

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

_____)
In re:)
)
Shell Offshore, Inc.)
Kulluk Drilling Unit and)
Frontier Discoverer Drilling Unit)
)
)
Permit No. R10OCS-AK-07-01)
Permit No. R10OCS-AK-07-02)
)
_____)

Appeal No. _____

PETITION FOR REVIEW

SUBMITTED ON BEHALF OF
THE NORTH SLOPE BOROUGH

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TABLE OF CONTENTS

TABLE OF AUTHORITIES iii

INTRODUCTION..... 1

THRESHOLD PROCEDURAL REQUIREMENTS 2

STATEMENT OF FACTS..... 4

EFFECT OF PETITION ON PERMIT..... 5

STANDARD OF REVIEW 6

ARGUMENT..... 6

 A. REGULATORY BACKGROUND..... 6

 1. *Outer Continental Shelf Regulation Under the Clean Air Act*..... 6

 2. *Prevention of Significant Deterioration*..... 9

 B. EPA ERRED BY ISSUING MULTIPLE MINOR SOURCE PERMITS FOR INDIVIDUAL DRILL SITES. 13

 1. *Under Section 328, EPA Must Permit Shell’s Operations on a Drill Ship by Drill Ship Basis*. 15

 2. *Under Alaska’s PSD Program, EPA Must Issue a Single Major Source Permit for All Drill Sites*..... 18

 (i) The plain meaning of “contiguous or adjacent property” includes lease blocks that are physically connected at a point or along a boundary, and EPA must apply the regulations in accordance with this meaning. 20

 (ii) EPA erroneously concluded that Shell’s activities do not constitute a single major source under the plain meaning of “contiguous or adjacent properties.” ... 22

 3. *Even if the Board Concludes That EPA’s Interpretations of Section 328 and Alaska’s PSD Program are Entitled to Deference, EPA’s Interpretations Must Fail as Contrary to the Statutory Purpose and Inconsistent with Prior Agency Practice*. 28

 C. EPA INCORRECTLY CALCULATED THE OCS SOURCE’S POTENTIAL TO EMIT AND FAILED TO IMPOSE PRACTICALLY ENFORCEABLE PERMIT LIMITS TO ENSURE THE OCS SOURCE WILL NOT EXCEED “MAJOR SOURCE” EMISSION THRESHOLDS..... 32

 1. *EPA Failed to Provide Relevant Information in the Administrative Record for the Draft Permit*. 33

2.	<i>EPA Improperly Based Potential to Emit on Expected or Average Emissions.</i>	36
3.	<i>EPA Clearly Erred in Issuing Shell’s Owner Requested Limit Because Shell Failed to Satisfy the Regulatory Requirements and the Limit is not Federally and Practically Enforceable.</i>	40
(i)	Shell’s application fails to satisfy the requirements to establish an Owner Requested Limit.	40
(ii)	Shell’s Owner Requested Limit is not enforceable	41
(iii)	The Permits fail to require sufficient testing, monitoring and reporting to ensure the source remains below major source thresholds.	46
D.	THE MODELING EPA ACCEPTED FROM SHELL WAS FLAWED AND DOES NOT DEMONSTRATE PROTECTION OF FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS	51
E.	THE BOARD SHOULD REVIEW EPA’S EXERCISE OF DISCRETION IN SCHEDULING PUBLIC HEARINGS IN THE NSB DURING AN ESSENTIAL SUBSISTENCE HARVEST PERIOD BECAUSE IT DENIED AFFECTED COMMUNITIES AN OPPORTUNITY FOR MEANINGFUL PARTICIPATION.	57
E.	THE BOARD SHOULD REVIEW EPA’S FAILURE TO APPROPRIATELY ADDRESS NSB’S ENVIRONMENTAL JUSTICE CONCERNS.	62
	CONCLUSION	69
	LIST OF EXHIBITS	71

TABLE OF AUTHORITIES

Cases

Auer v. Robbins, 519 U.S. 452 (1997)	26
Christensen v. Harris County, 529 U.S. 576 (2000).	26
Exportal Ltda. v. United States, 902 F.2d 45 (D.C.Cir.1990)	22
General Motors Corp. v. United States, 496 U.S. 530 (1990).	7
In re AES Puerto Rico, L.P., 8 E.A.D. 324 (EAB 1999).	65, 67
In re Amerada Hess Corp. Port Reading Refinery, PSD Appeal No. 04-03 (EAB, Feb. 1, 2005).	6
In re Cardinal FG Co., PSD App. No. 04-04 (EAB, March 22, 2005).	7
In re Commonwealth Chesapeake Corp., 6 E.A.D. 764 (EAB 1997).	9
In re EcoEléctrica, L.P., 7 E.A.D. 56 (EAB 1997)	9
In re Hawaii Electric Light Company, Inc., 8 E.A.D. 66 (EAB 1998)	55
In re Knauf Fiber Glass, 8 E.A.D. 121 (EAB 1999)	66, 67
In re Knauf Fiber Glass, 9 E.A.D. 1 (EAB 2000).	66, 67
In the Matter of Peabody Western Coal, CAA Appeal No. 04-01, (EAB, Feb. 18, 2005)	27, 50
In re Prairie Sate Generation Station, PSD Appeal No. 05-02 (EAB, March 25, 2005)	6
In re Sealed Case, 237 F.3d 657 (D.C. Cir. 2001)	27
In the Matter of: Sharon Steel Corporation, Docket No. RCRA-III-062-CA (EAB, Feb. 9, 1994)	21
National Min. Ass'n v. U.S. EPA, 59 F.3d 1351 (D.C. Cir. 1995).	12
Roberto v. Dep't of the Navy, 440 F.3d 1341 (Fed.Cir. 2006)	22

