of the comment periods and in denying requests for longer periods.

Before Environmental Appeals Judges Charles J. Sheehan, Kathie A. Stein and Anna L. Wolgast.

Opinion of the Board by Judge Stein:

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I. *STATEMENT OF THE CASE*

A group of conservation petitioners ("NVPH Petitioners"),[1] the Inupiat Community of the Arctic Slope ("ICAS"),[2] and Mr. Daniel Lum each petitioned[3] the Environmental Appeals Board ("Board") to review two Clean Air Act ("CAA" or "Act") Outer Continental Shelf ("OCS") Prevention of Significant Deterioration ("PSD") permits ("Permits") that Region 10 ("Region") of the U.S. Environmental Protection Agency ("EPA" or "Agency") issued to Shell Gulf of Mexico, Inc. and Shell Offshore, Inc. (collectively, "Shell") on September 19, 2011. *See* OCS PSD Permit to Construct, Permit Number R10OCS/PSD-AK-09-01 (Sept. 19, 2011) ("Chukchi Permit") (Administrative Record ("A.R.") SSS-3); OCS PSD Permit to Construct, Permit Number R10OCS/PSD-AK-2010-01 (Sept. 19, 2011) ("Beaufort Permit") (A.R. SSS-2). The Permits authorize Shell "to construct and operate the Noble Discoverer drillship[4] and its air emission units and to conduct other air pollutant emitting activities," within Shell's lease blocks in the Chukchi and Beaufort Seas off the North Slope of Alaska. Chukchi Permit at 1; Beaufort Permit at 1. The Permits also provide for the use of an associated fleet of support ships, including icebreakers, supply ships, and oil spill response vessels in addition to the *Discoverer*. *See* Chukchi Permit at 11-13; Beaufort Permit at 13-15.

This is the second time that OCS PSD permits for proposed oil exploration on Shell's lease blocks within the Chukchi and Beaufort Seas have come before

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[1] NVPH Petitioners include Native Village of Point Hope, Resisting Environmental Destruction of Indigenous Lands ("REDOIL"), Alaska Wilderness League, Center for Biological Diversity, Natural Resources Defense Council, Northern Alaska Environmental Center, Ocean Conservancy, Oceana, Pacific Environment, Sierra Club, and The Wilderness Society.

[2] Initially the Alaska Eskimo Whaling Commission joined ICAS in filing the petition for review. *See* Petition for Review (Oct. 24, 2011) ("ICAS Petition"). On November 22, 2011, counsel for both entities filed a motion requesting that the Board allow the Alaska Eskimo Whaling Commission to withdraw from the above-captioned matters. *See* Motion of Petitioner Alaska Eskimo Whaling Commission to Withdraw from These Proceedings (Nov. 22, 2011). The Board hereby grants Alaska Eskimo Whaling Commission's motion.

[3] NVPH Petitioners' petition was designated as OCS Appeal No. 11-02, ICAS's petition was designated as OCS Appeal No. 11-03, and Mr. Lum's petition was designated as OCS Appeal No. 11-04.

[4] The name of the drillship changed from the *Frontier Discoverer* to the *Noble Discoverer* during the summer of 2010 due to a change in ownership. Supplemental Statement of Basis for Proposed OCS PSD Permits *Noble Discoverer* Drillship 27 (July 6, 2011) ("Supp. Statement of Basis") (A.R. QQQ-3). Although the Board referred to the drillship as the *Frontier Discoverer* in all of the orders that addressed the 2010 Permits, to avoid confusion in the current proceedings, the Board will refer to the drillship simply as the *Discoverer*.

the Board.[5] In the previous consolidated appeals, several citizens' and conservation groups challenged the original OCS PSD permits ("2010 Permits") the Region had issued to Shell. Due to circumstances that arose as a result of the April 2010 *Deepwater Horizon* oil spill – both the suspension of drilling activities in the Arctic for the 2010 drilling season and the initiation of a comprehensive industry-wide review of offshore drilling safety and oil spill response capability by the U.S. Department of the Interior ("DOI") – the Board issued a decision that only addressed three issues (those that were legal in nature) because the analyses set forth in the documentation supporting the 2010 Permits for those issues would unlikely be affected by any future requirements or mandates that may have resulted from DOI's review that was underway at the time. In the Board's December 2010 decision, hereinafter referred to as *Shell 2010*, the Board remanded the 2010 Permits with specific findings on two of the three legal issues, denied review of the third legal issue, and generally remanded the 2010 Permits in their entirety as to all other issues in the petitions. *See In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 103 (EAB 2010) [hereinafter *Shell 2010*].

Upon completion of remand proceedings, the Region issued to Shell the two Permits that are the subject of the present appeals. Both the Region and Shell filed responses to the three petitions for review. Petitioners thereafter each filed motions requesting leave to file reply briefs, which are currently pending and which the Board addresses below. *See infra* Section V. The Board did not hold oral argument. For the reasons discussed below, the Board denies review of the Permits.

II. *ISSUES*

The Board has determined that the three petitions filed in this case, collectively, present seven issues for review. The Board first addresses the OCS source determination and the environmental justice analysis, the two issues that the Board remanded in *Shell 2010*. The Board then considers five new issues arising out of the remand proceedings. The seven issues the Board must resolve here are:

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[5] To date, the Board has published three orders related to permits Shell has sought to conduct exploratory activities on the Arctic OCS, in addition to numerous unpublished orders.

In 2007, the Board issued an order denying review in part and remanding in part two OCS minor source permits that Shell Offshore Inc. sought for two drilling vessels to operate in the Beaufort Sea. *In re Shell Offshore, Inc.*, 13 E.A.D. 357 (EAB 2007) [hereinafter *Shell 2007*]. In 2010, the Board issued an order denying review in part and remanding the permits in the consolidated appeals of two OCS PSD permits that, upon completion of remand proceedings, are now the subjects of the current appeals. *See In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 103 (EAB 2010) [hereinafter *Shell 2010*]. Upon a request from the Region, and in the interests of administrative efficiency and judicial economy, the Board later decided four additional issues to assist the Region in completing remand proceedings for the two OCS PSD permits now before the Board. *In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 193 (EAB 2011) [hereinafter *Shell 2011*].

A. Did the Region clearly err in determining when the *Discoverer* becomes, and ceases to be, an OCS source?

B. Did the Region satisfy its obligation to consider environmental justice under Executive Order 12898 and comply with applicable Board precedent?

C. Did the Region clearly err in adopting Shell's ambient air quality analysis?

D. Did the Region clearly err in determining that the 1-hour nitrogen dioxide ("NO_2") national ambient air quality standard ("NAAQS") would be met without separately determining compliance with the "maximum allowable concentration" of NO_2?

E. Did the Region clearly err in determining the ambient air exemption?

F. Did the Region abuse its discretion in declining to include additional permit limitations on methane emissions?

G. Did the Region clearly err or abuse its discretion in only providing thirty days to comment on the concurrently issued draft Chukchi and Beaufort Permits during the remand period?

III. *STANDARD OF REVIEW*

OCS PSD permits are governed by Title 40 of the Code of Federal Regulations ("C.F.R."), part 55, which in turn states that, when processing OCS PSD permits, the procedural rules contained within 40 C.F.R. part 124 – which are used to issue PSD permits generally – apply. 40 C.F.R. § 55.6(a)(3). Under part 124, the Board will not ordinarily review a PSD permit unless it is based on a clearly erroneous finding of fact or conclusion of law, or involves a matter of policy or exercise of discretion that warrants review. 40 C.F.R. § 124.19(a); Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). When analyzing PSD permits, the Board is cognizant of the preamble to section 124.19, in which the Agency states that the Board's 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. at 33,412; *accord In re Cardinal FG Co.*, 12 E.A.D. 153, 160 (EAB 2005).

In this instance, Board review is further limited by the Board's decision in *Shell 2010*. *See Shell 2010*, 15 E.A.D. at 162; *accord In re Knauf Fiber Glass GmbH*, 9 E.A.D. 1, 7 (EAB 2000) ("*Knauf II*") (explaining that the scope of review for the PSD permit issued upon completion of remand proceedings was ex-

pressly limited by the previous *Knauf* decision to the two remanded issues and to permit conditions modified during the remand period). The Board clearly stated that, upon completion of remand proceedings, any petitions for review of the Region's permitting decisions "shall be limited to issues addressed by the Region on remand and to issues otherwise raised in the petitions before the Board in this proceeding but not addressed by the Region on remand." *Shell 2010*, 15 E.A.D. at 162. Further, in the current appeals, "[n]o new issues may be raised that could have been raised, but were not raised," in the previous appeals. *Id.*; *accord Knauf II*, 9 E.A.D. at 7 (noting that issues raised outside of the appeal period are considered untimely); *see also In re Upper Blackstone Water Pollution Abatement Dist.*, 15 E.A.D. 297, 302 (EAB 2011) (citing cases where the Board has declined to consider issues raised in later briefs that were not raised in the initial petition for review), *appeal docketed*, No. 11-1474 (1st Cir. Apr. 29, 2011), *appeal docketed sub nom. Conservation Law Found. v. EPA*, No. 11-1610 (1st Cir. May 27, 2011); *In re Dominion Energy Brayton Point, LLC*, 13 E.A.D. 407, 439 (EAB 2007) (same), *appeal rendered moot by settlement*, No. 07-2059 (4th Cir. Dec. 17, 2007). Nevertheless, any changes to the Permits required by intervening changes in the law or any modifications to permit conditions made during the remand period are excepted from the limitation on the scope of review established in *Shell 2010* because such conditions have not been previously subject to the appeal process.[6] *See, e.g., Upper Blackstone*, 15 E.A.D. at 302; *Knauf II*, 9 E.A.D. at 7.

The petitioner bears the burden of demonstrating that review is warranted. *See* 40 C.F.R. § 124.19. To meet this burden, the petitioner must satisfy threshold pleading requirements including timeliness, standing, and issue preservation. *See id.*; *In re Russell City Energy Ctr., LLC*, 15 E.A.D. 1, 10 (EAB 2010), *appeal docketed sub nom. Chabot-Las Positas Cmty. Coll. Dist. v. EPA*, No. 10-73870 (9th Cir. Dec. 20, 2010) ("*Russell City II*"); *In re BP Cherry Point*, 12 E.A.D. 209, 216 (EAB 2005). For example, a petitioner seeking review must file an appeal of the permit decision within thirty days of service of the decision, and must have filed comments on the draft permit or participated in the public hearing. 40 C.F.R. § 124.19(a); *accord Russell City II*, 15 E.A.D. at 10. In addition, a petitioner must not only specify objections to the permit, but also explain why the permit issuer's previous response to those objections is clearly erroneous or otherwise warrants review. *See* 40 C.F.R. § 124.13 (requiring that all persons who believe a condition of a draft permit is inappropriate "must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period"); *id.* § 124.19(a) (stating that a petition for

[6] For example, NVPH Petitioners challenge the Region's 1-hour NO_2 NAAQS determination, which is based on a standard that was finalized but not yet in effect when the Region issued the 2010 Permits. *See* NVPH Petition at 10-26. In addition, ICAS challenges a new permit condition establishing the ambient air boundary at 500 meters from the *Discoverer*. ICAS Petition at 27-30.

review to the Board "shall include * * * a demonstration that any issues being raised were raised during the public comment period"); *see also In re Avenal Power Ctr., LLC*, 15 E.A.D. 384, 387 (EAB 2011), *appeals docketed sub nom. Sierra Club v. EPA*, No. 11-73342 (9th Cir. Nov. 3, 2011), *El Pueblo Para el Aire y Agua Limpio v. EPA*, No. 11-73356 (9th Cir. Nov. 4, 2011); *BP Cherry Point*, 12 E.A.D. at 216-17. The petitioner's burden is particularly heavy in cases where a petitioner seeks review of an issue that is fundamentally technical or scientific in nature, as the Board will typically defer to a permit issuer's technical expertise and experience on such matters if the permit issuer adequately explains its rationale and supports its reasoning in the administrative record. *See*, *e.g.*, *In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 510 (EAB 2006); *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33-34 (EAB 2005); *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 (3rd Cir. 1999); *see also In re Ash Grove Cement Co.*, 7 E.A.D. 387, 404 (EAB 1997).

When evaluating a permit appeal, the Board examines the administrative record prepared in support of the permit to determine whether the permit issuer exercised his or her "considered judgment." *Ash Grove Cement*, 7 E.A.D. at 417-18; *accord In re Cape Wind Assocs., LLC*, 15 E.A.D. 327, 330 (EAB 2011); *In re GSX Servs. of S.C., Inc.*, 4 E.A.D. 451, 454 (EAB 1992). The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied upon when reaching its conclusion. *E.g.*, *In re Shell Offshore*, *Inc.*, 13 E.A.D. 357, 386 (EAB 2007) [hereinafter *Shell 2007*] (citing *In re Carolina Light & Power Co.*, 1 E.A.D. 448, 451 (Act'g Adm'r 1978)); *Ash Grove Cement*, 7 E.A.D. at 417 (same). As a whole, the record must demonstrate that the permit issuer "duly considered the issues raised in the comments and [that] the approach ultimately adopted by the [permit issuer] is rational in light of all information in the record." *In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2005); *accord In re City of Moscow*, 10 E.A.D. 135, 142 (EAB 2001); *NE Hub*, 7 E.A.D. at 568.

Finally, the Board endeavors to construe liberally objections raised by parties unrepresented by counsel (i.e., those proceeding pro se), so as to fairly identify the substance of the arguments being raised. *In re Sutter Power Plant*, 8 E.A.D. 680, 687 & n.9 (EAB 1999); *accord Russell City II*, 15 E.A.D. at 12. While the Board does not expect such petitions to contain sophisticated legal arguments or to utilize precise technical or legal terms, the Board nonetheless expects such petitions "to articulate some supportable reason or reasons as to why the permitting authority erred or why review is otherwise warranted." *Sutter*, 8 E.A.D. at 687-88 (citing *In re Beckman Prod. Servs.*, 5 E.A.D. 10, 19 (EAB 1994)).

IV. *SUMMARY OF DECISION*

For all of the reasons stated below, the Board concludes that: (a) the Region did not clearly err in determining when the *Discoverer* becomes, and ceases to be, an OCS source; (b) the Region's supplemental environmental justice analysis and related conclusions satisfy its obligation to comply with Executive Order 12898 and applicable Board precedent; (c) the issue of the Region's adoption of Shell's ambient air quality analysis was not properly raised below; (d) the issue of the Region's determination that Shell would meet the 1-hour NO_2 NAAQS without separately determining compliance with the "maximum allowable concentration" of NO_2 was not properly raised below; (e) the Region did not clearly err in determining the ambient air exemption; (f) the Region did not abuse its discretion in declining to include additional permit limitations on methane emissions; and (g) the Region did not clearly err or abuse its discretion in providing thirty days to comment on the concurrently issued draft Chukchi and Beaufort Permits. Accordingly, the Board denies review of the Permits.

V. *RELEVANT FACTUAL AND PROCEDURAL HISTORY*

The Region issued the 2010 Permits to Shell in March and April of that year. Several groups[7] filed petitions for review, and in December 2010, the Board remanded the 2010 Permits with directions for the Region to further consider two issues: (1) the determination of when the *Discoverer* becomes an OCS source subject to regulation under CAA section 328, and (2) the Region's environmental justice analysis. *See Shell 2010*, 15 E.A.D. at 143, 148, 159-61. The Board denied review of a challenge to the Region's decision not to apply best available control technology ("BACT") to the associated fleet of support vessels and remanded the 2010 Permits in their entirety as to all other issues raised in the petitions. *See id.* at 131, 162. The Board's December 2010 order contains a detailed accounting of the procedural and factual history leading up to the remand of the 2010 Permits. *Id.* at 111-17. In March 2011, in response to motions for reconsideration and/or clarification from Shell and the Region, the Board issued an order addressing four additional issues.[8] *In re Shell Gulf of Mex., Inc.*, 15 E.A.D. 193 (EAB 2011) [hereinafter *Shell 2011*]. The Board denied review of three of the four issues but declined to sustain the Region's source impacts analysis for particulate matter with a diam-

[7] All of the groups constituting the NVPH Petitioners participated in the appeals of the 2010 Permits, with the exception of The Wilderness Society, which joins the NVPH Petitioners in its current appeal.

[8] *See In re Shell Gulf of Mex., Inc.*, OCS Appeal Nos. 10-01 through 10-04, at 2 (EAB Feb. 10, 2011) (Order on Motions for Reconsideration and/or Clarification) (denying the Region's and Shell's requests for reconsideration, but agreeing to the Region's request to decide four issues not addressed in the remand order so as to provide additional guidance for the Region's permit decisions on remand).

eter of 2.5 micrometers or less ("$PM_{2.5}$") because the administrative record lacked any assessment of whether emissions of $PM_{2.5}$ precursors could potentially contribute to cumulative impacts as secondary $PM_{2.5}$.[9] *Id.* at 202-06.