Safe Air for Everyone v. U.S. E.P.A., --- F.3d ----, 2007 WL 1531819 (9th Cir. May 29, 2007)	21, 26
Sierra Club v. Johnson, 436 F.3d 1269 (11th Cir. 2006)	34
United States v. Louisiana-Pacific Corp., 682 F. Supp. 1122 (D. Colo. 1987)	43
United States v. Louisiana-Pacific Corp., 682 F. Supp. 1141 (D. Colo. 1988).....	38
Wards Cove Packing Corp. v. Nat'l Marine Fisheries Serv., 307 F.3d 1214 (9th Cir. 2002).	19, 22
Weiler v. Chatham Forest Products, Inc., 392 F.3d 532 (2d Cir. 2004)	43

Federal Statutes

42 U.S.C. § 7401	6
42 U.S.C. § 7407	9
42 U.S.C. § 7410	10
42 U.S.C. § 7470 et seq.....	9
42 U.S.C. § 7471	10
42 U.S.C. § 7475	13
42 U.S.C. § 7627	passim
43 U.S.C. § 1331	8, 9, 21
43 U.S.C. § 1337	21

Federal Regulations

40 C.F.R. § 51.166	passim
40 C.F.R., Part 51, App. W	55, 56, 57
40 C.F.R. § 55.2	passim
40 C.F.R. § 55.3	8, 9

40 C.F.R. § 55.6.....	1, 8, 9, 34
40 C.F.R. § 52.21	10
40 C.F.R. § 55.11	8
40 C.F.R. § 55.12.....	9
4, 40 C.F.R. § 55.13	9
40 C.F.R. § 55.14.....	9
40 C.F.R. § 81.302.....	10
40 C.F.R. § 124.9.....	34
40 C.F.R. § 124.10.....	34, 37, 58
40 C.F.R. § 124.12.....	58
40 C.F.R. § 124.13.....	4
40 C.F.R. § 124.15.....	6
40 C.F.R. § 124.18.....	34
40 C.F.R. § 124.19.....	1, 4, 6

Alaska Statutes

Ak. Stat. § 46.14.120	10
Ak. Stat. § 46.14.130.....	passim
Ak. Stat. § 46.14.990	11

Alaska Regulations

18 AAC 50.010.....	7
18 AAC 50.040.....	passim
18 AAC 50.225	41

18 AAC 50.302	10
18 AAC 50.306	10, 13
18 AAC 50.502	53
18 AAC 50.508	14
18 AAC 50.540	41, 53, 54
18 AAC 50.542	45
18 AAC 50.990	53

Other Authorities

LEGISLATIVE HISTORY

S. Rep. 101-228, 101st Cong., 1st Sess. 28, at 3263 (1990).....	7, 15, 29
-----------------------------------------------------------------	-----------

FEDERAL REGISTER

59 Fed. Reg. 7,629 (Feb.16, 1994).	64
65 Fed. Reg. 67,249 (Nov. 9, 2000).....	63
71 Fed. Reg. 48,879 (Aug. 22, 2006).....	9
72 Fed. Reg. 13,648, 13,651 (March 22, 2007)	63

FINAL ORDERS OF THE EPA ADMINISTRATOR

In the Matter of Cargill, Inc. Petition IV-2003-7 (Amended Order) (Oct. 19, 2004).....	50
In the Matter of Oglethorpe Power Co., Amended Order Denying Petition for Objection to Permit at 7 (Nov. 14, 2005)	30

EPA GUIDANCE

April 20, 1999, letter from EPA Region 8 to Colorado Air Pollution Control Division, Re: PSD construction permits for American Soda.	27
August 21, 2001, letter from EPA Region 10 to Alaska Department of Environmental Quality, Re: Permitting of Forest Oil's Kustatan Production Facility and Osprey Platform Pursuant to the Alaska SIP.	27

August 25, 1999, letter from EPA Region 5 to Wisconsin Department of Natural Resources, Re: Oscar Mayer Foods.	27
August 8, 1996, letter from EPA, Region 5, to Ohio Division of Air Pollution Control, Re: Honda of America Manufacturing, Inc.	27
Clarification of New Source Review Policy on Averaging Times for Production Limitations, April 8, 1987.....	44
EPA Interim Policy on Federal Enforceability of Limitations on Potential to Emit	42
May 21, 1998, letter from EPA Region 8 to Utah Division of Air Quality, Re: Response to Request for Guidance in Defining Adjacent with Respect to Source Aggregation.	27
Memorandum from Terrel F. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring, and John S. Seitz, Director, Stationary Source Compliance Division, OAQPS (June 13, 1989).....	42
November 3, 1986, letter from EPA to Texas Air Control Board, Re: PSD Applicability Request, Valero Transmission Company Yoakum, DeWitt County, Texas	26
U.S. EPA AP-42 Compilation of Air Pollutant Emission Factors.....	49
U.S. EPA, Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses (1998)	69, 70
U.S. EPA, New Source Review Workshop Manual, Draft, October 1990.....	26, 44, 47
DICTIONARIES	
Black's Law Dictionary, adjacent (8th ed. 2004).....	21
Black's Law Dictionary, contiguous (8th ed. 2004).....	21
Random House Unabridged Dictionary, associate (2006).....	18

INTRODUCTION

Pursuant to 40 C.F.R. § 55.6(a)(3) and 40 C.F.R. § 124.19(a), the North Slope Borough (“NSB”) petitions for review of the issuance of Alaska Outer Continental Shelf Air Quality Control Minor Permit Approval to Construct Numbers R10OCS-AK-07-01 and R10OCS-AK-07-02 (“Permits”), which were issued to Shell Offshore, Inc. (“Shell”) on June 12, 2007, by the United States Environmental Protection Agency, Region 10. (“EPA”).¹

For the reasons set forth in this Petition, EPA improperly relied on erroneous findings of fact and conclusions of law in issuing the Permits. EPA’s decision was an inappropriate exercise of discretion involving important policy considerations warranting review by the Environmental Appeals Board (“Board” or “EAB”). Moreover, EPA’s responses to the NSB’s comments were insufficient and erroneous, failed to satisfy the standards established by federal regulations, and warrant review by the Board.

EPA issued the Permits pursuant to its authority under the Clean Air Act Section 328, 42 U.S.C. § 7627, and Code of Federal Regulations Title 40, Part 55, governing air pollution from Outer Continental Shelf (“OCS”) activities. The Permits authorize Shell to mobilize, operate, and demobilize two drill ships and their associated support vessels at any drill sites authorized by U.S. Minerals Management Service in the Beaufort Sea. EPA illegally allowed Shell to segregate the emissions from the two separate drill ships, and the individual drill sites for each vessel, in defining the source. As explained below, the applicable regulations require that the emissions from all drill sites located on

¹ The administrative procedures in 40 C.F.R., Part 124 for Prevention of Significant Deterioration Permits are applicable to permits issued pursuant to EPA’s authority under 40 C.F.R., Part 55. 40 C.F.R. § 55.6(a)(3).

contiguous or adjacent property under common control be considered in the aggregate to determine the extent of the source for Prevention of Significant Deterioration program (“PSD”) permitting purposes. Because these aggregate emissions exceed the major source threshold for Nitrogen Oxides (“NOx”), Shell must apply for, and EPA must issue, a PSD permit before Shell can legally mobilize the equipment authorized in the Permits.

Even if EPA’s decision to permit Shell’s equipment as separate minor sources was not contrary to law and fact, the Permits do not contain federally enforceable permit limits necessary to ensure that the sources, on a drill site by drill site basis, will remain below major source thresholds. The permit limits are based on erroneous, unsupported or inappropriate data and factors, and the Permits do not contain sufficient testing, monitoring and reporting requirements to ensure continuous compliance with the permit limits. In addition, based on available information and the nature of the drilling activities, Shell will very likely be unable to avoid violating the Permits. For important policy reasons, including the health and welfare of the NSB and its residents, EPA should not issue permits that the permittee is likely to violate.

EPA exacerbated the problems identified by failing to comply with the public participation obligations required by law, and by accepting flawed ambient air quality modeling that fails to demonstrate protection of Federal and State Ambient Air Quality Standards. These *ultra vires* actions warrant review of the Permits by the EAB.

THRESHOLD PROCEDURAL REQUIREMENTS

The North Slope Borough is the area-wide local government for the northern portion of the State of Alaska. The NSB lies entirely within the Arctic Circle and

consists of more than 89,000 square miles, making it the largest municipality in the United States. The Chukchi and Beaufort Seas, including locations proposed for use by Shell as authorized in the challenged Permits, form the NSB's northern boundary. The NSB's authority is analogous to or greater than that of county governments in other states. The NSB is responsible for, *inter alia*, planning, zoning, environmental protection, and coastal management. There are eight North Slope villages (Anaktuvuk Pass, Atkasuk, Barrow, Nuiqsut, Kaktovik, Point Hope, Point Lay and Wainwright) within the NSB, and residents from all eight of these villages rely upon subsistence resources potentially affected by the activities authorized by the Permits for nutrition, economic, cultural, social and spiritual fulfillment.

The continued protection and maintenance of air quality in the NSB and offshore areas used for subsistence resources is of vital significance to the health and welfare of NSB residents and their ability to maintain subsistence activities including hunting, fishing and whaling in the Beaufort Sea. Many NSB residents are subsistence hunters and fishers. The Permits authorize the use of significant sources of air pollution to drill exploration wells in environmentally and culturally sensitive areas. NSB subsistence hunters actively use these areas for collecting food. Endangered and threatened wildlife also use these areas. EPA's failure to issue the Permits in accordance with the Clean Air Act and its implementing regulations will subject the NSB and the people who live within the NSB to higher levels of pollution than legally allowed.

This petition is timely filed. EPA signed the Permits and served them by mail on June 12, 2007. The Permits were to become effective on July 16, 2007. The NSB actively participated in the permitting process for Shell's exploration drill ships by

speaking at public hearings and submitting written comments on the draft Permits. Thus, NSB has standing to file this petition. 40 C.F.R. § 124.19(a). NSB raised the issues in this petition during the administrative process. 40 C.F.R. § 124.13; 40 C.F.R. § 124.19. NSB looks forward to fully briefing the EAB upon its acceptance of this petition.

STATEMENT OF FACTS

On December 29, 2006, Shell submitted two applications to EPA for preconstruction air permits to conduct exploratory drilling activity on its oil and gas lease blocks in the Beaufort Sea. Kulluk Permit Application [K. App.] (attached as P. Ex. 1); Frontier Discoverer Permit Application [F.D. App.] (attached as P. Ex. 2). Shell submitted supplementary information on February 7, 2007, March 26, 2007, and March 29, 2007. Kulluk and Frontier Discoverer Compliance Plan (Feb. 7, 2007) (attached as P. Ex. 1a); Kulluk Compliance Equation (Feb. 7, 2007) (attached as P. Ex. 1b); Frontier Discoverer Compliance Equation (Feb. 7, 2007) (attached as P. Ex. 2a); Kulluk and Frontier Discoverer Application Addendum (March 26, 2007) (attached as P. Ex. 1c); Shell Email Request (March 29, 2007) (attached as P. Ex. 1d).

“[Shell] intends to conduct drilling operations in 2007 at its OCS lease block locations in Camden Bay, located in the central Beaufort Sea.” P. Ex. 1, K. App. at 1; P. Ex. 2, F.D. App. at 1. Neither Shell nor EPA has disclosed the exact locations of drilling operations to the NSB. However, all of the proposed lease blocks are within 25 miles of Alaska’s seaward boundary. P. Ex. 1, K. App. at 1; P. Ex. 2, F.D. App. at 1.