Upon completion of remand proceedings, the Region issued two proposed OCS PSD permits for Shell's operations in the Chukchi and Beaufort Seas on July 6, 2011, accompanied by a single supplemental statement of basis.[10] The Region solicited public comments on both proposed OCS PSD permits from July 6, 2011, through August 5, 2011, and held an informational meeting and a public hearing in Barrow, Alaska, on August 4, 2011. Supp. Statement of Basis at 12-14. Petitioners submitted comments on the proposed permits during this time.[11] On September 19, 2011, the Region issued the final Permits along with a single supplemental response to comments document. *See* Beaufort Permit; Chukchi Permit; Supplemental Response to Comments for OCS PSD Permits Noble Discoverer Drillship (Sept. 19, 2011) ("Supp. RTC") (A.R. SSS-4).

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[9] In declining to exercise review of the other three issues, the Board concluded that:

(1) based on the determination of when the *Discoverer* becomes an OCS source, Icebreaker #2 is not part of the OCS source when setting and retrieving the *Discoverer's* anchors;

(2) the Region did not clearly err when, for purposes of determining best available control technology ("BACT") limitations, the Region assumed that all particulate matter emissions – PM (particulate matter), $PM_{2.5}$ (particulate matter with a diameter of 2.5 micrometers or less), and PM_{10} (particulate matter with a diameter of ten micrometers or less) – were $PM_{2.5}$ emissions when it conducted a BACT analysis, and;

(3) the Region did not clearly err when it declined to include emissions from unplanned operations of the oil spill and response vessels in the potential to emit analysis.

Shell 2011, 15 E.A.D. at 198-202, 206-20.

[10] *See* Proposed Outer Continental Shelf Prevention of Significant Deterioration Permit to Construct, Permit No. R10OCS/PSD-AK-2010-01 (July 6, 2011) ("Proposed Beaufort Permit") (A.R. QQQ-1); Proposed Outer Continental Shelf Prevention of Significant Deterioration Permit to Construct, Permit No. R10OCS/PSD-AK-09-01 (July 6, 2011) ("Proposed Chukchi Permit") (A.R. QQQ-2); Supp. Statement of Basis.

[11] *See* E-mail from Daniel Lum to Suzanne Skadowski, EPA Region 10 (Aug. 3, 2011 1:20 pm PDT) ("Lum Comments") (A.R. RRR-24); ICAS, Alaska Eskimo Whaling Commission, and North Slope Borough Comments to EPA Region 10 Re: Revised Draft Air Permits for Shell's Discoverer Exploration in Beaufort and Chukchi Seas (Aug. 5, 2011) ("ICAS Comments"); Alaska Wilderness League, Audubon Alaska, Center for Biological Diversity, Defenders of Wildlife, Greenpeace, Earthjustice, National Wildlife Federation, Native Village of Point Hope, Natural Resources Defense Council, Northern Alaska Environmental Center, Ocean Conservancy, Oceana, Pacific Environment, REDOIL, Sierra Club, The Wilderness Society, and World Wildlife Fund Comments Re: Revised Draft Air Permits for Shell's Proposed Oil and Gas Exploration Drilling in the Beaufort Sea and Chukchi Sea, Alaska (Aug. 5, 2011) (A.R. RRR-30) ("NVPH Comments").

The Board received three timely petitions seeking review of the Permits.[12] The Region and Shell filed responses to the petitions on November 16, 2011. Petitioners each filed motions requesting leave to file reply briefs and attached their proposed reply briefs.[13] A petitioner seeking leave to file a reply brief in an appeal of a new source review ("NSR") permit issued pursuant to the CAA, such as the OCS PSD Permits at issue here, must state "with particularity the arguments to which the Petitioner seeks to respond and the reasons the Petitioner believes it is both necessary to file a reply to those arguments * * * and how those reasons overcome the presumption in the Standing Order."[14] Order Denying Requests for Status Conference and Oral Argument and Establishing Filing Deadline 6 (Nov. 4, 2011) ("November Order") (citing Order Governing Petitions for Review of Clean Air Act New Source Review Permits 3 (EAB Apr. 19, 2011) ("Standing Order"), *available at* http://www.epa.gov/eab (click on Standing Orders)).

Upon consideration of Petitioners' motions to file reply briefs and proposed reply briefs, the Board finds that only two select issues within NVPH Petitioners' and ICAS's reply briefs meet the high threshold required to overcome the presumption against filing reply briefs that the Board applies in NSR appeals. *See*

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[12] On October 25, 2011, the Board received a request from Donna Arvelo seeking information on how to file a petition for review. Nine days later, on November 3, 2011, the Board received a document attached to an e-mail from Ms. Arvelo. *See* E-mail from Donna Arvelo to Eurika Durr, Clerk of the Board, Environmental Appeals Board, U.S. EPA, attach. 1 (Nov. 3, 2011, 10:38 am EDT). The Board construed this November 3 submission as a petition for review and designated it as OCS Appeal No. 11-08. Because this petition was filed after October 24, 2011, the date by which petitions for review of these Permits were due, the Board hereby dismisses Ms. Arvelo's petition as untimely. *See*, *e.g.*, *In re Envotech*, *L.P.*, 6 E.A.D. 260, 266 (EAB 1996); *In re Beckman Prod. Servs., Inc.*, 5 E.A.D. 10, 15-16 (EAB 1994); *see also* Environmental Appeals Board, U.S. EPA, Practice Manual 10-12 (Sept. 2010), *available at* http://www.epa.gov/eab (click on EAB Guidance Documents) (discussing general filing requirements including timeliness of submissions); Order Authorizing Electronic Filing in Proceedings Before the Environmental Appeals Board not Governed by 40 C.F.R. Part 22, at 3 (Jan. 28, 2010), *available at* http://www.epa.gov/eab (click on Standing Orders) (authorizing electronic filing through the Central Data Exchange ("CDX") and stating that "[s]ending a document directly to the Board via email, rather than through the CDX portal, does not constitute electronic filing unless otherwise specified by the Board."). The Board notes that Ms. Arvelo's informational request on filing appeals was also received after the appeal deadline.

[13] Mr. Lum also requested oral argument in an e-mail dated November 8, 2011, but the Board had already denied oral argument in a previous order. *See* Order Denying Requests for Status Conference and Oral Argument and Establishing Filing Deadline (Nov. 4, 2011).

[14] The Board recently issued a standing order in which it adopted certain procedures intended to facilitate expeditious resolution of petitions requesting review of permits issued under the CAA new source review ("NSR") program, including OCS PSD permits. *See* Order Governing Petitions for Review of Clean Air Act New Source Review Permits 1 n.2 (EAB Apr. 19, 2011) ("Standing Order"), *available at* http://www.epa.gov/eab (click on Standing Orders); *see also* 40 C.F.R. § 124.19. Among other things, the Board will apply a presumption against the filing of reply briefs and sur-replies in NSR appeals. *See* Standing Order at 3. However, the Board maintains discretion to modify these procedures as appropriate on a case-specific basis. *Id.* at 6.

Standing Order at 3; *see also* November Order at 5-6. Specifically, NVPH Petitioners assert that the Region offers a new rationale and cites new authority in its response brief to justify the 500-meter ambient air boundary. *See* Petitioners Native Village of Point Hope et al. Motion for Leave to File Reply Brief 3-5 (Nov. 23, 2011); Reply to Responses to Petition for Review Submitted by Native Village of Point Hope et al. 2-7 (Nov. 23, 2011) ("NVPH Reply"). Similarly, ICAS asserts that the Region relies on new information in its response brief that was not available in the supplemental response to comments regarding whether the methane emissions limit is practically enforceable. Motion for Leave to File Reply Brief in Support of ICAS's Petition for Review 2 (Nov. 23, 2011); [Proposed] Reply Brief in Support of ICAS's Petition for Review 3-4 (Nov. 23, 2011) ("ICAS Reply").

The Board concludes that these two select issues that NVPH Petitioners and ICAS raise meet the high threshold required to overcome the Board's stated presumption against the filing of reply briefs in an NSR appeal.[15] In particular, these two issues could not be raised prior to the Region's response as asserted by petitioners because the respective rationales the Region cites in its response do not appear in the administrative record. Furthermore, a new explanation or rationale for the Region's permitting decisions that appears for the first time in the Region's response has the potential to significantly impact the outcome of the Board's decision on that issue, and the Board has historically granted parties' motions to file replies or sur-replies when new arguments are raised for the first time in opposing briefs.

Accordingly, NVPH Petitioners' motion for leave to file a reply brief is granted in part. In reaching its conclusions set forth in this order, the Board has considered the portion of NVPH Petitioners' reply brief that addresses the Region's response regarding the 500-meter ambient air boundary. *See* NVPH Reply at 2-7. ICAS's motion for leave to file a reply brief is also granted in part, and in reaching its conclusions the Board has considered the portion of ICAS's reply brief that addresses the Region's reliance on new information to support the Region's permiting decisions for methane emissions. *See* ICAS Reply at 3-4. The Board denies NVPH Petitioners' and ICAS's motions for leave to file a reply brief with respect to all other issues. The Board denies Mr. Lum's motion for leave to file a reply brief.

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[15] *See, e.g.*, *In re ArcelorMittal Cleveland Inc.*, NPDES Appeal No. 11-01, at 1-3 (EAB Dec. 9, 2011) (Order Granting in Part EPA's Motion to File Surreply, Denying Petitioner's Request to Provide Additional Information, and Granting Oral Argument) (granting in part permit issuer's request to file a sur-reply but limiting the scope to a subset of issues raised in permit issuer's motion requesting leave to file sur-reply).

The Board analyzes the parties' arguments and sets forth its determinations below.

VI. *ANALYSIS*

A. *ICAS Has Not Demonstrated That the Region's Determination of When the "Discoverer" Becomes, and Ceases to Be, an OCS Source is Clearly Erroneous*

The determination of when the *Discoverer* becomes, and ceases to be, an OCS source is a foundational element of the Permits that dictates when CAA section 328, 42 U.S.C. § 7627, applies to, and thus regulates air pollution from, the *Discoverer*. As the Board noted in the appeals of the 2010 Permits, the determination of when the *Discoverer* becomes, and ceases to be, an OCS source is antecedent to almost every decision the Region must make in these OCS PSD permit proceedings, and because it is an issue of first impression, the Board is obliged to carefully examine when the *Discoverer* becomes an OCS source.[16] *Shell 2010*, 15 E.A.D. at 131; *In re Shell Gulf of Mex., Inc.*, OCS Appeal Nos. 10-01 through 10-04, at 21, 25 (EAB Feb. 10, 2011) (Order on Motions for Reconsideration and/or Clarification) ("Clarification Order").

ICAS challenges the Region's permitting decisions on this issue, arguing that the OCS source definition contained in the Permits is clearly erroneous based on the Region's misapplication of the regulatory and statutory authorities that define an OCS source, particularly the requirement that the *Discoverer* be located at an authorized drill site to become an OCS source. The Region argues that the OCS source definition in the Permits gives meaning to all three criteria present in the EPA-promulgated regulation that defines an OCS source and further maintains that the OCS source definition in the Permits is reasonable in the context of the statutory authorities that contribute to the OCS source definition. The question the Board must resolve is: did the Region reasonably interpret and apply the statutory and regulatory authorities that define an OCS source in these Permits and adequately support its permitting decisions in the administrative record?

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[16] The Board, in addressing the relationship between the OCS source and the PSD permitting requirements, has held that after EPA has identified the existence of an OCS source, EPA must next "determin[e] the scope of the 'stationary source' for PSD purposes." *Shell 2010*, 15 E.A.D. at 123 (quoting *In re Shell Offshore, Inc.*, 13 E.A.D. 357, 380 (EAB 2007) ("*Shell 2007*")). Thus, the "stationary source" remains the relevant unit of analysis for determining PSD applicability in the offshore context. *See id.*; *Shell 2007*, 13 E.A.D. at 380-81. In this instance, the Region has established that the OCS Source, the *Discoverer*, is the stationary source. *Shell 2010*, 15 E.A.D. 136 n.52 (internal citations omitted).

Before addressing the parties' arguments in detail, a brief review of the following background information is warranted: (a) the statutory and regulatory authorities that define the OCS source; (b) the Board's remand of the OCS source determination in *Shell 2010*, and; (c) the new mooring process developed for the *Discoverer* on remand that in turn must be assessed in light of the OCS source definition in the new Permits.

1. *Statutory Authorities and Factual History*

Section 328 of the CAA, 42 U.S.C. § 7627, establishes air pollution controls that require OCS sources "to attain and maintain Federal and State ambient air quality standards" and to comply with the PSD program. The Act defines an 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 [43 U.S.C. § 1331 et seq.], and
>
> (iii) is located on the Outer Continental Shelf or in or on waters above 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 regulations EPA promulgated to implement CAA section 328 define an OCS source by first incorporating the language from sections (i), (ii), and (iii) of section 328, above, and then adding:

> This definition shall include vessels only when they are:
>
> (1) Permanently or temporarily attached to the seabed and erected thereon and used for the purposes of exploring,

> developing or producing resources therefrom, within the meaning of section 4(a)(1) of OCSLA * * * ; or
>
> (2) Physically attached to an OCS facility, in which case only the stationary source aspects of the vessel will be regulated.

40 C.F.R. § 55.2. Section 55.2 references section 4(a)(1) of the Outer Continental Shelf Lands Act ("OCSLA"), 43 U.S.C. § 1333(a)(1), which states in relevant part:

> The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands, and *all installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for, developing, or producing resources therefrom* * * * .

OCSLA § 4(a)(1), 43 U.S.C. § 1333(a)(1) (emphasis added). Taken together, the Board looks to these authorities when evaluating an OCS PSD permit's definition of the OCS source.

The Board remanded the 2010 Permits to the Region because the Region's rationale for defining the OCS source was not adequately explained or supported by the record.[17] *See Shell 2010*, 15 E.A.D. at 135-43. The Board explained that the Region neither provided a cohesive explanation for how it interpreted the "erected thereon" and "used for the purpose of exploring, developing, or producing resources therefrom" criteria in 40 C.F.R. § 55.2 to mean "secure and stable in a position to commence exploratory activity," nor analyzed how its interpretation of

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[17] In *Shell 2010*, the Region initially proposed two alternative definitions of the OCS source, and after receiving public comments on both alternatives, ultimately decided on the following definition of the OCS source for the 2010 Permits:

> For the purpose of this Permit, the Discoverer is an OCS source between the time the Discoverer is declared by the Discoverer's on-site company representative to be secure and stable in a position ready to commence exploratory activity at the drill site until the Discoverer's on-site company representative declares that, due to retrieval of anchors or disconnection of its anchors, it is no longer sufficiently stable to conduct exploratory activity at the drill site * * * .

OCS PSD Permit to Construct, Permit No. R10OCS/PSD-AK-09-01 at 5 (Mar. 31, 2010) ("2010 Chukchi Permit") (A.R. L-1); OCS PSD Permit to Construct, Permit No. R10OCS/PSD-AK-2010-01 at 14 (Apr. 9, 2010) ("2010 Beaufort Permit") (A.R. PP-2).

40 C.F.R. § 55.2 was informed by the terms of CAA § 328 or OCSLA § 4(a)(1). *See id.* at 45-49. In addition, the Board held that the administrative record did not support the Region's permitting decision because the Region's OCS source definition resulted in a de facto "eight-anchors-down" requirement.[18] Despite the Region's disagreement with Shell regarding how many anchors were required to be on the seabed for the *Discoverer* to become an OCS source, Shell's on-site company representative nonetheless would ultimately determine when the *Discoverer* became "secure and stable in a position ready to commence exploratory activity," and thus subject to regulation under CAA section 328. As a result, the Board also held that the OCS source definition in the 2010 Permits represented an impermissible delegation to Shell of the Region's authority to determine when the *Discoverer* was subject to regulation under CAA section 328. *See id.* at 55-63.

During the remand proceedings, Shell developed a new mooring process for the *Discoverer* and coordinated with the Region to considerably alter the OCS source definition in these Permits. *See* Operations Guideline: Mooring Process for the Noble Discoverer Drillship (Apr. 21, 2011) ("Mooring Process Guidelines") (A.R. AAA-2 & CCC-298). In brief, the new mooring process calls for an anchor handling tug supply ("AHTS") vessel to pre-lay *Discoverer's* eight anchors[19] at a drill site and mark the position of each anchor with a surface buoy.[20] *Id*. at 10. The *Discoverer* will proceed under its own power to approximately one mile away from the pre-laid anchor buoy pattern, shut down its propulsion engines, and from there, the icebreaker will tow the *Discoverer* the remaining mile to the drilling position center of the buoy pattern at the drill site. *Id.* at 11. The *Discoverer* will then deploy the ship's anchor to hold the *Discoverer's* position, and it is at this point the *Discoverer* will become an OCS source.[21] Based on this new mooring

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[18] Throughout the development, issuance, and appeals of the 2010 Permits, Shell consistently maintained that the *Discoverer* would not be "secure and stable in a position ready to commence exploratory activity" until all eight of *Discoverer's* anchors were on the seabed. *See Shell 2010*, 15 E.A.D. at 144 & n.64; *id.* at 145-46 & n.66. The Region also consistently maintained that it disagreed with Shell, and the Region repeatedly stated its belief that the *Discoverer* could be "secure and stable in a position ready to commence exploratory activity" with less than eight anchors on the seabed. *Id.* at 56, 60-61.