EPA issued a statement of basis and draft minor source preconstruction permit for the exploratory drilling program on March 30, 2007. Statement of Basis for the Kulluk Drilling Unit (attached as P. Ex. 3); Statement of Basis for the Frontier Discoverer

Drilling Unit (attached as P. Ex. 4); Draft Permit for the Kulluk Drilling Unit (attached as P. Ex. 5); Draft Permit for the Frontier Discoverer Drilling Unit (attached as P. Ex. 6). EPA provided a public comment period from April 5, 2007, until May 12, 2007. In addition, EPA scheduled a public hearing in the village of Nuiqsut for May 8, 2007. Public Notice of Air Quality Permits (attached as P. Ex. 7). As will be discussed below in Argument Section D, NSB communicated with EPA as early as March 27, 2007, that the subsistence harvest and cultural activities in May would prevent meaningful public participation in the month of May, and the week of May 7th in particular. April 18, 2007, letter from Johnny Aiken, NSB Planning Department to Richard Albright, EPA Region 10 (attached as P. Ex. 8). Despite NSB's protest, EPA held the public hearing in Nuiqsut on May 8, 2007, and scheduled no further public hearings in other affected villages. On May 11, 2007, NSB submitted extensive and detailed comments on the draft permit. North Slope Borough Detailed Air Quality Comments (attached as P. Ex. 9). The Alaska Department of Environmental Conservation, the U.S. Minerals Management Service, Shell and several non-profit organizations submitted comments on the draft Permits.

On June 12, 2007, EPA issued Shell two final Air Quality Permits. Kulluk Final Permit (attached as P. Ex. 10); Frontier Discoverer Permit (attached as P. Ex. 11). EPA also provided NSB with the final permits and responses to NSB comments, as well as to ADEC, MMS, Shell and the non-profit organizations' comments. US EPA Region 10 Response to Public Comments (attached as P. Ex. 12).

EFFECT OF PETITION ON PERMIT

Permits issued by EPA pursuant to its authority under Section 328, 42 U.S.C. § 7627, and 40 C.F.R. Part 55, are subject to the administrative procedures applicable to

Prevention of Significant Deterioration permits under 40 C.F.R. Part 124. The effective date of the Permits is suspended until the Regional Administrator issues, and forwards to the Federal Register for publication, a final permit decision following disposition of this Petition by the Board. 40 C.F.R. §§ 124.15(b), 124.19(f). See also June 12, 2007, Letter from EPA to NSB transmitting Shell Final Permits and EPA Response to Comments at 2 (attached as P. Ex. 13) (“In accordance with 40 C.F.R § 124.15, these permits will become effective July 16, 2007, unless the permits are appealed”).

STANDARD OF REVIEW

The Board will review an OCS Permit where the actions of a permitting authority were based on: (1) a finding of fact or conclusion of law that is clearly erroneous; or (2) an exercise of discretion or important policy consideration that the Board should, in its discretion, review. 40 C.F.R. § 129.19(a)(1)-(2). In addition, the Board will remand a permit where a permitting agency fails to respond to significant comments or fails to issue a complete response to comments at the time the permit was issued. See In re Prairie Sate Generation Station, PSD Appeal No. 05-02 (EAB, March 25, 2005); In re Amerada Hess Corp. Port Reading Refinery, PSD Appeal No. 04-03 (EAB, Feb. 1, 2005).

ARGUMENT

A. Regulatory Background

1. Outer Continental Shelf Regulation Under the Clean Air Act

The Clean Air Act aims “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1). The Clean Air Act reflects Congress’ recognition of the “urgency of establishing air pollution controls.” General Motors Corp.

v. United States, 496 U.S. 530, 533 (1990). The Clean Air Act sets out a complex scheme of regulations and programs to prevent and abate air pollution.

In 1990, Congress amended the Clean Air Act to include a specific section regulating sources of pollution located on or in waters above the Outer Continental Shelf. Nov. 15, 1990, Pub. L. 101-549, Title VIII, § 801, 104 Stat. 2685. In amending the Clean Air Act to extend EPA’s authority over those sources, Congress acknowledged the significant impact offshore sources can have on air quality, and was motivated by the significant uncontrolled pollution generated by offshore oil and gas exploration and production. S. Rep. 101-228, 101st Cong., 1st Sess. 28, at 3268 (1990) (Section 328) (noting “A major uncontrolled offshore oil project can emit pollution in a year which exceeds pollutants emitted by one hundred thousand automobiles (meeting 1988 California emission standards), each traveling 10,000 miles”).

Section 328 instructs EPA to promulgate regulations to control air pollution from OCS sources to attain and maintain the National Ambient Air Quality Standards (“NAAQS”) and applicable State air quality standards² and to comply with the Prevention of Significant Deterioration program. 42 U.S.C. § 7627(a)(1). Section 328 defines an OCS source as:

any equipment, activity, or facility which -
(i) emits or has the potential to emit any air
pollutant

² EPA has established NAAQS for lead, carbon monoxide, nitrogen oxides, sulfur dioxide, particulate matter smaller than 10 microns in diameter, particulate matter smaller than 2.5 microns in diameter, and ozone. In re Cardinal FG Co., PSD App. No. 04-04, slip op. at 5 (EAB, March 22, 2005). The State of Alaska has established ambient air quality standards for particulate matter smaller than 10 microns in diameter, sulfur oxides, carbon monoxide, ozone, nitrogen dioxide, lead, reduced sulfur compounds, and ammonia. 18 AAC 50.010.

(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.

42 U.S.C. § 7627(a)(4)(C). OCS sources within 25 miles of a state’s seaward boundary must comply with the same requirements that apply to sources located in the “corresponding onshore area,” (“COA”) which is defined as the onshore area “closest” to the source, with some exceptions that are not relevant here. 42 U.S.C. § 7627(a)(1) and (a)(4)(B).³

EPA promulgated regulations to implement Section 328 in 40 C.F.R., Part 55. An OCS Source is subject to federal regulations and the state or local requirements of the COA. 40 C.F.R. § 55.3(b). These include the substantive federal regulations in Part 55, requiring preconstruction and operating permits for OCS Sources, other federal requirements incorporated by reference at 40 C.F.R. § 55.13, and the requirements of the COA in 40 C.F.R. § 55.14.

³ The EPA may delegate its authority to administer Section 328 to states that promulgate regulations approved by EPA. 42 U.S.C. § 7627(a)(3); 40 C.F.R. § 55.11. EPA has not delegated this authority to Alaska, thus EPA issued the Permits at issue in this petition. In addition, because EPA has not delegated its authority to Alaska, EPA’s administrative and procedural requirements apply. 40 C.F.R. § 55.14 (c)(4). The procedural requirements applicable to OCS permitting are the regulations applicable to PSD permits in 40 C.F.R., Part 124. 40 C.F.R. § 55.6.

Since applicable requirements in any air quality area are subject to change, the EPA performs a consistency check before a permit application is submitted to determine whether the applicable regulations have changed. 40 C.F.R. §§ 55.6(b); 55.12.⁴ EPA published a consistency check for the Shell applications at 71 Fed. Reg. 48,879 (Aug. 22, 2006). The federal requirements in Part 55, and the State provisions in Part 55, Appendix A (Alaska), as updated by the EPA consistency check, are the requirements applicable to OCS Sources within 25 miles of Alaska’s seaward boundary.⁵ These include compliance with the PSD program applicable in the COA.

2. Prevention of Significant Deterioration

The Clean Air Act’s Prevention of Significant Deterioration (“PSD”) program, 42 U.S.C. §7470 *et seq.*, was designed to ensure that the air quality in areas that have already attained the NAAQS will not degrade. 42 U.S.C. § 7470(1). PSD applies to the construction of new major sources in areas designated as attainment or unclassifiable. In re EcoEléctrica, L.P., 7 E.A.D. 56, 59 (EAB 1997); In re Commonwealth Chesapeake Corp., 6 E.A.D. 764, 766-67 (EAB 1997). A designation of “attainment” for a particular pollutant reflects EPA’s judgment that air quality meets or is cleaner than the NAAQS. 42 U.S.C. § 7407(d)(1)(A)(i). A designation of “unclassifiable” indicates that sufficient information is not available to classify air quality in the area as meeting or exceeding the NAAQS. 42 U.S.C. § 7407(d)(1)(A)(iii).

The Northern Alaska Intrastate Air Quality Control Region, the COA for Shell’s exploration activities, has been designated as “attainment or unclassifiable” for the

⁵ Any provisions of the Alaska Rules discussed in this Petition are included by reference in 40 C.F.R. § 55.14 and Appendix A (Alaska) or the EPA consistency check, and are therefore applicable federal requirements for OCS Sources.

Nitrogen Oxides (NO_x) NAAQS. 40 C.F.R. § 81.302. The Clean Air Act requires Alaska to adopt and submit for the EPA's approval a state implementation plan ("SIP") that provides for attainment and maintenance of the NAAQS. 42 U.S.C. § 7410. The SIP must include emission limitations and such other provisions as may be necessary "to prevent significant deterioration of air quality" in "attainment" areas, including a PSD permit program. 42 U.S.C. §§ 7471; 7410(a)(2)(C).

Alaska's SIP, first approved by the EPA in 1983, includes a PSD permit program. Alaska's PSD program requires a preconstruction permit for a new major source or a major modification. Ak. Stat. §§ 46.14.120, 46.14.130. For the most part, with some exceptions and additions, Alaska has adopted the federal PSD regulations at 40 C.F.R. § 52.21 to implement this provision. 18 AAC 50.306 (adopting with some exceptions and additions, 40 C.F.R. § 52.21, as adopted by reference in 18 AAC 50.040(h)).

Pursuant to Alaska's PSD program, an owner or operator must receive a PSD permit before constructing or modifying a major stationary source. 18 AAC 50.302(a)(1), 50.306(a). Alaska defines "major stationary source" as a stationary source that satisfies the definition of "major stationary source" in 40 C.F.R. §§ 51.166(b). Ak. Stat. § 46.14.990(17). In relevant part, 40 C.F.R. § 51.166(b) defines "major stationary source" as "any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant." 40 C.F.R. § 51.166(b)(1)(i)(b).

Alaska also defines "stationary source" by reference to 40 C.F.R. § 51.166(b), which defines "stationary source" as "any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." 40 C.F.R. § 51.166(b)(5)(as incorporated by Ak. Stat. § 46.14.990(27)). Alaska defines "building, structure, facility or

installation” with reference to 40 C.F.R. § 51.166(b), except that it includes a vessel:

(A) that is anchored or otherwise permanently or temporarily stationed within a locale;

(B) upon which a stationary source or stationary sources are located; not including stationary sources engaged in propulsion of the vessel; and

(C) that is used for an industrial process, excluding a tank vessel in the trade of transporting cargo; in this subparagraph, “industrial process” means the extraction of raw material or the physical or chemical transformation of raw material in either composition or character.

18 AAC 50.040(h)(4)(B)(iii). 40 C.F.R. § 51.166(b), in turn, defines “building, structure, facility, or installation” as

all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” (i.e., which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).

Therefore, for purposes of PSD applicability, a “major source” in Alaska is: (1) all of the pollutant-emitting activities on an OCS Source, including vessels servicing or associated with them within 25 miles; (2) located on contiguous or adjacent property; (3) under the control of the same person; and (4) listed under the same “Major Group” Standard Industrial Classification (“SIC”) code, that have the “potential to emit” more than 250 tons of a regulated pollutant.⁶

⁶ “Standard Industrial Classification Code refers to the nomenclature used to categorize industries. Facilities may be categorized into major groups (2-digit SIC Code), industry groups (3-digit SIC Code), or industry codes (4-digit SIC Code), depending on the level of detail appropriate. Standard Industrial Classification Manual (Exec. Office of the

“Potential to emit” is defined as:

the 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. Secondary emissions do not count in determining the potential to emit of a stationary source.