[19] The Mooring Process Guidelines note that "[u]nlike most offshore drilling rigs, during sea transit the Noble Discoverer mooring wires are not rigged or connected to the anchors[;] [the anchors] are transported on the anchor handling tug supply vessel (AHTS) and can be positioned prior to arrival" at Shell locations in the Chukchi and Beaufort Seas. Mooring Process Guidelines at 4.

[20] The AHTS vessel will be either *Icebreaker #1* or *Icebreaker #2*. *See* Supp. Statement of Basis at 22; *see also* Supp. RTC at 22 (noting that both icebreakers contain both selective catalytic reduction ("SCR") and oxidation catalyst ("OxyCat") controls). Hereafter, the Board refers to the AHTS vessel simply as the icebreaker.

[21] The icebreaker will then sequentially deploy the *Discoverer's* mooring lines for connection to the pre-laid anchors, and after four lines are connected, the *Discoverer* will retrieve the ship's
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process, the Permits define the OCS source as follows:

> For the purpose of this permit:
>
> a. The Discoverer is an "OCS Source" at any time the Discoverer is attached to the seabed at a drill site by at least one anchor; and
>
> b. A drill site is any location at which Shell is authorized to operate under this permit and for which Shell has received from the [Bureau of Ocean Energy Management, Regulation and Enforcement] (BOEMRE) an authorization to drill.

Chukchi Permit at 13; Beaufort Permit at 16. During de-anchoring, the *Discoverer* would remain an OCS source while its mooring lines were disconnected from all eight anchors and would cease to be an OCS source only after the *Discoverer* ship's anchor is raised.[22] *See* E-mail from Mark Schindler, Octane, to Doug Hardesty, EPA, attach. 1 (May 27, 2011, 4:32 p.m. PDT) (providing supplemental page 12.1 to the Mooring Process Guidelines that describes drillship disconnection and departure procedures) (A.R. CCC-340).

With this framework in mind, the Board now turns its attention to the arguments presented in these appeals.

2. *Both the Region's Interpretation of the OCS Source Definition and the Region's Application of the OCS Source Definition to the "Discoverer" Are Reasonable*

At the outset, ICAS's petition for review of the OCS source definition acknowledges ICAS's main underlying concern – that emissions from the icebreaker that will pre-lay the *Discoverer's* anchors are not captured in Shell's potential to emit analysis because the activity will occur when the *Discoverer* is not an OCS source. ICAS Petition at 11-12; *see also* Clarification Order at 21-22 (explaining

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anchor before the icebreaker connects the *Discoverer's* mooring lines to the remaining four anchors. Mooring Process Guidelines at 12.

[22] During the de-anchoring process the icebreaker will assist the *Discoverer* in retrieving its mooring lines sequentially, and after the operation is carried out for four of the anchors, the *Discoverer* ship's anchor will be deployed to provide continued stability before the icebreaker proceeds to assist the *Discoverer* in disconnecting from the remaining four anchors. *See* E-mail from Mark Schindler, Octane, to Doug Hardesty, EPA, attach. 1 (May 27, 2011, 4:32 p.m. PDT) (providing supplemental page 12.1 to the Mooring Process Guidelines that describes drillship disconnection and departure procedures) (A.R. CCC-340). Thus, the ship's anchor will be the last anchor to be removed from the seabed.

that the "predicate determination of when the OCS source exists" governs "which emissions from the Associated Fleet[23] must be included in the air quality impacts analysis and which emissions are wholly unregulated by the OCS PSD permits"). ICAS refers to the icebreaker's emissions that will occur when it pre-lays the *Discoverer's* anchors as "classic pre-construction emissions." ICAS Petition at 11. However, as the Board noted in its February 2011 order that addressed motions requesting the Board to reconsider and/or clarify certain aspects of the December 2010 remand order, "no party has argued that any of the icebreaker or anchor handler emissions must be included within the air quality impacts analysis pursuant to CAA § 165(a)(3), 42 U.S.C. § 7475(a)(3), as 'emissions from construction' of the stationary source." Clarification Order at 22 n.15 (citations omitted). The Board continued that it would consider the issues pertaining to the air quality impacts analysis only "as framed by the parties in this case."[24] *Id.* Although ICAS does not directly assert that emissions resulting from the icebreaker pre-laying the *Discoverer's* anchors should be included in the air quality impacts analysis as construction emissions, ICAS's arguments with respect to the OCS source definition are all ultimately focused on obtaining specific relief – the inclusion of the icebreaker's emissions that will occur when it pre-lays the *Discoverer's* anchors in the air quality impacts analyses that must accompany these Permits.

Both the Region and ICAS stipulate that with respect to determining when the *Discoverer* becomes an OCS source, for the purposes of 40 C.F.R. § 55.2, the *Discoverer* is "temporarily attached to the seabed" when one anchor is deployed, and the *Discoverer's* status as a drillship fulfills the "used for the purposes of exploring, developing or producing resources" requirement in section 55.2. *See* ICAS Petition at 11, 13 & n.5; Supp. Statement of Basis at 22-24; Supp. RTC at 17. Thus, the fulcrum of the parties' disagreement in large part remains the interpretation of the "erected thereon"[25] criterion in 40 C.F.R. § 55.2.

ICAS argues that the Region's definition of the OCS source in the Permits constitutes clear error. In support of its argument, ICAS asserts that the Region wrongly concludes that the regulatory definition of OCS source and sec-

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[23] The Region explained in the response to comments for the 2010 Permits that the term "Associated Fleet" refers to the vessels supporting the *Discoverer's* operations that may be operating within twenty-five miles of the *Discoverer* "while the Discoverer is an OCS source," and explained that the Associated Fleet included, among other things, the icebreaker and the anchor handler/icebreaker. Response to Comments for OCS PSD Permit to Construct, Permit No. R10OCS/PSD-AK-09-01 at 7 n.3 (Mar. 31, 2010) (emphasis added) ("2010 Chukchi RTC") (A.R. L-2).

[24] As noted earlier in this decision, the Board clearly stated in its December 2010 remand order that any party filing a petition for review of the Region's final permit decisions issued upon completion of remand proceedings could not raise any new issues "that could have been raised, but were not raised, in the present appeals." *Shell 2010*, 15 E.A.D. at 162.

[25] As noted above, the interpretation of the "erected thereon" criterion in 40 C.F.R. § 55.2 proved pivotal in the appeals of the 2010 Permits.

tion 4(a)(1) of OCSLA, 43 U.S.C. § 1333(a)(1), contemplate more than attachment to the seabed. ICAS Petition at 11 (asserting that drillships "are erected onshore or at port before they ever set sail"); *id.* at 12-14 (disputing the Region's interpretation of "erected thereon" as being geographically specific to a drill site). To cure the Region's error in determining when the *Discoverer* becomes an OCS source, which ICAS asserts, among other things, leads to irrational results, ICAS counters that the *Discoverer* should be considered an OCS source whenever it drops an anchor on one of Shell's lease blocks anywhere in the Chukchi or Beaufort Seas. *Id.* at 12, 14-16 (asserting that the "erected thereon" criterion does not apply to drillships, and rather only applies to other types of equipment used for exploration such as platforms, and to "the other phases of oil and gas activity, and not drillship exploration").[26] Finally, ICAS asserts that allowing the lease blocks to define the scope of the Permits but then making the OCS source determination contingent on the receipt of an authorization to drill from the Department of the Interior constitutes clear error because it is an inconsistent interpretation of OCSLA. *Id.* at 15-16.

Despite ICAS's considerable efforts to persuade the Board that the determination of when the *Discoverer* becomes an OCS source should be conditioned solely on the criterion from 40 C.F.R. § 55.2 that requires *Discoverer's* attachment to the seabed,[27] and further that attachment to the seabed by a single anchor any-

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[26] ICAS does not acknowledge the Region's statements in the supplemental statement of basis that appear to directly address ICAS's concerns regarding the future application of the OCS source definition to different types of exploration equipment, such as drilling platforms. *See* ICAS Petition at 14. The Region explains:

> In reaching this conclusion, Region 10 notes that vessels used for oil exploration and production (not to mention OCS vessels used for other purposes) vary greatly in configuration. Therefore, Region 10's proposal in this case that the Discover [sic] is an OCS source as defined in 40 C.F.R. § 55.2 when attached to the seabed by a single anchor at a drill site does not necessarily resolve when other types of vessels or drill rigs become OCS sources, an issue that will vary to some extent depending on the factual differences in the equipment used to carry out the OCS activity and the particular project.

Supp. Statement of Basis at 25; *see also Shell 2010*, 15 E.A.D. at 144 (noting that once a permit issuer receives an OCS PSD application there is sufficient notice of the proposed equipment configuration and OCS activities to reasonably determine when that vessel or equipment becomes an OCS source).

[27] The authorities ICAS cites in support of its assertion that attachment to the seabed on any of Shell's lease blocks in the Chukchi or Beaufort Seas, without anything else, renders the *Discoverer* an OCS source, do not support ICAS's interpretation of the regulatory definition of the OCS source as it applies to *Discoverer*. In fact, the sources ICAS cites for support are easily dismissed.

First, ICAS cites the *preamble to the proposed OCS air regulations* in support of its assertion that attachment to the seabed alone is sufficient to render the *Discoverer* drillship an OCS source.

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where within one of Shell's lease blocks in the Beaufort or Chukchi Seas should suffice, ICAS's arguments fall short for several reasons.

First, ICAS fails to reconcile its position that only attachment to the seabed is required for the *Discoverer* to become an OCS source[28] with the Region's ro-

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(continued)
ICAS Petition at 14 (citing Outer Continental Shelf Air Regulations, 56 Fed. Reg. 63,774, 63,777 (proposed Dec. 5, 1991)). ICAS simply fails to acknowledge that in the final OCS regulations, EPA modified the definition of the OCS source to clarify when vessels would be considered OCS sources, and the final language of the regulation includes the criterion "erected thereon." Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792, 40,807 (Sept. 4, 1992) (codified at 40 C.F.R. § 55.2).

Second, ICAS plucks a sentence fragment from the legislative history accompanying the 1978 amendments to OCSLA that reads "federal law is to be applicable to all activities on all devices in contact with the seabed for exploration, development, and production." ICAS Petition at 14 (citing H.R. Rep. No. 95-1474, at 80, *reprinted in* 1978 U.S.C.C.A.N. 1674,1679). The Board carefully examined the relevant legislative and regulatory history of the definition of OCS source in *Shell 2010*, 15 E.A.D. at 140-43, including the 1978 OCSLA amendments. Congress eliminated the reference to "fixed structures" in OCSLA section 4(a)(1) and replaced it with "all installations and other devices permanently or temporarily attached to the seabed." *See id.* at 141 n.62. The Board reasoned that the conference report from which ICAS selects the language that allegedly supports its interpretation of the OCS source definition with respect to drillships explains that, in large part, the reason Congress amended OCSLA section 4(a)(1) in 1978 was to ensure that foreign-built production platforms could not escape U.S. customs duties once they were brought into OCS waters. *See id.* (citing H.R. Rep. No. 95-1474, at 80-81, *reprinted in* 1978 U.S.C.C.A.N. at 1679-80). Thus, the sentence fragment ICAS removes from the context of the legislative history of the 1978 OCSLA amendments does not support ICAS's contention that the determination of when the *Discoverer* becomes an OCS source is governed only by attachment to the seabed.

Finally, ICAS's reliance on the First Circuit decision in *Alliance to Protect Nantucket Sound, Inc. v. U.S. Army*, 398 F.3d 105 (1st Cir. 2005) to support its contention that an OCS source need not even be related to mineral extraction, much less be erected on the seabed and used to explore, develop, or produce resources therefrom, is misplaced. This case is inapposite to these OCS PSD appeals because it addresses the U.S. Army Corps of Engineers' jurisdiction to issue a permit to operate a data tower located on the OCS pursuant to Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403. The Board agrees with the Region that there is nothing in this case to suggest "that a vessel that is simply anchored anywhere on the OCS" or on a specific leasehold is sufficient to render that vessel, such as the *Discoverer* drillship, subject to OCSLA's jurisdiction. Supp. RTC at 18 & n.6.

[28] The Board is mindful that ICAS's assertion, namely that the "erected thereon" criterion does not apply to drillships such as the *Discoverer*, ICAS Petition at 13-14, effectively renders the "erected thereon" criterion of the OCS source definition mere surplusage, which is generally prohibited under the canons of statutory and regulatory construction. *See In re Beckman Prod. Servs.*, 8 E.A.D. 302, 310 (EAB 1999) ("Under well accepted canons of construction, a rule should be read in a manner that gives effect to all of its parts rather than in a way that renders some of its terms meaningless or redundant."), *quoted in In re Vidiksis*, 14 E.A.D. 333, 344 (EAB 2009); Clarification Order at 16 n.12; *see also* Outer Continental Shelf Air Regulations, 57 Fed. Reg. at 40,793 (stating that the regulatory definition of an OCS source "would include, for example, drill ships on the OCS"). If a drillship is "erected" onshore or at port before it ever sets sail, the term "erected" would be meaningless or redundant because every drillship will therefore be "erected" for purposes of the OCS source definition contained in 40 C.F.R. § 55.2.

bust analysis that, as directed by the Board's December 2010 remand order, provides a cogent, reasoned explanation for the Region's OCS source definition and gives meaning to all three criteria in 40 C.F.R. § 55.2 consistent with both CAA section 328, 42 U.S.C. § 7627, and OCSLA section 4(a)(1), 43 U.S.C. § 1333(a)(1). *See* Supp. Statement of Basis at 22-25; Supp. RTC at 17-19. In the supplemental statement of basis, the Region carefully examined the criteria contained in the regulatory definition of the OCS source because 40 C.F.R. § 55.2 references the "attached," "erected," and "used for the purpose of" terms from OCSLA section 4(a)(1), 43 U.S.C. § 1333(a)(1). Supp. Statement of Basis at 23. In particular, the Region acknowledged that the phrasing in OCSLA § 4(a)(1) is different than in section 55.2, but concluded that the reference to "erected thereon" in 40 C.F.R. § 55.2 is "intended to reflect the process by which a vessel becomes attached to the seabed and used thereafter for the purpose of exploring, developing, or producing resources from the seabed." *Id.* (noting that there is neither any discussion of "erected" in the legislative history for CAA § 328 or OCSLA § 4(a)(1), nor any indication in the proposed or final OCS regulations that the criteria present in 40 C.F.R. § 55.2 should be interpreted in any way differently than they are in OCSLA § 4(a)(1)).

The Region also analyzed the meaning of the verb "to erect" and explained that its customary meaning "to construct" or "to build" suggests that the activity be carried out according to a plan or specification, and that requiring the attachment to the seabed occur at the location where OCS activity is reasonably expected to occur, i.e., at the drill site, ensures that attachment to the seabed is related to engaging in a systematic and planned activity as an OCS source, and not for other purposes such as waiting out a storm or anchoring in a harbor to get supplies. *Id.* at 24 (citing the American Heritage and Merriam Webster dictionary definitions of "to erect"); *see also* Supp. RTC at 18. Thus, the Region has demonstrated through its analysis of the terms contained in 40 C.F.R. § 55.2, particularly the "erected thereon" criterion, that it exercised its considered judgment in determining that the *Discoverer* becomes an OCS source under 40 C.F.R. § 55.2 when it is attached to the seabed at a drill site where it can reasonably be expected to conduct OCS activities. *See, e.g., Russell City II*, 15 E.A.D. at 64-65 (determining that administrative record supported the permitting authority's selected compliance margin and reflected the permitting authority's "considered judgment" on the matter).

The alternative definition of the OCS source ICAS proposes, although intended to capture the icebreaker's emissions when pre-laying the *Discoverer's* anchors, would nevertheless lead to absurd results. As the Region points out, ICAS's proposition that the *Discoverer* becomes an OCS source whenever it drops an anchor on one of Shell's lease blocks contravenes the statutory and regulatory definitions of OCS source contained in CAA § 328 and 40 C.F.R. § 55.2. Region Response at 9-10; Supp. RTC at 18. Shell's lease blocks in the Chukchi and Beaufort Seas are comprised of thousands of square miles each. Supp. RTC

at 18. Under ICAS's proposed definition of the OCS source, the *Discoverer* could be anchored on one of Shell's lease blocks literally hundreds of miles away from the drill site where OCS activity will occur, and ICAS's definition of the OCS source would capture the icebreaker's emissions when it pre-lays *Discoverer's* anchors. *See id.*

In addition, ICAS fails to address the implications of its reasoning for the statutory provision in CAA section 328 that prevents emissions from vessels servicing or associated with the OCS source that are more than twenty-five miles from the OCS source from counting as direct emissions of the OCS source. 42 U.S.C. § 7627; *see also* Region Response at 10. ICAS's proposed definition of the OCS source could also lead to the absurd result of not regulating the *Discoverer* as an OCS source if the *Discoverer* were anchored just outside of one of Shell's lease blocks and the icebreaker was pre-laying the *Discoverer's* anchors only a mile away on one of Shell's lease blocks where the *Discoverer* is authorized to conduct exploratory activities. *See* Supp. RTC at 18. In sum, ICAS's proposed alternative of defining the *Discoverer* as an OCS source whenever it deploys a single anchor on one of Shell's lease blocks in the Chukchi or Beaufort Seas is unsupported by the statutes and regulations that define an OCS source and would also lead to absurd results.

ICAS also contends that the OCS PSD permits, which authorize Shell to conduct air pollutant emitting activities on entire lease blocks, should govern the scope of the OCS source definition, which is limited to drill sites where Shell has received an authorization to drill from the Bureau of Ocean Energy Management, Regulation and Enforcement ("BOEMRE"),[29] must fail. ICAS Petition at 15-16;

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[29] As the Board noted in *Shell 2010*, in May 2010 the Secretary of DOI signed a Secretarial Order reorganizing the former Minerals Management Service ("MMS") into three independent entities to better carry out its three missions of: (1) improving the management, oversight, and accountability of activities on the OCS; (2) ensuring a fair return to the taxpayer from offshore royalty and revenue collection and disbursement activities; and (3) providing independent safety and environmental oversight and enforcement of offshore activities. *See Shell 2010*, 15 E.A.D. at 112 n.7; *see also* U.S. DOI, Departmental Manual, pts. 118 & 119, ch. 1 (Sept. 30, 2011), *available at* http://elips.doi.gov/app_dm/dm.cfm ("Departmental Manual") (establishing the creation, authorities, objectives, and reporting relationships for the Bureau of Ocean Energy Management ("BOEM") and Bureau of Safety and Environmental Enforcement ("BSEE")). BOEMRE assumed all of MMS's responsibilities in the interim until the full implementation of the reorganization into the three separate entities was complete. *See Shell 2010*, 15 E.A.D. at 112 n.7. The transfer of the revenue collection function to the Office of Natural Resources Revenue was completed on October 1, 2010. *See* Secretary of the Interior, U.S. DOI, Order No. 3306, *Organizational Changes Under the Assistant Secretary – Policy, Management and Budget* (Sept. 20, 2010), *available at* http://elips.doi.gov/app_SO/so.cfm; Departmental Manual, pt. 112, ch. 34 (Apr. 15, 2011). One year later, on October 1, 2011, the reorganization was completed when BOEMRE was replaced by BOEM and BSEE. *See* Departmental Manual, pts. 118 & 119. For consistency the Board will nonetheless refer to BOEMRE throughout this decision because the Permits and the supporting documentation refer exclusively to BOEMRE.

see also Chukchi Permit at 1 (listing lease blocks to which the permit applies); Beaufort Permit at 1 (same). ICAS's contention that this is an inconsistent interpretation of OCSLA is unsupported. As the Region aptly states in the supplemental response to comments, "[i]t is not the lease rights held by a company but the authorization to drill that determines the area where a drillship may be erected and used for the purpose of exploring, developing, or producing resources from the seabed." Supp. RTC at 19. In other words, contrary to ICAS's interpretation, it is the authorization to drill at a specific site, and not the more general leaseholds Shell maintains on the OCS, that renders the *Discoverer* "regulated or authorized under OCSLA." *See* CAA § 328(a)(4)(C)(ii), 42 U.S.C. § 7627(a)(4)(C)(ii).

ICAS's arguments also blithely ignore the larger regulatory scheme that governs OCS exploration, development, and production. *See* ICAS Petition at 15-16 (referencing different phases related to the exploration for and recovery of oil and gas resources). It is BOEMRE, located within DOI, that has jurisdiction to authorize drilling activities on the OCS. EPA is responsible for permitting the air pollutant emitting activities on portions of the OCS. As the Board notes below in Section VI.E, without the authorization from BOEMRE to operate at a particular drill site, Shell will not be able to conduct any air pollutant emitting activities as an OCS source. Thus, the Region did not clearly err when it referenced BOEMRE's authorization for a permit to drill when defining the drill site in the OCS source definition contained in the Permits because without the authorization, the *Discoverer* will not become an OCS source.

In sum, the Region's determination of when the *Discoverer* becomes, and ceases to be, an OCS source in the context of these Permits demonstrates that the Region undertook a cogent, well-reasoned analysis of the statutory and regulatory requirements for an OCS source and reasonably applied that analysis to the *Discoverer* drillship. ICAS's attempts to argue that Shell must include in its air quality impacts analysis emissions from the icebreaker that will pre-lay the *Discoverer's* anchors at a drill site by asserting that the *Discoverer* becomes an OCS source when it merely attaches to the seabed by a single anchor anywhere on one of Shell's lease blocks must fail. ICAS's proposed definition of the OCS source is not supported by the language of the statutes and the regulation that define the OCS source. For the foregoing reasons, the Board denies review of the OCS source definition in the Permits.

B. *ICAS and Mr. Lum Have Not Demonstrated That the Region Failed to Satisfy Its Obligation to Comply with Executive Order 12898 and Applicable Board Precedent*

ICAS and Mr. Lum argue that the Region's supplemental environmental justice analysis was insufficient to conclude that Shell's oil exploration activities on the OCS will not have a disproportionately high and adverse effect on the health of the Alaska Native population living on the North Slope. ICAS alleges

that the Region's environmental justice analysis fails to properly account for the impacts of short-term NO_2 and ozone exposures on the Alaska Native population, and further asserts that the opportunities for public participation were inadequate. Mr. Lum challenges the lack of analysis regarding the impacts air emissions from Shell's OCS activities could have on traditional subsistence food sources, as well as Shell's oil spill response capabilities. The Region argues that its environmental justice analysis and the conclusions resulting therefrom comply with Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations" ("Executive Order"). The dispositive issue the Board must resolve is: did the Region meet its obligation to comply with the Executive Order and applicable Board precedent?

The Executive Order states in relevant part:

> *Agency Responsibilities.* To the greatest extent practicable and permitted by law, and consistent with principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice a part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations * * * .

Exec. Order 12898, 59 Fed. Reg. 7629, 7629 (Feb. 11, 1994) (A.R. F-1). Federal agencies are required to implement the Executive Order "consistent with, and to the extent permitted by, existing law." *Id.* at 7632. As the Board recently reiterated, the Executive Order "plainly states that it is 'intended only to improve the internal management of the executive branch * * *' and 'shall not be construed to create any right to judicial review' of the Agency's efforts to comply with the Order." *Id.* at 7632-33, *quoted in Avenal*, 15 E.A.D. at 398. The Board has held that a permit issuer should exercise its discretion to examine any "superficially plausible" claim that a minority or low-income population[30] may be disproportionately affected by a particular facility seeking a PSD permit. *In re EcoEléctrica, L.P.*, 7 E.A.D. 56, 69 n.17 (EAB 1997); *accord Shell 2010*, 15 E.A.D. at 148-49 & n.71 (citing PSD cases).

The Board remanded the 2010 Permits in part due to the Region's insufficient environmental justice analysis regarding the impact of short-term NO_2 exposures on North Slope communities. *Shell 2010*, 15 E.A.D. at 148-61. The challenge to the Region's environmental justice analysis occurred in a distinct context.

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[30] Under the Executive Order, the Alaska Native population residing on the North Slope qualifies as a minority population. *See* Supp. Statement of Basis at 64; ICAS Petition at 22.

The Region issued the final 2010 Permits after the Administrator had published a final rule in the Federal Register on February 9, 2010, establishing a 1-hour NAAQS for NO_2 to supplement the already-existing annual NO_2 NAAQS, but prior to the effective date of the new 1-hour NO_2 standard, April 12, 2010.[31] *See id.*, at 154. The substance of the Region's environmental justice analysis supporting the 2010 Permits consisted of a scant, one-paragraph statement of compliance with the annual NO_2 NAAQS, despite the availability of updated scientific and technical reviews supporting the Administrator's unequivocal determination that the annual NO_2 NAAQS alone was insufficient, by itself, to protect the public health with an adequate margin of safety. *See id.* at 156-58 & n.83. The record did not contain any acknowledgment or provide a rationale squaring the Region's determination regarding the health effects of NO_2 with the Administrator's findings, and thus the Board held that compliance with a NAAQS standard that the Agency has already deemed inadequate to protect the public health cannot by itself satisfy a permit issuer's obligation to adhere to the requirements of the Executive Order. *See id.* at 157, 159.

1. *Region's Supplemental Environmental Justice Analysis*

Upon completion of remand proceedings, the Region released a twenty-page supplemental environmental justice analysis to accompany the Permits and included it in the record to allow for public comment on the revised analysis. *See* Supplemental Environmental Justice Analysis for Proposed OCS PSD Permit No. R10OCS/PSD-AK-2010-01 & Permit No. R10OCS/PSD-AK-09-01 (undated) ("Supp. EJ Analysis") (A.R. FFF-8). The supplemental analysis explains that the northern Inupiat communities consist mostly of remote coastal villages whose residents rely on subsistence food sources obtained through traditional activities such as hunting, fishing, and whaling. *Id.* at 6. The analysis catalogues the distances between the Inupiat communities on the coast of the North Slope and Shell's lease blocks closest to shore in the Chukchi and Beaufort Seas and also includes relative distances between the specific planned drill sites in the Chukchi and Beaufort Seas, as contemplated in Shell's exploration plans, and the distances to the closest onshore communities. *Id.* The Region also included an illustration that juxtaposes the location of Shell's lease blocks, including planned drill sites, in the Chukchi and Beaufort Seas with onshore and offshore subsistence use areas for the northern Inupiat communi-

[31] NAAQS are health based-standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics. *See In re AES Puerto Rico, L.P.*, 8 E.A.D. 324, 351 (EAB 1999), *aff'd sub nom. Sur Contra La Contaminación v. EPA*, 202 F.3d 443 (1st Cir. 2000), *cited in Shell 2010*, 15 E.A.D. at 149 n.72. The Administrator is required to carry out periodic reviews of the air quality criteria published under section 108 of the CAA, 42 U.S.C. § 7408, as well as the NAAQS, and to revise the criteria and standards as appropriate. CAA § 109(d)(1), 42 U.S.C. § 7409(d)(1). The Board outlined the history of the NO_2 NAAQS reviews in its December 2010 remand order. *See Shell 2010*, 15 E.A.D. at 150 nn.73-74.

ties.[32] *Id.* at 8.

The Region then analyzed demographic, health-related, and air quality data.[33] The demographic analysis indicates that 68% of residents living in the North Slope Borough classify themselves as Alaska Natives. *Id.* at 10. In addition, nearly half of North Slope residents speak a language other than English at home. *Id.* The analysis of health data revealed, among other things, that from 1990 to 2007 there has been a 158% rate of increase in the prevalence of diabetes for Alaska Natives residing in the North Slope Borough, whereas during the same time period there has been a 117% rate of increase in the prevalence in diabetes for Alaska Natives throughout the State of Alaska.[34] *Id.* at 11-12. In addition, there is a higher incidence of outpatient visits for respiratory problems ranging from the common cold to pneumonia in the North Slope than in the rest of Alaska. *Id.* at 12.

In the air impacts analysis, the Region addressed the new 1-hour NO_2 NAAQS,[35] the new 1-hour sulfur dioxide ("SO_2") NAAQS, and compliance with other NAAQS standards, including ozone. *Id.* at 15-20. The results of the maximum modeled total impacts under the Permits for 1-hour NO_2, including consid-

[32] The supplemental analysis also includes, for some of the northern Inupiat communities, the distances residents have reported traveling offshore to hunt for traditional subsistence food sources including bowhead whale, seal, and walrus. *See* Supp. EJ Analysis at 7 (noting Nuiqsut residents have traveled up to sixty miles offshore to the north and as far east as Camden Bay to hunt for bowhead whale and that Kaktovik residents have traveled as far as thirty-five miles offshore to hunt for bowhead whale and walrus); *see also Shell 2010 et al.*, 15 E.A.D. at 155 n.80 (noting that subsistence activities, which can take Inupiat residents living on the North Slope far from their local communities and closer to emissions sources, are a potential environmental justice consideration that may be unique to the OCS PSD permitting context).

[33] The Region used demographic information gathered from the 2000 U.S. Census to compare the population of the North Slope Borough to the populations of both the State of Alaska and the entire United States, which served as reference populations for the demographic analysis. Supp. EJ Analysis at 9-11 & n.9. The North Slope Borough consists of the following eight incorporated villages: Point Hope, Point Lay, Wainwright, Atqasuk, Barrow, Nuiqsut, Kaktovik, and Anaktuvuk Pass. *See* Supp. Statement of Basis at 64.

[34] The Region analyzed health conditions in the North Slope Borough utilizing data from the Alaska Native Health Status Report 2009, prepared by the Alaska Native Epidemiology Center and the Alaska Native Tribal Health Corporation. *See* Supp. EJ Analysis at 11 n.12

[35] In response to the Board's remand of the 2010 Permits, Shell submitted a new air quality impacts analysis of the operations authorized in the current Permits, which now require a demonstration of compliance with the new 1-hour NO_2 NAAQS. Supp. EJ Analysis at 15; *see also Shell 2010*, 15 E.A.D. at 150-51 n.76 (explaining that as a consequence of the Board's decision to remand the 2010 Permits, permits issued upon completion of remand proceedings must demonstrate compliance with, among other things, the annual and 1-hour NO_2 NAAQS).

eration of background air quality data,[36] are 81.6 g/m^3 in the Beaufort Sea and 174.0 g/m^3 in the Chukchi Sea. *Id.* at 15, 17. The maximum values were modeled 500 to 2000 meters from the hull of the *Discoverer*, and are both less than the 1-hour NO_2 standard of 188 g/m^3. *Id.* The Region concluded that the 1-hour NO_2 NAAQS is expected to be attained in all areas accessible to the public, including areas both onshore and offshore where local communities engage in subsistence activities. *Id.* (noting that conservative assumptions were used in modeling). The modeled impacts for 1-hour NO_2 in communities located on the Beaufort and Chukchi Seas are all substantially lower than the 188 g/m^3 1-hour NO_2 standard. *Id.* at 16. The Region also explained that in instances where a community is located more than fifty kilometers from the closest lease block, the impact and total concentration at the community is assumed to be the impact and concentration at fifty kilometers from the *Discoverer* in the direction of the community. *Id.* at 16-17. Thus, modeled impacts at communities located more than fifty kilometers from Shell's closest lease block in either the Chukchi or the Beaufort Sea are expected to be even lower than reported in the supplemental environmental justice analysis. *Id.* at 16. As a result, the Region concluded that the 1-hour NO_2 standard will be attained in all locations beyond 500 meters from the hull of the *Discoverer* and will be well below the 1-hour NO_2 NAAQS in North Slope communities and in areas where local communities conduct subsistence activities. *Id.*

The Region next considered Shell's compliance with the new 1-hour SO_2 NAAQS, set at 196 g/m^3, for which Shell included a new modeling analysis of the air quality impacts due to the standard becoming effective in June 2010. *Id.* at 18. Even using conservative modeling assumptions, the modeled impacts for 1-hour SO_2 are expected to be minimal at all locations due in large part to a condition in the Permits that requires Shell to use ultra low sulfur diesel fuel to power the *Discoverer* and the Associated Fleet.[37] *Id.* Based on these modeled impacts the Region concludes that the 1-hour SO_2 standard will be attained at all locations beyond the 500 meter assumed boundary and will be well below the NAAQS in the North Slope communities and in areas where local communities conduct subsistence activities. *Id.*

With respect to other NAAQS, the Region stated that despite increases in emissions from certain units, relative to the 2010 Permits, "overall emissions from

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[36] Background air quality data consists of ambient air quality measurements assumed to be representative of the existing air quality in the project area due to general industrial development on the North Slope. *See* 2010 Chukchi RTC at 147.

[37] In the Beaufort Sea, the worst case modeled 1-hour SO_2 impact at the 500 meter boundary assumed by Shell in its analysis is 35 g/m^3, and in the Chukchi Sea the worst case modeled impact at the 500 meter boundary is 40.3 g/m^3. Supp. EJ Analysis at 18. In communities bordering the Beaufort Sea including Kaktovik, Deadhorse, and Nuiqsut, modeled concentrations are all less than 10% of the 196 g/m^3 1-hour SO_2 NAAQS, and similarly, at fifty kilometers the concentrations in Point Lay and Wainwright bordering the Chukchi Sea are also less than 10% of the 196 g/m^3 SO_2 standard. *Id.*

the Discoverer and the Associated Fleet on an annual and 1-hour basis will be reduced by more than 50%" for oxides of nitrogen ("NO_x"), particulate matter with a diameter of 10 micrometers or less ("PM_{10}"), particulate matter with a diameter of 2.5 micrometers or less ("$PM_{2.5}$"), carbon monoxide ("CO"), and volatile organic compounds ("VOC"), with "lesser but still substantial reductions of SO_2." *Id.* at 18. The Region also noted that with respect to ozone, given that ozone precursor emissions of NO_x and VOC "have decreased substantially in comparison to those permitted under the 2010 Permits, Region 10 continues to believe that emissions from the Discoverer and the Associated Fleet will not cause or contribute to a violation of the ozone NAAQS" as discussed in the statements of basis supporting the 2010 Permits. *Id.* at 20.

Overall, the Region concluded that Shell's proposed OCS activities in the Chukchi and Beaufort Seas will not result in disproportionately high and adverse human health or environmental effects with respect to Alaska Natives residing on the North Slope, and further, that in reaching this conclusion the Region considered the impact on communities engaging in subsistence activities. *Id.* With this background in mind, the Board now turns to the specific assertions both ICAS and Mr. Lum make in support of their arguments that the Region has not complied with its obligation under the Executive Order.