18 AAC 50.040(h)(4)(B)(i) (incorporating 40 C.F.R. § 51.166(b)(4)). For an OCS Source, however, section 328 of the Clean Air Act and federal regulation alters this definition to include emissions from what would otherwise be considered indirect or secondary emissions. For OCS Sources, potential to emit means:

the maximum emissions of a pollutant from an OCS source operating at its design capacity. Any physical or operational limitation on the capacity of a 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 a limit on the design capacity of the source if the limitation is federally enforceable. Pursuant to section 328 of the Act, emissions from vessels servicing or associated with an OCS source shall be considered direct emissions from such a source while at the source, and while enroute to or from the source when within 25 miles of the source, and shall be included in the “potential to emit” for an OCS source. This definition does not alter or affect the use of this term for any other purposes under §§55.13 or 55.14 of this part, except that vessel emissions must be included in the “potential to emit” as used in §§55.13 and 55.14 of this part.

40 C.F.R. § 55.2 (emphasis added).

Under the Clean Air Act and the Alaska SIP, no “major source” may be constructed or modified without a preconstruction permit that satisfies the requirements

President, Office of Management and Budget) 12 (1987).” National Min. Ass’n v. U.S. EPA, 59 F.3d 1351, 1355 n.6 (D.C. Cir. 1995).

of the Alaska PSD program. 42 U.S.C. § 7475; 18 AAC 50.306. These include compliance with all applicable Best Available Control Technology (“BACT”) requirements, a demonstration that the source will not cause or contribute to a violation of a NAAQS or increment, issuance of a major source PSD permit that has been issued following the proper public participation requirements, and other obligations. 42 U.S.C. § 7475; 18 AAC 50.306.

B. EPA Erred by Issuing Multiple Minor Source Permits for Individual Drill Sites.

Shell requested two minor source permits for its 2007-2009 exploration activities, one for the Kulluk and its support fleet, and one for the Frontier Discoverer and its support fleet.⁷ Shell did not request a permit for each drill ship’s annual operations, however. Instead, Shell requested that its exploration activities be permitted on a site-by-site basis, with each ship operating at multiple sites each year. Shell stated that “each drill site is a separate stationary source,” and styled its air permit applications as “single application[s] for multiple portable stationary sources.” K. App. at 1; F.D. App. at 1. Shell did not specify the lease blocks upon which pollution emitting activities will occur, and the Permit authorizes operation on any of Shell’s lease blocks in the Beaufort Sea that are ultimately approved by the Minerals Management Service. P. Ex. 10, K. Final Permit at 1; P. Ex. 11, F.D. Final Permit at 1.

EPA approved each of these facets of Shell’s application. The resultant Permits authorize multiple “minor sources” - one at each drill site. EPA’s decision is plainly erroneous because the applicable regulations require EPA to permit all of Shell’s

⁷ Shell indicated that it plans drilling activity with each drill ship for approximately 120 days per year at up to three drill sites from 2007-2009, but that drilling activity could continue in 2010 and 2011. P. Ex. 1, K. App. at 1; P. Ex. 2, F.D. App. at 1.

pollution emitting activities at unspecified contiguous or adjacent lease blocks in the Beaufort Sea as a single major source. In issuing the permits, EPA limited the definition of OCS source to a 500-meter radius around each drill site. P. Ex. 3 & 4, Permits' Statement of Basis at 10. This decision was arbitrary and contrary to the plain meaning of the statutory definition of "OCS Source" and Alaska's PSD definition of "major stationary source," and in conflict with the statutory purpose and prior agency practice.

First, "OCS Source" is defined as "equipment, activity, or facility." 42 U.S.C. § 7627; 40 C.F.R. § 55.2. "Activity" explicitly includes "drill ship exploration." 42 U.S.C. § 7627. Shell proposes to use the same equipment at multiple locations. P. Ex. 1, K. App. at 1; P. Ex. 2, F.D. App. at 1. In addition, Section 328 requires that EPA consider emissions from vessels associated with an "OCS Source" as direct emissions from the source when within 25 miles of the source. 42 U.S.C. § 7627. Therefore, EPA must permit Shell's operations on a drill ship by drill ship basis, including other vessels servicing or associated with the drill ship within 25 miles, under Section 328 and its implementing regulations.

Second, Under Alaska's PSD program, all of Shell's pollution emitting activities with the same two-digit SIC code and on contiguous or adjacent property constitute a single source for purposes of determining potential to emit. 18 AAC 50.040(h)(4)(B)(iii) (incorporating by reference 40 C.F.R. § 51.166(b)). The applicable regulation instructs EPA to aggregate emissions from all sources that satisfy three criteria: (1) common control; (2) same two-digit SIC code; and (3) on contiguous or adjacent property. Id. The Kulluk and Frontier Discoverer, as permitted, satisfy these three criteria. EPA must

therefore aggregate emissions from both drill ships on each drill site, or revise the permit to limit Shell's drill sites to lease blocks that are not contiguous or adjacent.

Third, EPA's interpretations of the statutory and regulatory provisions above are plainly erroneous. EPA's interpretations conflict with the statutory purpose and are inconsistent with prior agency practice. Section 328 aims to reduce air pollution from offshore oil and gas operations by ensuring that OCS equipment, activities and facilities install modern pollution controls. See S. Rep. 101-228, 101st Cong., 1st Sess. 28, at 3263 (1990).⁸ EPA's adoption of a 500-meter source definition thwarts this purpose. Moreover, EPA's own prior permitting decision, with respect to the same drilling ship,⁹ undermines its position in this case.