2. *One-Hour NO_2 NAAQS Analysis*

ICAS challenges the Region's consideration of 1-hour NO_2 NAAQS compliance in the supplemental environmental justice analysis on several grounds.[38] ICAS asserts that in addition to NO_2 emissions from the *Discoverer* when it is an

[38] ICAS asserts that the Region erred both when it did not post the supplemental environmental justice analysis on its website until asked to do so, and when it did not include the supplemental analysis within the supplemental statement of basis for the Permits, as other Regions have done. ICAS Petition at 32-33.

First, although the Region did not include the entire supplemental environmental justice analysis in the supplemental statement of basis, the Region made clear that the supplemental environmental justice analysis "is in the record for this action and is summarized here." Supp. Statement of Basis at 62; *see also* Region Response at 38-39 (noting the supplemental statement of basis contained an eight-page summary of the twenty-one page supplemental environmental justice analysis). As long as the supplemental environmental justice analysis in its entirety was in the record and thus available for public inspection and comment, as here, the Board finds no error in including a detailed summary of the supplemental environmental justice analysis, as opposed to the analysis in its entirety, in the supplemental statement of basis. In addition, the Region further explains that while it is not required, the Region fully intended to post the supplemental environmental justice analysis to its website but inadvertently did not until ICAS pointed out the omission. Region Response at 38-39. The Region immediately e-mailed ICAS a copy of the analysis and posted the document to its website. *Id.* at 39. The Board agrees with the Region that the inadvertent and temporary failure to include the supplemental environmental justice analysis on the Region's website amounts to no more than harmless error.

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OCS source and from the Associated Fleet when it is within twenty-five miles of the *Discoverer*, the Region must also account for mobile source NO_2 emissions that remain unregulated by the OCS PSD Permits when assessing potentially adverse health impacts of NO_2 emissions on North Slope communities. ICAS Petition at 26-27. ICAS further asserts that when included in the NO_2 NAAQS analysis, these mobile emissions could collectively cause or contribute to a NAAQS violation. *Id.* at 29. In addition, ICAS challenges the Region's "fatal flaw of the environmental justice analysis," namely the failure to analyze the impacts of Shell's emissions on residents of the North Slope conducting subsistence activities offshore. *Id.* Finally, ICAS challenges the Region's analysis of Shell's 1-hour NO_2 NAAQS compliance based on several technical decisions the Region made. *Id.* at 30.

ICAS's assertion that mobile source emissions that are otherwise unregulated in the context of an OCS PSD permit must be included when calculating the 1-hour NO_2 NAAQS must fail. The Region explains in the supplemental response to comments that the CAA and EPA's implementing regulations make clear that a stationary source does not include emissions from mobile sources. Supp. RTC at 97 (citing CAA § 302(z), 42 U.S.C. § 7602(z) and 40 C.F.R. § 52.21(b)(18), (k)). Nowhere in its petition does ICAS acknowledge the Region's response or attempt to explain why, despite the clear language of the CAA and its implementing regulations, the Region should nonetheless in this instance include mobile source emissions in its calculation of the 1-hour NO_2 NAAQS. As the Board has made clear before, petitioners bear the burden of demonstrating that review is warranted, which includes explaining why a permit issuer's response to comments is inadequate. *See, e.g., Russell City II*, 15 E.A.D. at 11. Here, in the face of the Region's reasoned explanation for why mobile emissions were not included in the 1-hour NO_2 NAAQS calculation, ICAS simply states, "Region 10 failed to undertake an analysis of all of the emissions from Shell's operations." ICAS Petition at 27. ICAS has not met its burden.

ICAS next asserts that the Region erred when the Region concluded it did not have sufficient information to estimate mobile source emissions that may

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(continued)

More generally, ICAS challenges the Region's compliance with the Executive Order based on the adequacy of the public participation the Region afforded interested parties throughout the development of the Permits on remand. ICAS Petition at 31-33; *see also Knauf II*, 9 E.A.D. at 16-17 (distinguishing between objections to the quantity and quality of public participation in the permitting process, including the environmental justice analysis, and substantive objections to the methodology and data used in the environmental justice analysis). ICAS's remaining challenges to the amount and quality of public participation opportunities available pertaining to the supplemental environmental justice analysis appear to mirror its more general arguments regarding the public participation process. *See* ICAS Petition at 7-10. Accordingly, the Board addresses ICAS's challenges to the adequacy of the public participation process, both generally and with respect to the supplemental environmental justice analysis, in Section VI.G below.

cause or contribute to a violation of the 1-hour NO_2 NAAQS. ICAS Petition at 28. Despite the fact that, as explained above, mobile source emissions play no part in a NAAQS impact analysis, the Region actually went further than it was legally required and "nonetheless considered information available to it" and attempted to account for emissions from mobile sources when assessing the impacts of hourly NO_2 exposures on residents of the North Slope.[39] *See* Supp. RTC at 103-04. Nowhere in its petition does ICAS acknowledge the Region's laudable efforts or the Board's recent statement that the Executive Order does not require EPA to reach a determinative outcome when conducting an environmental justice analysis prior to issuing a permit, particularly when the available data is inconclusive. *Avenal*, 15 E.A.D. at 401. Again, ICAS has not met its burden to demonstrate that review is warranted.

The Board agrees with the Region that ICAS's assertion that the Region failed "to *analyze* the impacts of Shell's emissions on subsistence hunters and fishers while offshore," is unsupported by the record. ICAS Petition at 29 & n.19 (emphasis in original). The Region stated in its supplemental environmental justice analysis that mobile source emissions will dissipate while vessels are in transit, Supp. RTC at 104, and the Region also made efforts in the supplemental environmental justice analysis to demonstrate how the subsistence areas located in close proximity to Shell's lease blocks might be affected by Shell's OCS activities. Supp. EJ Analysis at 16-17; *id.* at 7 (discussing distances subsistence hunters, whalers, and fishermen have traveled offshore in search of subsistence foods); *id.* at 8 (depicting subsistence use areas mapped over Shell exploration plan well sites). The Region conducted a supplemental environmental justice analysis that included and analyzed data that is germane to the environmental justice issue raised during the comment period, *see Shell 2010*, 15 E.A.D. at 153-54 n.87, and the Region has demonstrated that it exercised its considered judgment when it juxtaposed the subsistence use areas and the planned exploration areas and discussed the distances between the North Slope villages and the closest lease blocks and well sites, respectively. Although ICAS may disagree with the contents or conclusions of the Region's supplemental environmental justice analysis, ICAS has not demonstrated that this difference in opinion has resulted in an insufficient effort on the Region's part regarding environmental justice, or that the Region failed to analyze impacts.

Finally, ICAS enumerates several problems with the Region's supplemental environmental justice analysis that amount to challenges to the Region's technical

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[39] The Region notes that because emissions from mobile sources are not considered in PSD permitting actions, it had limited information regarding such emissions and thus it had "insufficient information to conclude with certainty whether or not emissions from these different vessels and activities that are not required to be considered in a PSD NAAQS analysis would, in conjunction with permitted emissions, cause or contribute to a violation of the 1-hour NO_2 NAAQS." Region Response at 46-47 (citing *Avenal*, 15 E.A.D. at 401).

expertise. *See* ICAS Petition at 30; Region Response at 44-45. Without elaborating any further, ICAS expresses "significant concerns" with, among other things, installed NO_2 controls and their ability to function properly in cold weather, the use of "diurnal pairing" of NO_2 data, and the need for additional "tracer experiments" to supply data for the AERMOD model. ICAS Petition at 30. It is axiomatic that a challenge to the fundamental technical expertise of a permit issuer requires a petitioner to overcome a particularly heavy burden, and that a successful challenge to a permit issuer's technical expertise must consist of more than just a difference of opinion. *See Shell 2011*, 15 E.A.D. at 203; *accord In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3rd Cir. 1999). Here, ICAS has failed to overcome this particularly heavy burden.

3. *Ozone NAAQS Analysis*

ICAS also challenges the Region's compliance with its obligation under the Executive Order based on the Region's decision to demonstrate compliance with the current 8-hour ozone NAAQS, which is set at 0.75 parts per million ("ppm"), as opposed to the range of 0.60 to 0.70 ppm for the 8-hour ozone NAAQS that was proposed by EPA's Administrator in January 2010 but never finalized. *See* ICAS Petition at 22-24; Region Response at 39-42; Supp. RTC at 94, 108. On September 2, 2011, subsequent to the close of the public comment period and prior to the Region issuing the Permits, the President requested that the Administrator withdraw the proposed 8-hour ozone NAAQS standard, and instead enforce the current 8-hour ozone standard of 0.75 ppm until the ozone standard is reconsidered again in 2013. Statement on the Ozone National Ambient Air Quality Standards, 2011 Daily Comp. Pres. Doc. 607 (Sept. 2, 2011).

The Region asserts that the impact of the proposed revision to the 8-hour ozone standard was raised only in the context of cumulative impacts in comments on the 2010 Permits, Region Response at 40, but that no party petitioned for specific review of the Region's ozone analysis for the 2010 Permits, which is unchanged in the current Permits, and thus the Board should prevent ICAS from circumventing the Board's remand order by raising now the adequacy of the Region's ozone analysis as an environmental justice claim.[40] *Id.* at 41.

The distinct facts surrounding the proposed 8-hour ozone NAAQS revision do not change the procedural posture of the appeal of this issue on remand. Al-

[40] The Region also asserts that ICAS should not be allowed to question any aspect of the Region's technical determination that permitted emissions will not cause or contribute to a violation of the 8-hour ozone NAAQS, and that the Region's technical determination that a modeling analysis for ozone is unnecessary to reach that conclusion should similarly remain uncontested. Region Response at 41.

though ICAS argues to the contrary, the current, enforceable standard that Shell must demonstrate compliance with is 0.75 ppm. As this Board has stated previously, "[a] permit issuer must apply the statutes and implementing regulations in effect at the time the final permit decision is made." *Russell City II*, 15 E.A.D. at 81 n.98 (quoting *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 478 n.10 (EAB 2002)). The Region's decision to require Shell to comply with the 0.75 ppm 8-hour ozone NAAQS is consistent with applicable law and the corresponding regulations in effect at the time the Region issued the Permits.

In addition, ICAS does not demonstrate that the Region's analysis of the impacts the 8-hour ozone standard may have on Alaska Natives residing on the North Slope would result in a disproportionately high or adverse impact on the health of Alaska Natives. The Region explained in the supplemental response to comments supporting the Permits that it chose not to revisit its decision to forego modeling to demonstrate that issuance of the Permits would not cause or contribute to an exceedence of the 8-hour ozone NAAQS, in large part because the most recent ozone data indicates that current ozone levels in the Chukchi and Beaufort Seas are well below even the low end of the range of the proposed 8-hour ozone NAAQS. Supp. RTC at 94. The Region also noted that the contribution of ozone precursors, NO_x and VOC, under these Permits, is small in relation to other sources of precursor emissions in the area. Region Response at 42. Finally, with respect to ICAS's assertion that the Region failed to consider the cumulative emissions of the operations on the Arctic OCS, the Region noted that the PSD regulations only require a permit issuer to consider existing sources, sources that are permitted but not constructed, and sources that have submitted complete PSD applications. *Id.* at 42; Supp. RTC at 95 (citing New Source Review Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting C.32 to C.34 (Oct. 1990)). ICAS fails to demonstrate how the Region's responses to its comments are inadequate, and thus, does not meet its burden of demonstrating that review is warranted. *See, e.g., Russell City II*, 15 E.A.D. at 11.

4. *Impacts of Air Emissions on Traditional Subsistence Food Sources*

Mr. Lum asserts that as a result of Shell's OCS activities, "[h]undreds of tons of exhaust/contaminants will be introduced into the subsistence zones of the coastal Inupiat," which will contaminate the food supply and significantly alter Inupiat culture due to insufficient access to subsistence foods. Lum Petition (Oct. 24, 2011). The Board construes Mr. Lum's assertion as a challenge to the adequacy of the Region's compliance with the Executive Order.

The Board is cognizant that Mr. Lum filed comments on the Permits and that he is representing himself in these proceedings. *See* E-mail from Daniel Lum to Suzanne Skadowski, EPA Region 10 (Aug. 5, 2011, 1:20 pm PDT) ("Lum Comments") (A.R. RRR-24). Yet the issue Mr. Lum raises, the impacts of Shell's

planned air emissions on traditional subsistence food sources utilized by Alaska Natives living on the North Slope, "could have been raised, but [was] not raised, in the [2010 Permit] appeals." *Shell 2010*, 15 E.A.D. at 162; *see also* Region Response at 47 (noting that these concerns were raised in comments on the 2010 Permits and that the Region responded to those comments). As the Board noted earlier in Section III, because the Permits in these appeals were issued subject to a remand, the scope of Board review upon completion of remand proceedings is limited to issues the Region addressed on remand, and to issues raised in the petitions before the Board in the 2010 Permit appeals but not addressed by the Region on remand. *See Shell 2010*, 15 E.A.D. at 162. The Region responded to comments regarding subsistence activities and traditional use in the response to comments accompanying the 2010 Permits. *See* 2010 Chukchi RTC 144-45; *see also* Supp. RTC at 111-14 (responding to comments regarding subsistence activities and traditional use for Permits issued upon completion of remand proceedings in July 2011). However, no party raised this issue in a petition for review of the 2010 Permits. As a result, the Board denies review because the impacts of air emissions on traditional subsistence food sources were not raised at the time of the first appeal. *See, e.g.*, *Knauf II*, 9 E.A.D. at 7 ("All other issues pertaining to this PSD permit should have been raised at the time of first appeal. Issues raised outside of the appeals period on the original permit are considered untimely."), *quoted in In re Upper Blackstone Water Pollution Abatement Dist.*, 15 E.A.D. 302 (EAB 2011) (citing cases consistent with this limitation where the Board has denied review of issues not raised in the initial petition for review, but instead raised in later briefs), *appeal docketed*, No. 11-1474 (1st Cir. Apr. 29, 2011), *appeal docketed sub nom. Conservation Law Found. v. EPA*, No. 11-1610 (1st Cir. May 27, 2011).

5. *Oil Spill Response Capabilities*

Mr. Lum asserts that the EPA has failed to require Shell to demonstrate its oil spill response capabilities in open water, ice floes, and under sheet ice. Lum Petition at 1. The Region responds that this issue, among others, is outside the scope of these permit proceedings and thus is not properly subject to review. Region Response at 47-48.

The Board has previously emphasized that "[t]he PSD review process is not an open forum for consideration of every environmental aspect of a proposed project, or even every issue that bears on air quality." *In re Knauf Fiber Glass GmbH*, 8 E.A.D. 121, 127 (EAB 1999) ("*Knauf I*"), *quoted in In re Sutter Power Plant*, 8 E.A.D. 680, 688 (EAB 1999); *see also In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 259-60 (EAB 1999). The Board has jurisdiction "to review issues directly related to permit conditions that implement the federal PSD program," *Sutter*, 8 E.A.D. at 688, but will deny review of issues not governed by the PSD

regulations because it lacks jurisdiction over them.[41] *Id.*; *see also Encogen*, 8 E.A.D. at 259 (noting that petitioners had not shown how the issues they requested the Board to review fell within the Board's PSD jurisdiction). Moreover, there are often other regulatory programs in place that may address a petitioner's concern. *Knauf I*, 8 E.A.D. at 162; *see also Shell 2007*, 13 E.A.D. at 405 n.66.

EPA's jurisdiction over portions of the OCS applies to air emissions subject to the CAA and its implementing regulations. In this instance, BOEMRE is responsible for implementing regulations that address oil spill and response capabilities.[42] The Board does not have jurisdiction to consider Shell's oil spill and response capabilities in the Arctic OCS, and thus, the Board denies Mr. Lum's petition for review on these grounds.

For all of the foregoing reasons, the Board declines to review the Region's compliance with the Executive Order and applicable Board precedent.

C. *NVPH Petitioners Failed to Raise Below Their Contention That Shell's Ambient Air Quality Analysis Was Flawed in That It Failed to Conform to Applicable Agency Guidance*

On February 9, 2010, EPA published in the Federal Register a final rule (effective April 12, 2010) revising the primary NO_2 NAAQS "in order to provide requisite protection of public health as appropriate under section 109 of the Clean Air Act." Primary NAAQS for NO_2, 75 Fed. Reg. 6474, 6475 (Feb. 9, 2010); *see also* Section VI.B above; *Shell 2010*, 15 E.A.D. at 149-50 & n.74. This rule set the new 1-hour NO_2 NAAQS standard (hereinafter "the 1-hour NO_2 NAAQS") at 100 parts per billion ("ppb") to supplement the existing annual standard, set at

[41] As the Board explained in note 9 above, in its March 2011 order on four additional issues the Board held, among other things, that the Region did not err when it declined to include emissions from unplanned operations of the oil spill and response vessels in Shell's potential to emit analysis. *See Shell 2011*, 15 E.A.D. at 211-20. Although this issue involved the oil spill response vessels, the Board decided the issue because it directly related to the potential to emit analysis required by the PSD regulations.

[42] On December 16, 2011, BOEMRE (now BOEM, see note 29 above) conditionally approved Shell's exploration plan for the Chukchi Sea. Letter from David Johnston, Regional Supervisor for Leasing and Plans, Alaska OCS Region, BOEM, U.S. DOI, to Susan Childs, Shell Gulf of Mexico, Inc. (Dec. 16, 2011) ("Chukchi EP Letter"). The approval of the Chukchi Sea exploration plan was conditioned, among other things, on adjusting the drilling season according to a "'trigger date' established each year by BOEM, based upon the date of first ice encroachment over the drill site within any of the last five years," which is intended "to reduce risks * * * by assuring a greater opportunity for response and cleanup in the unlikely event of a late season oil spill." *Id.* at 2. In addition, Shell will be required "to conduct a field exercise to demonstrate their ability to deploy" the subsea well capping and containment system Shell has committed to have at its disposal. *Id.* at 3-4.

53 ppb.[43] 75 Fed.Reg at 6475. EPA regulations specify how attainment of the standard is to be calculated, providing that the 100 ppb standard is met "when the annual 98th percentile of the daily maximum 1-hour average concentration is less than or equal to 100 ppb, as determined in accordance with Appendix S of this part for the 1-hour standard." 40 C.F.R. § 50.11(f). This calculation is sometimes referred to as "the form." *See* 75 Fed. Reg. at 6477 n.5, 6492-93 .[44] The 100 ppb standard reflects the maximum allowable NO_2 concentrations anywhere in an area. *Id*. at 6493, 6502. In its Supplemental Statement of Basis, the Region stated that the air quality analysis conducted for these Permits demonstrates that the emissions will not cause or contribute to a violation of the 1-hour NO_2 NAAQS and that the Permits include limits that correspond to the 1-hour emissions "from the various emissions units on the Discoverer and the Associated Fleet assumed in Shell's air quality monitoring analysis." Supp. Statement of Basis at 31; *see also id*. at 49-51 (Modeling Results). EPA has issued guidance clarifying procedures for demonstrating compliance with the new 1-hour NO_2 NAAQS. *See* Memorandum from Stephen D. Page, Dir., Office of Air Quality Planning & Standards, U.S. EPA, to Reg'l Air Dirs., U.S. EPA, *Guidance Concerning the Implementation of the 1-Hour NO_2 NAAQS for the Prevention of Significant Deterioration* (June 29, 2010) ("Page Memo") (A.R. BBB-153);[45] Memorandum from Tyler Fox, Leader, Air Quality Monitoring Grp., Office of Air Quality Planning & Standards, U.S. EPA, to Reg'l Air Dirs., U.S. EPA, *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-Hour NO_2 National Ambient Air Quality Standard* (Mar. 1, 2011) ("Fox Memo") (A.R. BBB-80).

NVPH Petitioners assert that Shell's ambient air quality analysis was flawed.[46] In particular, NVPH Petitioners state that in "demonstrat[ing] compli-

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[43] The revised standard became effective in the interim between the prior Shell permits and the revised permits at issue in this case. For a synopsis of the time lines for issuance of the 1-hour NO_2 NAAQS, see *Shell 2010*, 15 E.A.D. at 152-53.

[44] The 98th percentile form corresponds approximately to the 7th or 8th highest daily maximum concentration in a year. 75 Fed. Reg. at 6492.

[45] According to the Page Memo, the guidance was issued in response to reports that sources were modeling potential violations of the 1-hour NO_2 NAAQS. Page Memo at 1. The Memo states that "[t]o respond to these reports and facilitate the PSD permitting of new and modified major stationary sources, we are issuing the attached guidance in the form of two memoranda." *Id.* The attached memoranda are titled "General Guidance for Implementing the 1-hour NO_2 National Ambient Quality Standard in Prevention of Significant Deterioration Permits, Including an interim 1-hour NO_2 Significant Impact Level," and "Applicability of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard." *Id*. at 1-2. Although the Page Memo attaches these two memoranda, the Memo is consecutively numbered as a single document.

[46] In order to establish compliance with the NAAQS and PSD increments, permit applicants must conduct an "ambient air quality analysis," which applicants must prepare under the permitting rules for each regulated pollutant their proposed facilities will emit in "significant" amounts. 40 C.F.R.
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ance with the form, Shell altered the cumulative impacts from which it selected the 98th percentile 1-hour daily maximum. More specifically, NVPH Petitioners allege that Shell used background values that were already adjusted to the 98th percentile, instead of basing its calculations on the full distribution of background values." NVPH Petition at 24 (footnote omitted). According to NVPH Petitioners, this method for demonstrating compliance with the 1-hour NAAQS was rejected in the Page Memo as "not being protective of the NAAQS." *Id.* (quoting Page Memo at 18). NVPH Petitioners then cite to a portion of the more recent Fox Memo which, according to them, allows for the method Shell used to calculate background values. *Id.* at 25. That is, the Fox Memo states that the approach used in the Page Memo was overly conservative and should not be used in most cases. *Id.* (citing Fox Memo at 17-20). NVPH Petitioners assert that the Region allowed Shell to demonstrate compliance with the form of the 1-hour NAAQS using the approach permitted in the Fox Memo without providing an explanation as to why the determination in the Page Memo was incorrect. *Id.* NVPH Petitioners argue that "[b]ecause neither EPA nor the Region provided any explanation about whether and, if so, how, its earlier conclusion [in the Page Memo] that the use of the 98th percentile background values 'is not protective of the national ambient air quality standard' was incorrect, EPA's new guidance and the approach taken by the Region here in reliance on it are arbitrary." *Id.* at 26 (quoting Page Memo at 17-20). NVPH Petitioners contend that the Region had an obligation to explain this "departure from its prior analysis." *Id.*

Upon examination of the record, the Board concludes that this issue was not raised during the comment period and was therefore not preserved for review. As stated above, the regulations require any person who believes that a permit condition is inappropriate to raise "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. That requirement is made a prerequisite to appeal by 40 C.F.R. § 124.19(a), which requires any petitioner to "demonstrat[e] that any issue[] being raised [was] raised during the public comment period * * * to the extent required[.]"). *In re ConocoPhillips Co.*,

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§ 52.21(b)(23)(i), (m)(1)(i). This analysis predicts a pollutant's future concentration in the ambient air by modeling a proposed facility's expected emissions of the pollutant against the backdrop of existing ambient conditions. To conduct an air quality analysis, a permit applicant compiles data on the proposed facility's physical specifications and anticipated emission rates, local topography, existing ambient air quality, meteorology, and related factors. *See*, *e.g.*, *id.* § 52.21(l), (m); *id.* pt. 51 app. W (Guideline on Air Quality Models); *Knauf I*, 8 E.A.D. at 145-48; Office of Air Quality Planning & Standards, U.S. EPA, *New Source Review Workshop Manual* at C.16-.23, .31-.50 (draft Oct. 1990) ("*NSR Manual*"). These data are then processed using mathematical models that calculate the rates at which pollutants are likely to disperse into the atmosphere under various climatological conditions, with the goals of determining whether emissions from the proposed source will cause or contribute to a violation of either the NAAQS or the PSD increments. *See* 40 C.F.R. § 52.21(f); *id.* pt. 51 app. W; *NSR Manual* at C.24-.27, .51-.70.

13 E.A.D. 768, 800-01 (EAB 2008); *accord In re Christian Cnty. Generation, LLC*, 13 E.A.D. 449, 457 (EAB 2008); *Shell 2007*, 13 E.A.D. at 394 n.55.

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. *Russell City II*, 15 E.A.D. at 10; *In re City of Marlborough*, 12 E.A.D. 235, 244 n.13 (EAB 2005), *appeal dismissed for lack of juris.*, No. 05-2022 (1st Cir. Sept. 30, 2005); *In re 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 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.*; *In re Sutter Power Plant,* 8 E.A.D. 680, 687 (EAB 1999). As the Board has 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 *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 (EAB 1999)). "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." *In re Essex County (N.J.) Res. Recovery Facility*, 5 E.A.D. 218, 224 (EAB 1994).

Although NVPH Petitioners' comments on the draft permit asserted that Shell had used background ambient air data in a manner that understated the impact of its operations, *see* NVPH Comments at 7-8, nowhere in these comments did Petitioner assert that Shell's approach conflicted with the Page Memo or that the Region had any obligation to provide an explanation for its alleged departure from the Page Memo.[47] Indeed, NVPH Petitioners' comments recognized that, according to the Fox Memo, Shell's approach is appropriate in certain circumstances. *Id*. at 9. The comments, however, did not assert any conflict between the Page Memo and the Fox Memo nor is it clear to this Board that any such conflict exists.[48] Thus, this "battle of the memos" issue was not preserved for review.

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[47] In its response, the Region asserts that NVPH Petitioner's argument is based on a misreading of the Page Memo. According to the Region, the cited language in the Page Memo does not relate to the 1-hour NO_2 NAAQS, but to the 24-hour $PM_{2.5}$ NAAQS. Region Response at 30. Because the Board concludes that this issue was not raised during the public comment period, the Board does not address this assertion.

[48] *See In re Teck Cominco Alaska, Inc.*, 11 E.A.D. 457, 481-82 (EAB 2004) (denying review where issue was not specifically raised during the comment period). The Board notes that the issue NVPH Petitioners did raise during the comment period was fully and adequately addressed in the Supplemental Response to Comments. Specifically, in commenting on the draft permit, NVPH Peti-
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D. *NVPH Petitioners Failed to Raise Below Their Contention That EPA Erred in Determining That the 1-Hour NO_2 NAAQS Would Be Met Without Separately Determining Compliance with the "Maximum Allowable Concentration" of NO_2*

Congress, in section 165 of the CAA, directs owners and operators of proposed major emitting facilities to demonstrate that emissions from the construction or operation of their facilities "will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part applies more than one time per year,[49] (B) national ambient air quality standard [NAAQS] in any air quality control region, or (C) any other applicable emission standard or standard of performance under this chapter." CAA § 165(a)(3), 42 U.S.C. § 7475(a)(3). EPA's regulations implement this provision by requiring, among other things, that each applicant for a PSD permit conduct a "source impact analysis." *See* 40 C.F.R. § 52.21(k). As part of this analysis, the owner or operator of the proposed source or modification must "demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of: (1) any national ambient air quality standard in any air quality control region; or (2) any applicable maximum allowable increase over the baseline concentration in any area." *Id.*

NVPH Petitioners assert that the Region violated section 165(a)(3) of the Act by failing to require that Shell demonstrate that its NO_2 emissions will not cause pollution in excess of the 100 ppb maximum allowable concentration level. According to Petitioners,

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tioners raised the argument that Shell had failed to demonstrate compliance with the 1-hour NO_2 NAAQS because, according to NVPH Petitioners, Shell used background ambient air data in a manner that understated the impact of its operations. NVPH Comments at 7-8. As stated above, NVPH Petitioners' comments recognized that Shell's approach to analyzing background data was consistent with the Fox Memo, but argued that Shell's approach was inconsistent with the 1-hour NO_2 NAAQS standard itself. *Id.* at 8. The Region provided a detailed response to this assertion in the Supplemental Response to Comments. Supp. RTC at 75-76; *see also id.* at 68-71. Nothing in the NVPH Petition indicates why the Region's response on this issue was erroneous or otherwise warrants Board review, nor does the Board find anything erroneous in the Region's response. Thus, even had Petitioners preserved this issue, the Board would deny review. *See, e.g., In re Guam Waterworks Auth.*, 15 E.A.D. 437, 450 (EAB 2011) (stating that "a petitioner may not simply reiterate comments made during the public comment period, but must substantively confront the permit issuer's explanations in its response to comments document"); *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33 (EAB 2005) (same).

[49] This clause refers to what are commonly known as "PSD increments." *See, e.g., Shell 2010*, 15 E.A.D. at 127 n.40 (discussing CAA section 165(a)(3) requirements).

> [t]he unambiguous language of Section 165(a)(3) of the Clean Air Act requires a PSD applicant to demonstrate compliance not only with the [NAAQS] overall, but also with a separate, stricter standard for each pollutant which is a component of the overall national ambient quality standard: the "maximum allowable concentration." 42 U.S.C. § 7475(a)(3). While it may be permissible for the Region to use the more lenient "form" to gauge whether Shell's pollution would lead to a violation in an air quality region of the overall 1-hour NO_2 standard pursuant to section 165(a)(3)(B), section 165(a)(3)(A) makes plain that Shell *also* must demonstrate compliance with the 100 ppb "maximum allowable concentration."

NVPH Petition at 10-11.

Because this issue was not raised during the public comment period, it was not preserved for review. During the comment period, NVPH Petitioners stated that the Permits may not be issued absent a demonstration that emissions would not "cause or contribute to air pollution in violation of any NAAQS or increment." NVPH Comments at 4. NVPH Petitioners also asserted that, in determining compliance with the NAAQS, the Region erred by "allowing a proposed new source to discount its highest project impacts." *Id.* at 5 n.1. According to NVPH Petitioners, "such an approach ignores both the importance of the absolute value of the NAAQS standard – which must be set at the requisite level to protect human health * * * as well as the PSD program requirement that a proposed new source demonstrate that it will not cause a NAAQS exceedance."[50] *Id.* Nowhere in their comments do NVPH Petitioners use the term "maximum allowable concentration" or assert any specific violation of section 165(a)(3)(A). Specifically, NVPH Petitioners' comments did not contend that "maximum allowable concentration" created a requirement separate from the requirement to demonstrate that allowable emissions from the source, in conjunction with other applicable emissions increases or reductions, would violate the 1-hour NO_2 NAAQS standards, or would

[50] The Region fully and adequately responded to these comments. *See* Supp. RTC at 68-69. In particular, the Region responded that "Shell's approach for demonstrating compliance with the 1-hour NO_2 standard is consistent with the form of the NAAQS and EPA guidance on demonstrating compliance with the 1-hour NO_2 NAAQS." *Id.* at 68. The Supplemental Response to Comments states further that "[a]lthough it is true that the modeling showed individual 1-hour impacts higher than the 100 ppb * * * level of the 1-hour NO_2 NAAQS, the 98th percentile point of the annual distribution of daily maximum 1-hour concentrations does not exceed 100 ppb * * * at any location that constitutes ambient air." *Id.* Petitioners do not make clear why the Region's responses to these comments were clearly erroneous or otherwise warrant Board review of the Region's position on "maximum available concentration." *See Guam Waterworks*, 15 E.A.D. at 450.

exceed an allowable increase over the area's baseline concentration. Accordingly, the Board denies review of this issue.

E. *NVPH Petitioners Have Not Demonstrated That the Region Clearly Erred in Determining the Ambient Air Exemption*

NVPH Petitioners allege that the Region clearly erred in exempting the area within a 500 meter radius from the *Discoverer* from the definition of "ambient air."[51] NVPH Petition at 27. This area is also referred to throughout the record as the United States Coast Guard ("USCG") "safety zone." *See*, *e.g.*, Supp. RTC at 39-41. NVPH Petitioners claim that the Region's decision "contravenes both EPA's definition of 'ambient air' as well as EPA's longstanding interpretation of that regulation." NVPH Petition at 28. In particular, they assert that the Region's 500 meter ambient air boundary fails to meet either of the two criteria the Agency has previously used in evaluating the appropriateness of an exemption. *Id.* at 28-30. According to NVPH Petitioners, the Region's decision essentially allows Shell to emit more pollution, and possibly with fewer controls, than would otherwise be lawful.[52] *Id.* at 27.

The CAA regulations define "ambient air" as "that portion of the atmosphere, external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e). Based on this definition, the Agency has, on occasion, exempted certain

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[51] For an area that is not considered within the definition of "ambient air," Shell would not have to demonstrate compliance with the NAAQS and PSD increments. Supp. RTC at 41.

[52] In their reply brief, NVPH Petitioners argue that the Region, in its response, "asserts a new rationale and cites new authority to support its determination to exclude from 'ambient air' the area within a radius of 500 meters from the *Discoverer* drillship." NVPH Reply Brief at 2. The Board agrees that a portion of the Region's current explanation for exempting the 500 meter safety zone was not explicitly included in the Region's Supplemental Response to Comments document (or supporting documents cited therein). In particular, the Region did not rely on the argument that the very nature of the conditions at the site – the remote location, the hostile environment, and the harsh and rugged seas – constitute a natural barrier akin to a barrier generally required by the "longstanding interpretation's" second criterion. *Compare* Region Response at 18, 20, *with* Supp. RTC at 39-41. As the Board has stated in the past, a permit issuer may not rely on justifications for permit conditions not included in the administrative record and raised for the first time on appeal. *E.g.*, *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 424 (EAB 1997); *In re Chemical Waste Mgmt.*, 6 E.A.D. 144, 151-52 (EAB 1995); *In re Amoco Oil Co.*, 4 E.A.D. 954, 964 (EAB 1993); *see also In re Austin Powder Co.*, 6 E.A.D. 713, 718 (EAB 1997) (remanding so that the permit issuer could reconcile its two rationales and provide a clear basis for the determination). Because the reasons that are specified in the administrative record are sufficient, on their own, to support the Region's decision, the Board only considers the rationale that is included in the Supplemental Response to Comments document and documents cited therein.