1. Under Section 328, EPA Must Permit Shell's Operations on a Drill Ship by Drill Ship Basis.

EPA erroneously limited the geographical scope of the Kulluk and Frontier Discoverer "OCS source" to 500 meters surrounding the hull of the drill ship at each drill site. The statute defines "OCS source" as "any equipment, activity or facility" that satisfies three elements: (1) emits or has the potential to emit air pollution; (2) is regulated or authorized under the Outer Continental Shelf Lands Act ("OCSLA"); and (3) is located on or in waters above the OCS. 42 U.S.C. § 7627. The statute also specifically

⁸ Congress explained the purpose of Section 328 as preserving an area's ability to produce oil and gas by ensuring that OCS Sources comply with emission controls for new sources, stating, "[n]ational energy production goals, both offshore and onshore, can only be achieved through the permitting and regulation of many low-polluting facilities. While keeping within allowable air quality levels, over ten times as much low-polluting oil production can be permitted, as compared to highly polluting oil production. Application of the same requirements to all offshore and onshore projects will preclude a few 'dirty' projects from using up an air basin's remaining capacity to absorb pollutants and thereby impede future energy development."

⁹ See ARCO Alaska, Inc., OCS Air Quality Permit Application and Review Documents for Exploration in the Beaufort Sea, Alaska OCS. (Feb. 1993).

enumerates “drill ship exploration” as a type of activity regulated by Section 328.

Shell concluded, and EPA agreed, that this definition compels EPA to regulate drill ship operations at each drill site as separate sources, though the same drill ship will be operating at several drill sites in any given year. See P. Ex. 1, K. App at 1 (“Pursuant to the 40 C.F.R. 55.2 OCS source definition, each drill site is a stationary source, so the Shell Kulluk drilling activities could consist of a maximum of three sequential stationary sources per year.”); P. Ex. 2, F.D. App. at 1 (same); P. Ex. 3 & 4, Permits’ Statement of Basis at 9 (“it is the above activity at an OCS drill site that EPA is permitting, and not the [drill ship] wherever it goes.”)

EPA’s position seems to be that vessels are not regulated under Section 328 unless they are permanently or temporarily attached to the sea bed, and that because the Kulluk and Frontier Discoverer will be repeatedly attached and unattached from the sea bed, the drill ship becomes a separate “OCS source” each time it attaches to the sea bed. See P. Ex. 12, EPA Response to Comments at 51. That is, EPA does not consider emissions from the Kulluk at one location as direct emissions from the Kulluk at another location. EPA explained its position as follows:

Although it is clear that Section 328 of the Act and 40 C.F.R. Part 55 require that support vessel emissions within 25 miles of a drillships be aggregated with the drillships emissions, neither the statute nor the implementing regulation specifically discuss how or whether to aggregate emissions occurring across multiple drill sites... EPA determined that the OCS source is the drillships and that for purposes of determining PTE, the emissions from drill site to drill site along with associated emissions are calculated separately.

P. Ex. 12, EPA Response to Comments at 53.

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

Here, Shell proposes to use the same equipment to undertake the same activities at multiple sites on its lease blocks in the Beaufort Sea. The Kulluk will be towed into place and anchored to the seabed, engage in exploratory drilling, and then be towed to another location to start the process again. P. Ex. 1, K. App. at 3. The Frontier Discoverer will sail into place, anchor to the seabed, engage in exploratory drilling, and then sail to another location to start the process again. P. Ex. 2, F.D. App at 3. During the approximately 120 day exploration season, each drill ship will be able to complete this cycle a number of times, depending on ice and other conditions. P. Ex. 1, K. App. at 1; P. Ex. 2, F.D. App. at 1. However, the fact that Shell takes the same equipment to various locations and attaches and reattaches it repeatedly to the seabed is irrelevant to the definition of OCS Source under Section. The same "equipment" is in use at each site. Nothing in Section 328 limits the definition of OCS Source to a single drill site. The statute explicitly regulates drill ships, not drill sites. EPA's interpretation is thus contrary to the statute and clearly erroneous.

Even if the statute were not clear on this point, the statute also provides that emissions from vessels servicing or associated with an OCS are direct emissions from the OCS Source when operating within 25 miles. 43 U.S.C. § 7627; 40 C.F.R. § 55.2. To

“associate” means to unite or combine. Random House Unabridged Dictionary (2006). Here, EPA did not consider the emissions of a drill ship across multiple locations within 25 miles of each other as direct emissions from the source. Each drill ship is clearly “associated with” itself. Each drill ship is one unified piece of equipment. Moreover, each drill ship’s activities across drill sites are united for the same purpose, drill ship exploration during the 2007 open water season, as organized by the same company. Therefore, the emissions from drill ships operating at drill sites within 25 miles of another drill site must be treated as a single OCS Source. The minor Permits allow Shell to locate drill sites within 25 miles of each other. Absent a limitation on distance, Shell must receive a single OCS Source preconstruction permit for all of the anticipated activities of each drill ship, instead of the permits for “multiple OCS Sources” as issued here.

Because each drill ship, across all drill sites, is a single source under Section 328, Shell’s potential to emit exceeds PSD major source thresholds. Even assuming that the Owner Requested Limits in the Permits are enforceable, which they are not, the emissions from each drill ship equal at least 735 tons per year of NO_x. P. Ex. 12, EPA Response to Comments at 36. Thus, Shell must receive a PSD Permit for each drill ship, and the minor Permits must be remanded.

2. Under Alaska’s PSD Program, EPA Must Issue a Single Major Source Permit for All Drill Sites.

Shell and EPA concluded that emissions from each drill ship should not be aggregated in determining PSD applicability. This decision is plainly in error because Shell’s two drill ships clearly are under common control, have the same two-digit SIC code, and are authorized to locate on contiguous and adjacent properties.