With respect to the "new authorities" the Region cites, the Board may take official notice of and consider any Agency statements made in publically available Federal Register notices (published prior to the permit's issuance), including those Federal Register notices cited in the Region's response. *E.g., Russell City II*, 15 E.A.D. at 36 (listing cases and examples of relevant non-record governmental documents of which the Board has taken official notice).

areas from the definition of ambient air. *E.g.*, Letter from Steven C. Riva, Chief, Permitting Sec., U.S. EPA Region 2, to Leon Sedefian, Air Pollution Meteorologist, N.Y. State Dep't of Env't Conservation at 1-2 (Oct. 9, 2007) (A.R. BBB-25) ("Broadwater Letter"); Letter from Douglas M. Costle, Adm'r, U.S. EPA, to Sen. Jennings Randolf, Chairman, Env't & Pub. Works Comm., at 1 (Dec. 19, 1980) (A.R. BBB-1) ("Costle Letter"); *see also* Letter from Nancy Helm, Federal and Delegated Air Programs, U.S. EPA, to John Kuterbach, Alaska Dep't of Envtl. Quality, at 2 (Sept. 11, 2007) (area exempt if certain conditions met) ("Helm Letter"). The parties agree that the Agency's "longstanding interpretation" of this exemption is described in a letter signed by former EPA Administrator Douglas Costle, which states that "the exemption from ambient air is available only for the atmosphere over land owned or controlled by the source and to which the public access is precluded by a fence or other physical barriers." Costle Letter at 1; NVPH Petition at 28 (quoting same letter); Region Response at 18 (same); Shell Response at 15 (same); *see also* Supp. RTC at 39 (same). The Costle Letter also indicates that, in determining whether the exemption applies, the Agency reviews "individual situations on a case-by-case basis." Costle Letter at 1; *see also* Approval and Promulgation of State Implementation Plans, 50 Fed. Reg. 7056, 7057 (Feb. 20, 1985) (noting that, in considering ambient air exemptions, "individual variations in the type of land and nature of the limitation on access necessitate a case-by-case evaluation of the facts, and application of the principles involved in this determination").

Here, in its permitting decisions, the Region determined that, as long as certain permit conditions were being met, it was appropriate to set the ambient air boundary at a 500 meter radius from the *Discoverer*, or, in other words, the 500 meter radius "safety zone" was exempt from the ambient air definition. Supp. RTC at 39; Supp. Statement of Basis at 26-27 & n.15. The terms and conditions upon which the Region relied to exempt this area prohibit the operation of vessels and emissions units unless (1) the USCG establishes a safety zone within at least 500 meters from the center of the *Discoverer*, (2) members of the public are precluded from entering the safety zone, and (3) Shell develops and implements a "public access control program."[53] Chukchi Permit at 10; Beaufort Permit at 12. The Region determined that, as long as these safety zone and public access restriction

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[53] The precise terms and conditions of the Permits are as follows:

> The permit does not authorize operation unless:
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> a. The Discoverer is subject to a currently effective safety zone established by the [USCG] which encompasses an area within at least 500 meters from the center point of the Discoverer and which prohibits members of the public from entering this area except for attending vessels or vessels authorized by the USCG (such area shall be referred to as the "Safety Zone"); and

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permit conditions are complied with, exempting the area within the safety zone from the ambient air definition would generally be consistent with previous Agency interpretations. Supp. RTC at 39-40. In so finding, the Region noted that "[g]iven that the permitted activities occur over open water in the Arctic, the[] criteria [for exemption included in the Costle Letter] must be adapted to some extent when applied to this environment." *Id*. In specifically considering the applicability of the two exemption criteria, the Region stated:

> Region 10 recognizes that Shell does not "own" the areas of the Beaufort and Chukchi Seas on which the Discoverer will be operating as might be the case for a stationary source on land. Shell has a lease authorizing the company to use these areas for the activities covered by the permits. The Coast Guard safety zone establishes legal authority for excluding the general public from the area inside the zone. EPA has previously recognized a safety zone established by the Coast Guard as evidence of sufficient ownership or control by a source over areas over water so as to qualify as a boundary for defining ambient air where that safety zone is monitored to pose a barrier to public access. Letter from Steven C. Riva, EPA Region 2, to Leon Sedefian, New York State Department of Conservation, re: Ambient Air for the Offshore LNG Broadwater Project, dated October 9, 2007 (Broadwater Letter).
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> To meet the second of the criteria applied by EPA and ensure the source actually takes steps to preclude public access, Shell proposed and Region 10 required as a condition of operation under the permits that Shell develop in writing and implement a public access control program to locate, identify, and intercept the general public by radio, physical contact, or other reasonable measures to inform

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> b. Shell has developed in writing and is implementing a public access control program to:
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> - locate, identify, and intercept the general public by radio, physical contact, or other reasonable measures to inform the public that they are prohibited by Coast Guard regulations from entering the Safety Zone; and
> - communicate to the North Slope communities on a periodic basis when exploration activities are expected to begin and end at a drill site, the location of the drill site, and any restrictions on activities in the vicinity of Shell's exploration operations.

Chukchi Permit at 10; Beaufort Permit at 12; *accord* Supp. RTC at 41.

> the public that they are prohibited by Coast Guard regulations from entering the area within 500 meters of the Discoverer. Region 10 believes that, for the overwater locations in the arctic environment at issue in these permitting actions, such a program of monitoring and notification is sufficiently similar to a fence or physical barrier on land such that the area within the Coast Guard safety zone qualifies for exclusion from ambient air. *See* Broadwater Letter at 2.

Supp. RTC at 40.[54]

Upon consideration of the administrative record and the parties' arguments, the Board concludes that Petitioners have not shown that the Region clearly erred in its decision to exempt the area within the USCG safety zone from the definition of "ambient air." The Region, in its Supplemental Response to Comments document, provided a reasonable interpretation of the ambient air regulation and the Agency's "longstanding interpretation" of that regulation as applied in the OCS context. As the Region rightly noted, the regulation and the Costle Letter, by their very terms, were clearly written with overland situations in mind. *See* 40 C.F.R. § 50.1(e) (referring to "buildings"); Costle Letter at 1 (referring to "land" and "fences"). Furthermore, the Region's analysis was entirely consistent with a similar analysis undertaken by Region 2 in which that Region determined that it was appropriate for a permittee to use the USCG safety zone to define an ambient air boundary around a proposed offshore liquefied natural gas facility. *See* Broadwater Letter at 2. The Broadwater Letter, moreover, suggests that Region 2's analysis, as well as Region 10's, is not unique, stating that "*[i]n previous permitting decisions involving * * * drilling operations*, *EPA Regional offices have used the USCG's safety zone as the boundary for defining ambient air*." *Id*. at 2 (emphasis added). The letter explains that the Agency has found that "[t]he 'safety zone' approach represents a reasonable surrogate for a source's fence or physical barrier and thus could act as an ambient air boundary." *Id*. Thus, while it is true, as Petitioners allege, that the Agency has generally required the source to own or control access over the area in question for that area to meet the first criterion, NVPH Petition at 28-29, this requirement has been for sources located on land.[55] *See*,

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[54] NVPH Petitioners also contend that the Region's approach is flawed because it "is based upon an assumption that Shell will request, and the [USCG] will establish, a safety zone restricting the passage of other vessels." NVPH Petition at 27. This argument is unpersuasive because it seemingly fails to recognize that, as the permit conditions quoted in note 53 state, operation of vessels is prohibited unless and until these two conditions are met. *See* Chukchi Permit at 10; Beaufort Permit at 12.

[55] In support of their contention, NVPH Petitioners rely heavily on a previous Agency determination that leased property could not be exempted from the definition of ambient air because the lessee did not have control over access to its leased property (only the landlord did). NVPH Petition at 29

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e.g., Helm Letter at 1 (referring to possible exemption near coal-fired power plant); Memorandum from Steven D. Page, Director, Office of Air Quality Planning & Standards, U.S. EPA, to Reg'l Air Div. Dirs., U.S. EPA (June 22, 2007) (A.R. BBB-21) (discussing the applicability of the exemption where a source locates on "land" being leased to them by another source). As already noted, the Region (and the Agency before it) reasonably determined that application of the regulation and the interpretive letter to an "overwater" situation requires some leeway. NVPH Petitioners' reliance solely on land-based exemption decisions is unpersuasive.[56] Finally, as mentioned above, the Agency has consistently taken the position that ambient air exemption determinations are analyzed on a case-by-case basis.

For all the reasons stated above, NVPH Petitioners have not shown that the Region clearly erred in its ambient air exemption determination. Consequently, review based on this issue is denied.

F. *ICAS Has Failed to Demonstrate That the Region Abused its Discretion in Declining to Include Additional Permit Limitations on Methane Emissions*

During the permitting process for the revised *Discoverer* permits, Shell requested the inclusion of permit conditions limiting greenhouse gas ("GHG") emissions to below the 75,000 tons per year ("tpy") "subject to regulation" threshold. *See* 40 C.F.R. § 52.21(b)(49)(iv) (stating that beginning January 2, 2011, GHGs are subject to regulation if a new source will emit or has the potential to emit

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(citing Helm Letter). Petitioners assert that this onshore interpretation must apply equally to an OCS lease issued by BOEMRE. *Id*. As the Petitioners themselves note, federal courts have found agency action to be arbitrary when the agency's "explanation 'runs counter to the evidence,'" *id*. (quoting *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)), and "'the agency offer[s] insufficient reasons for treating similar situations differently,'" *id*. (quoting *Transactive Corp. v. United States*, 91 F.3d 232, 237 (D.C. Cir. 1996)); *see also FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514-15 (2009) (discussing standard of review of an agency's policy change). Here, not only are the situations dissimilar enough to arguably not be governed by these cases, but the Agency did offer persuasive reasons for treating the two situations differently.

[56] NVPH Petitioners' arguments that the Region's determination fails to meet the second criteria because the safety zone "fails to effectuate a barrier that 'precludes' public access" are equally unpersuasive. NVPH Petition at 29. NVPH Petitioners focus on the fact that the USCG will limit access to the area based on safety concerns rather than for air quality considerations. *Id*. at 29-30. The important fact is that access within the zone will be strictly limited, not the reason behind it. Moreover, NVPH Petitioners do not address the other condition of the permit that the Region relied upon for its ambient air boundary determination: the public access control program Shell is required to implement. The Board does not find clear error in the Region's conclusion that, based on the USCG limiting access to the safety zone and the public access control program, the latter of which will include notification to the local residents of the location of the drilling and the fact that the public is restricted from the safety zone, the general public will not have access to the area inside the safety zone.

75,000 tpy or more of carbon dioxide equivalent ("CO_2e"); PSD and Title V GHG Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010).[57] In response to Shell's request, the Region included permit conditions in the revised permits limiting GHG emissions to 70,000 tpy (below the regulatory threshold). As the Region explained:

> Shell has requested that Region 10 include in each permit limits on the [potential to emit [58] ("PTE")] GHGs such that it would not be subject to PSD for GHGs. * * * The 2011 Revised Draft Permits therefore include conditions that ensure that the PTE GHGs will not exceed 70,000 tpy CO_2e along with monitoring, recordkeeping, and reporting requirements to ensure that the conditions are enforceable as a practical matter.

Supp. Statement of Basis at 29.[59]

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[57] GHGs are defined as "the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydroflourocarbons, perflourocarbons, and sulfur hexaflouride." 40 C.F.R. § 52.21(b)(49)(i). CO_2e represents the amount of GHGs emitted and is computed by "[m]ultiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 subpart A of [40 C.F.R.] part 98 of this chapter – Global Warming Potentials." *Id.* at (b)(49)(ii)(*a*).

[58] 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). Under the Clean Air 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"). 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. *See Shell 2007*, 13 E.A.D. at 365-66.

[59] In cases where a source's PTE would otherwise be significant, the source may request that PTE be limited to levels beneath applicable regulatory thresholds thereby avoiding PSD review and application of BACT. Such a source is called a "synthetic minor" source (in contrast to a "natural minor" whose emissions would not exceed significance thresholds even when operating at full capacity without additional pollution control equipment). EPA guidance defines the term "synthetic minor" as "air pollution sources whose maximum capacity to emit air pollution under their physical and operational design is large enough to exceed the major source threshold but [is] limited by an enforceable emissions restriction that prevents this physical potential from being realized." Memorandum from

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The bulk of GHG emissions that the Permits authorize result from the combustion of fuel in engines and boilers and the combustion of waste in incinerators (hereinafter "combustion sources"). *Id.* at 29. The Permits contain various operational, monitoring, and recordkeeping requirements to ensure that GHG emissions from these sources do not exceed the Permits' 70,000 tpy limitation.[60] In addition to combustion sources, a relatively small amount of GHGs (0.12%) in the form of methane are emitted from the drilling mud system ("DMS").[61] *Id.* at 30; Supp. RTC at 29. For both Permits, the Region estimated an unrestricted PTE for methane emissions from DMS operations of 0.798 tons per month (the equivalent of 17 tons per month ("tpm") CO_2e). Supp. Statement of Basis at 30; RTC at 29. The Permits assume methane emissions reflecting the sources' full PTE of 17 tpm CO_2e without imposing additional limitations or requiring pollution control equipment.[62] In determining compliance with the Permits' overall GHG limits, these methane emissions (reflecting the unrestricted PTE) are added to emissions from combustion sources. Supp. Statement of Basis at 30.

In its petition for review, ICAS asserts that the Region erred by failing to include permit conditions containing enforceable permit limitations for emissions of methane from the DMS, such as monitoring requirements or production limits

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John S. Seitz, Dir., Office of Air Quality Planning & Standards, U.S. EPA, to Reg'l Air Dirs. and Counsels, U.S. EPA, *Potential to Emit Transition Policy for Part 71 Implementation in Indian Country* 2 n.2 (Mar. 7, 1999).

[60] As the Region points out in the supplemental RTC, the Permits contain operational limits on the amount of time a source can operate, the amount of fuel and waste combusted, and the type of fuel combusted to ensure compliance with GHG emissions limitations. *See* Supp. RTC at 27 (citing Beaufort and Chukchi final permit conditions B.2.1 – .3, B.2.5, B.6.2 – .3, B.5, and B.7). In addition, the supplemental RTC states that the permits include "monitoring and recordkeeping requirements to document when emissions must be counted towards these limits, testing requirements that establish source-specific emission factors, monitoring requirements to track and document the fuel and waste combusted, and maintenance requirements to ensure the emissions units are properly operated and maintained." *Id.* (citing Beaufort and Chukchi permit conditions B.2.4, B.4, B.5.2, B.6.4, B.7.2, B.25, C.8, and C.9).

[61] As the Region stated in its Supplemental Statement of Basis:

> When wells are drilled through porous, hydrocarbon bearing rock, drilling fluids (mud) circulated through the drill bit can carry gaseous hydrocarbons from the well back to drillship. These gases are typically released as fugitive emissions when the mud is processed for reuse on the drillship and stored on the Cuttings/Mud Disposal Barge; however, some of the emissions pass through a vent.

Supp. Statement of Basis at 30.

[62] Condition B.6.1.3 in both the Beaufort and Chukchi Permits states: "To account for mud off-gassing, monthly [methane] emissions from the drilling mud shall be assumed to be 0.798 tons/month." Beaufort Permit at 27; Chukchi Permit at 21.

on the amount of mud processed. ICAS Petition at 17-18. In support of this assertion, ICAS cites to EPA guidance as well as prior Board cases requiring that owner requested limitations on PTE be enforceable as a practicable matter. *Id.* at 17-20. Upon consideration, the Board concludes that ICAS has failed to establish that review is warranted.[63]

As ICAS correctly states, and as this Board has previously held, owner requested limits on a source's PTE must be legally and practically enforceable. *See In re Peabody W. Coal Co.,* 12 E.A.D. 22, 30-31 (EAB 2005). As stated above, however, the Permits in this case do not include owner requested limits on PTE for methane emissions. Rather, as the Region stated in its Supplemental Response to Comments document, methane emissions were assumed to occur at the sources' maximum expected capacity over the five-month drilling season without pollution control equipment or other operational restrictions. *See* Supp. RTC at 28. The Region assumed methane emissions reflecting the sources' full PTE for the five-month drilling season (0.798 tons per month), and the Permits count these emissions towards the total GHG limitation of 70,000 tpy. *See* Supp. Statement of Basis at 30 (stating that Shell has agreed to count all methane emissions occurring during five-month drilling season in measuring the sources' total GHG emissions). The Region determined that because these unrestricted emissions of methane (when combined with GHG emissions from combustion sources) would not result in an exceedance of the Permits' total GHG emissions limit, additional per-

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[63] ICAS states that it was unable to evaluate the basis for Shell's estimates of methane emissions from DMW operations because Shell did not release its estimates until after the close of the comment period. ICAS Petition at 19 n.9. However, in response to comments expressing concerns regarding the PTE calculation for methane, the Region stated the following:

> Region 10 requested Shell to re-examine its estimate and provide the well information previously-claimed by Shell as confidential to confirm that the estimate of methane potential to emit it previously provided to Region 10 is a reasonable upper-bound estimation. See email from Susan Childs, Shell, to Doug Hardesty, Region 10, re: Shell Mud and Cuttings Degassing Emissions, dated September 16, 2011. The information provided shows that Shell relied on well pressure, temperature, porosity, and depth of the hydrocarbon bearing zone from past Arctic exploration projects in its estimation.

Supp. RTC at 29. Thus, ICAS had the opportunity to evaluate the basis for Shell's PTE estimates and the Region's assessment of those estimates in preparing its appeal to this Board. *See In re Cape Wind Assoc., LLC*, 15 E.A.D. 327, 332-33, 335 (EAB 2011) (permit issuer is authorized to supplement the administrative record with new information and to revise its analysis (citing 40 C.F.R. §§ 124.17(a) (requiring the response to comments to identify changes to the draft permit and to include a response to all significant comments), .17(b) (authorizing EPA permit issuers to add new material to the administrative record in response to comments), .18(b) (defining the administrative record))); *see also Dow Agrosciences, LLC v. Nat'l Marine Fisheries Serv.*, 821 F. Supp 792, 810 (D. Md. 2011) (allowing agency to supplement the administrative record where the additional information serves to illuminate or explain matters in the record).

mitting restriction limits were not required.[64]

Under these circumstances, ICAS's reliance on the requirement that permits include conditions ensuring the enforceability of limitations on a source's PTE is misplaced, as the Permits do not contain owner requested limits on methane emissions or otherwise limit the sources' PTE from DMS operations.[65] Because the Permits count all methane emissions from DMS operations (to the full extent of the sources' PTE) towards the Permits' total allowable GHG emissions,[66] the Board concludes that the Region did not abuse its discretion in determining that additional permit conditions (otherwise necessary to ensure the enforceability of PTE limitations) were not required in these Permits.[67] Accordingly, the Board de-

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[64] In its reply brief, ICAS asserts that the Region changed its rationale during these appeal proceedings for declining to include additional permit conditions regulating methane emissions. The Board disagrees. In its response to comments on this issue, the Region stated, in part, that emissions were calculated based on the maximum expected capacity over the course of the drilling season and that the Permits, as written, were sufficient to ensure compliance with GHG limits. *See* Supp. RTC at 28. The Board finds that the Region's response in these proceedings is consistent with this rationale.

[65] *See* Memorandum from Terrell E. Hunt, Assoc. Enforcement Counsel, Office of Enforcement & Compliance Monitoring, U.S. EPA, & John S. Seitz, Dir., Office of Air Quality Planning & Standards, U.S. EPA, to Reg'l Counsels & Air Dirs., U.S. EPA, *Guidance on Limiting Potential to Emit in New Source Permitting* (June 13, 1989) (stating that in order to limit PTE permits "must contain a production or operational limitation in addition to the emissions limitation in cases where the emissions limitation *does not* reflect maximum emissions of the source operating at full design capacity without pollution control equipment").

[66] As stated in the supplemental RTC, GHG emissions from the DMS represent only 0.12% of total GHG emissions allowed under the permits (70,000 tpy). Supp. RTC at 29. As stated above, the Permits contain enforceable operational, monitoring, and recordkeeping requirements for combustion sources of GHGs (constituting the bulk of GHG emissions). The ICAS Petition does not contest the enforceability of these permit conditions.

[67] In a similar vein, ICAS asserts that the Permits' overall limit on GHG emissions from Shell's operations of 70,000 tpy of CO_2e is insufficient by itself to ensure the enforceability of methane emission limits or ensure that "any other greenhouse gas emissions are capped." ICAS Petition at 20. According to ICAS, "[t]his is because 'limits' that fail to restrict production or operations are simply not enforceable." *Id.* However, because the permit assumes methane emissions at the sources' full and unrestricted PTE, the Region determined that additional operational or production limits were not required. *See* Supp. RTC at 28-29. As stated above, ICAS has failed to establish that the Region's determination was clearly erroneous or otherwise warrants review. Further, contrary to ICAS's assertion, the Permits include enforceable conditions ensuring compliance with the 70,000 tpy cap on CO_2e emissions. *See id.* at 27-29.

The Board notes further that the Region's Supplemental Response to Comments document contains a detailed response to the assertion that permit conditions restricting the sources' PTE for CO_2e are insufficient to ensure compliance with the Permits' 70,000 tpy GHG limit. *See id.* at 27-29. Nothing in the petition or the record on appeal indicates why the Region's response was clearly erroneous or otherwise warrants review by this Board, nor does the Board find anything erroneous in the Region's response. *See, e.g., In re Guam Waterworks Auth.*, 15 E.A.D. 437, 450 (EAB 2011).

nies review of this issue.[68]

G. *ICAS Has Failed to Demonstrate That the Region Clearly Erred or Abused Its Discretion in Only Providing Thirty Days to Comment on the Concurrently Issued Draft Chukchi and Beaufort Permits During the Remand Period*

ICAS claims that the Region "committed clear legal error by failing to provide the public an adequate opportunity to comment" on the draft permits on remand. ICAS Petition at 7. More specifically, ICAS alleges that the Region failed to meet the part 124 procedural requirements that require permit issuers to "allow *at least* 30 days for public comment" on draft permits. *Id*. (citing 40 C.F.R.

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[68] To the extent that ICAS is objecting to the PTE calculation itself, ICAS has failed to establish that review is warranted. The Region fully and adequately responded to comments questioning the PTE calculation. In particular, the Region stated, in part:

> Methane emissions from the [DMS] are subject to an operational restriction limiting operations to the five months between July and November and this operational limit is accompanied by monitoring in the form of recordkeeping. [(Citing Condition B.3 in both permit)]. In this case, Shell calculated the potential methane emissions from the drilling mud system based upon the maximum expected capacity over the five-month period of operation taking into consideration inherent physical limitations and actual well data. Relying upon reasonable projections of potential emissions where inherent physical limitations exist is consistent with EPA's guidance for grain terminals. See Memorandum from John Seitz, EPA, re: Calculating Potential to Emit (PTE) and Other Guidance for Grain Handling Terminals, dated November 14, 1995.
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> * * *
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> In addition, Region 10 assumed that what Shell estimated as its emissions over the five month drilling season would occur during *each* of the five months (thus increasing the potential to emit from this source by a factor of five) to provide a wide margin of safety in the estimate of potential to emit for the drilling mud system. For comparison purposes, EPA recommends grain terminals apply a safety factor of 1.2 to the highest of the previous five years of throughput to constitute a realistic upper-bound potential to emit. See Memorandum from John Seitz, EPA, re: Calculating Potential to Emit (PTE) and Other Guidance for Grain Handling Terminals, dated November 14, 1995, at 5. It is important to emphasize that, even with these conservative assumptions, the GHG emissions (85 tons per year CO_2e) from the drilling mud system represent only 0.12% of the total GHG emissions (70,000 tons per year CO_2e) allowed under each permit.

Supp. RTC at 28. Nothing in the petition convinces the Board that the Region's technical determinations on this issue were clearly erroneous or otherwise warrant review. *See*, *e.g.*, *Peabody,* 12 E.A.D. at 41 (petitioner seeking review of issues fundamentally technical in nature bears a particularly heavy burden because the Board generally defers to the permit issuer on questions of technical judgment).

§ 124.10(b)) (emphasis added by Petitioners). Although ICAS acknowledges that the comment periods for both the Chukchi and the Beaufort Permits ran from July 6 to August 5, 2011, an interval of thirty days, ICAS contends that, because the comment periods were entirely concurrent and also partially coincided with the comment periods for two other proposed air permits,[69] the Region "at most provided the public with 15 days to comment on each major source permit for the Discoverer." *Id.* This is because, according to ICAS, in reality, "local communities only have the capacity to comment on one air permit at a time." *Id.* at 8 tbl.1. ICAS notes that the Region had previously provided non-overlapping forty and sixty-day comment periods when it had issued earlier draft versions of these same permits. *Id.* at 9 & n.3; *see also* Supp. RTC at 11. ICAS also claims that "the short and overlapping comment periods * * * deprived them of a meaningful opportunity to comment on Shell's new air modeling results." ICAS Petition at 10.

In addition, ICAS questions the Region's rationale for denying Petitioners' request "to hold non-overlapping comment periods on the OCS permits and to provide 45 days to comment on each permit," a request ICAS made before any of the draft permits were issued. *Id.* at 9; *see id.* attach. 11 (Letter from Harry Brower, AEWC Chariman, et al., to Doug Hardesty, Air Permits Project Manager, U.S. EPA Region 10 (June 15, 2011) (DDD-31)) (AEWC and ICAS request for non-overlapping comment periods); *id.* attach. 12 (Letter from Richard Albright, Director, Office of Air, Waste, & Toxics, U.S. EPA Region 10, to Harry Brower, AEWC Chairman, et al. (July 21, 2011) (DDD-58)) (EPA response) ("Region 10 Letter"). ICAS argues that the Region's offer to meet with them during the comment period was "not equivalent to providing sufficient time for public review." *Id.* at 10.

The part 124 procedural regulation governing public notices and public comment periods specifically provides that "[p]ublic notice of the preparation of a draft permit * * * shall allow at least 30 days for public comment." 40 C.F.R. § 124.10(b)(1). The regulation, therefore, establishes a minimum comment period length of thirty days but allows the permit issuer, in its discretion, to grant a longer comment period. *Id.*; *accord In re Russell City Energy Ctr.* ("*Russell City I*"), 14 E.A.D. 159, 164 n.6 (EAB 2008); *In re Genesee Power Station*, 4 E.A.D. 832, 841 (EAB 1993) (public comment period "only required to last 30 days").

In this case, the Region provided thirty days for public comment for each of the permits, albeit concurrent thirty-day periods. The Region therefore provided

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[69] The Region issued two other draft air permits for public comment around this same time: (1) a permit for Shell to operate the *Kulluk* drillship in the Beaufort Sea and (2) a permit for ConocoPhillips permit to operate a jackup drill rig in the Chukchi Sea. ICAS Petition at 8-9; Supp. RTC at 11-12.

the regulatory minimum comment period for the draft permits. ICAS does not point to any other statutory or regulatory provision that *requires* the Agency to provide a longer comment period when the Agency issues more than one permit in a given month. To the contrary, the relevant regulation authorizes the Agency to issue a single public notice to "describe more than one permit or permit actions," 40 C.F.R. § 124.10 (a)(3), but does not specify, or even mention the possibility of, a different time frame for public comment when concurrent permits are issued. ICAS's attempt to recalculate the length of the comment periods based on an unexplained mathematical formula involving the number and lengths of other comment periods is unconvincing. *See* ICAS Petition at 8. Accordingly, ICAS has failed to demonstrate that the Region "committed clear legal error" in establishing thirty-day comment periods for these two permits. *See Conn. Light & Power Co. v. NRC*, 673 F.2d 525, 534 (D.C. Cir. 1982) (upholding agency's selection of the minimum comment period as reasonable and observing that "[n]either statute nor regulation mandates that the agency do more"); *Conference of State Bank Supervisors v. Office of Thrift Supervision*, 792 F. Supp. 837, 844 (D.D.C. 1992) (denying claim that comment period should have been longer where statute did not require agency to provide more than thirty-day comment period and thirty days was not unreasonable); *see also Russell City II*, 15 E.A.D. at 95-98 (denying review of a procedural error claim where petitioners fail to point to a part 124 procedural regulation that was violated).

Some of ICAS's arguments can also be read as challenging the Region's decision to select thirty days rather than a longer time period for these comment periods under 40 C.F.R. § 124.10(b)(1) or as challenging the Region's decision to deny ICAS's request for a longer comment period. Because both of these decisions were discretionary, challenges to them are, in essence, claims that the Region abused its discretion. *E.g., In re Guam Waterworks Auth.*, 15 E.A.D. 437, 443 n.7 (EAB 2011) (explaining Board's standard in reviewing claims involving a permit issuer's exercise of discretion); *In re Desert Rock Energy Co.*, 14 E.A.D. 484, 530 (EAB 2009) (using an abuse of discretion standard where the permit issuer had "broad discretion" in making the challenged determination). The Board considers this challenge next.

The Region, in its Supplemental Response to Comments document, provided a lengthy, well-reasoned explanation for its establishment of thirty-day comment periods and for its denial of ICAS's request for longer, non-concurrent comment periods. The Region generally stated that, "[i]n light of the prior public comment periods and the fact that comment on the 2011 Revised Draft Permits was limited in scope, [it had] determined that a thirty-day comment period was appropriate." Supp. RTC at 11. The Region further explained that the thirty-day public comment period "was not intended to reopen public comment on the entirety of the 2011 Revised Draft Permits, but to solicit public comment on the issues addressed by the [Board], the issues otherwise raised in the 2010 Permit petitions but not addressed in issuance of these revised permits, the revised as-

pects of the permits, and the new modeling algorithms." *Id.* Finally, the Region pointed out that it had received more than 14,000 comments during the thirty-day comment period, and that "[t]he volume of comments received and the substantive issues raised by commenters on the technically and legally complex components of the permits and modeling algorithms support the Region's determination that the thirty-day period provided adequate time for the public to provide informed and meaningful comment on the 2011 Revised Draft Permits." *Id.*

Furthermore, in responding to comments specifically raising concerns about the overlapping comment periods, the Region explained that it had "extended the comment period on the ConocoPhillips draft permit for an additional two weeks," and that "[t]his * * * addresses to some extent the commenters' concern about overlapping comment periods."[70] *Id.* at 12-13. The Region also explained that, "[t]o facilitate public comment, [it had] made available a redline-strikeout version of the 2011 Revised Draft Permits so commenters could easily identify the specific changes made to the original 2010 Permits. The Supplemental Statement of Basis for the 2011 Revised Draft Permits also includes a section devoted exclusively to explaining the key revisions to the permits." *Id.* at 13 (referring to Supp. Statement of Basis § 1.4 (entitled "Key Changes in 2011 Revised Draft Permits")). The Region pointed out that there were a number of identical issues between the two permits, including reliance on the same model and algorithms. *See id.* The Region additionally noted that it had informed ICAS of the upcoming public comment period for the revised draft permits during informational meetings "held three weeks prior to the start of the comment period." *Id.* at 14. Finally, the Region stated that, while it agreed that "some aspects" of the 2011 draft permits are "technically and legally complex," the number and substance of the comments submitted "demonstrate that the public was able to review, evaluate, and comment on many of the complex issues during the comment period provided." *Id.* at 13.

In responding to the Region's rationale, ICAS argues that these permits raise "an important issue for local communities" and that the similarities between the two permits "do not justify holding overlapping permit periods." ICAS Petition at 9. The Board understands ICAS's desire for a longer comment period for these permits. A permit issuer must nonetheless balance the public's desire for a lengthy comment period against other factors, including, for example, the need for expedited review of NSR permits, the length of time the particular permit or related activity has been under consideration, and its current posture. As the Board has previously noted, "NSR permits are time-sensitive." Standing Order at 1; *see also id.* at 2-6 (providing procedures to "facilitate expeditious resolution of NSR appeals"). The CAA itself also indicates that NSR permits are time-sensitive. *See*

[70] In fact, the Region ultimately extended the comment period for the ConocoPhillips permit to sixty days and the comment period for the Shell *Kulluk* permit to forty-six days. Supp. RTC at 12; ICAS Petition at 8 tbl. 1.

CWA § 165(c), 42 U.S.C. § 7475(c) ("Any completed permit application * * * to which this part applies shall be granted or denied not later than one year after the date of filing of such completed application."). These two permits have been under consideration for some time, and several comment periods have already been provided. In addition, the scope of review during the comment period was of a limited nature: review was confined to the issues the Board had remanded and the revisions to the permit the Region had made in response. *See*, *e.g.*, Supp. Statement of Basis at 12 ("[O]nly the conditions of the 2011 Revised Draft Permits that are proposed for revision in this proceeding and the information and analysis supporting those changes are open for public comment."). Furthermore, the Region was aware, as is the Board, that delays in issuing OCS permits in the Arctic can lead to delays in exploration because of the short drilling seasons. Region 10 Letter at 1; Supp. RTC at 12. It is clear from the administrative record that the Region appropriately balanced the conflicting considerations in deciding on the length of the comment periods and in denying requests for longer periods. ICAS has not demonstrated otherwise[71] and has therefore failed to show that the Region abused its discretion in either selecting thirty-day comment periods or in denying ICAS's request for longer, non-concurrent comment periods. Therefore, the Board denies review of this issue.

VII. *CONCLUSION AND ORDER*

For all of the reasons provided, the Board denies review of the Permits.

So ordered.

[71] The Board is unpersuaded by ICAS's argument that it had difficulty locating an expert to review the air modeling. *See* ICAS Petition at 10. As the Region indicated in its Supplemental Response to Comments, Supp. RTC at 11, other commenters provided substantive, technical comments on the air modeling, which suggests that the comment period was sufficient to allow opportunity for meaningful comment. *See Fla. Power & Light Co. v. United States*, 846 F.2d 765, 772 (D.C. Cir. 1988) (upholding a short comment period as sufficient where the agency had received numerous comments, some lengthy, and the comments had had a "measurable impact" on the final rule); *State Bank Supervisors*, 792 F. Supp. at 844 (holding length of comment period not unreasonable especially in light of the comments that plaintiffs and other parties submitted). Furthermore, as Region points out, Supp. RTC at 14, ICAS knew what issues would be considered on remand, and it had been given approximately three weeks advance notice of the impending comment period.