Under the Alaska PSD program, a major stationary source must receive a PSD permit before construction. Ak. Stat. 46.14.130. Alaska’s regulations define a major stationary source with reference to a “building, structure, facility or installation.” 18 AAC 50.040(h)(4)(B)(iii) (incorporating by reference 40 C.F.R. § 51.166(b)). “Building, structure, facility or installation” includes all pollutant emitting activities that satisfy three criteria: (1) a common owner or operator; (2) the same two-digit SIC code; and (3) are located on contiguous or adjacent property. Id. This definition ensures that OCS Sources that would otherwise be subject to PSD review do not avoid control requirements as the result of arbitrary subdivision or description of the source.

EPA recognized that the Kulluk and Frontier Discoverer are under common control and belong to the same two-digit SIC Code. P. Ex. 12, EPA Response to Comments at 59. EPA also concedes that the Permits authorize use of the Kulluk and Frontier Discoverer on “contiguous lease blocks.” P. Ex. 12, EPA Response to Comments at 59. In fact, the Permits authorize Shell’s operations on any lease blocks it owns in the Beaufort Sea, many of which are bounded by other shell lease blocks. EPA maintains, however, that the activities authorized by Shell’s Permits do not satisfy the three criteria enumerated in 40 C.F.R. § 51.166(b). Id. EPA accomplishes this regulatory slight of hand by interpreting the term “contiguous or adjacent properties” to mean something other than the plain language conveys. In its interpretation, EPA has essentially replaced the word “property” with “500-meter zone” and replaced “contiguous or adjacent” with “proximate, physically connected and interdependent.” However, the plain meaning of the regulation controls. Wards Cove Packing Corp. v. Nat’l Marine Fisheries Serv., 307 F.3d 1214, 1219 (9th Cir. 2002) .

EPA's action here is clearly erroneous because it is in conflict with the plain meaning of a properly promulgated regulation. Even if EPA's action did not contradict the plain meaning of the regulation, EPA's decision to permit each drill site as an individual source is clearly erroneous because EPA's designation of a 500-meter zone in which drill sites will be aggregated defeats the purpose of the regulation. Therefore, the Permits must be remanded and Shell must apply for a single PSD permit for all drill sites.

- (i) *The plain meaning of "contiguous or adjacent property" includes lease blocks that are physically connected at a point or along a boundary and EPA must apply the regulations in accordance with this meaning.*

The term "contiguous or adjacent property" in 40 C.F.R. § 51.166(b), as incorporated by 18 AAC 50.040, clearly includes properties that are physically touching at a point or along a boundary. The regulation states that emissions must be aggregated for sources on "contiguous or adjacent properties." 40 C.F.R. § 51.166(b). The regulation defines applicability in terms of "contiguous or adjacent properties" not "contiguous or adjacent pollution emitting activities," "contiguous or adjacent sites," or any other term. Thus, EPA must determine whether the drill ships are on contiguous or adjacent properties. In this case, it is the oil and gas lease blocks that are Shell's "property," and the question of whether the drilling takes place on "contiguous or adjacent property" must therefore be made with reference to the lease blocks owned by Shell.¹⁰

¹⁰ The OCSLA establishes a regulatory framework to grant property rights in the oil and gas underlying the OCS through leases and collecting royalties. See generally 43 U.S.C. § 1337. Through leases, the United States authorizes the highest responsible qualified bidder to develop and produce minerals from the OCS. 43 U.S.C. § 1331(c). Thus, an OCSLA lease creates a property interest in the oil and gas rights underlying the OCS.

“Contiguous” means “[t]ouching at a point or along a boundary; adjoining (Texas and Oklahoma are contiguous)” Black’s Law Dictionary (8th ed. 2004).¹¹ “Adjacent,” on the other hand, means “[l]ying near or close to, but not necessarily touching.” Black’s Law Dictionary (8th ed. 2004). As demonstrated by the use of the conjunction “or” between the two terms, if pollution-emitting activities are located on different properties, those properties must either be touching each other or close to each other for the pollution emitting activities thereon to be considered a single source. EPA’s actions must be consistent with this plain meaning.

EPA is required to interpret the regulation in accordance with this plain meaning. Safe Air for Everyone v. U.S. E.P.A., --- F.3d ----, 2007 WL 1531819 (9th Cir., May 29, 2007). In Safe Air for Everyone, the Ninth Circuit Court of Appeals recently vacated and remanded an EPA interpretation of an Idaho State Implementation Plan (“SIP”) revision that was inconsistent with the plain meaning of the prior SIP. SAFE, --- F.3d ---, 2007 WL 1531819 at *2. The issue in SAFE was whether EPA’s approval of a SIP amendment complied with Clean Air Act provisions that, *inter alia*, prohibited EPA from relaxing existing control requirements in nonattainment areas. Id. at *10. In reaching its decision, the court considered whether the SIP revision allowed a type of open burning that the prior SIP prohibited. Id. at *6. Finding that the prior SIP’s plain meaning

¹¹ In an administrative proceeding under the Resource Conservation and Recovery Act, the EAB explained that the term “contiguous” has a similar, though more specific, “legal meaning,” stating, “[t]he primary legal meaning of “contiguous” lands carries the idea that they actually touch or border each other, and implies more than a single point of contact, and thus contiguous tracts of land have one side, or at least a part of one side, in common.” In the matter of: Sharon Steel Corporation, Docket No. RCRA-III-062-CA at n. 39 (EAB, Feb. 9, 1994) (citing 17 Corpus Juris Secundum “Contiguous” 361-2 (1963 and Supp. 1992)).

prohibited field burning, the court gave effect to the plain meaning despite EPA's conflicting interpretation that the existing SIP did not prohibit field burning. Id. at *7 (when the regulation has a plain meaning, "[o]ther interpretive materials, such as the agency's own interpretation of the regulation, should not be considered") (citing Wards Cove Packing Corp. v. Nat'l Marine Fisheries Serv., 307 F.3d 1214, 1219 (9th Cir. 2002); Roberto v. Dep't of the Navy, 440 F.3d 1341, 1350 (Fed. Cir. 2006). The court explained that without giving effect to a regulation's plain meaning EPA could alter regulations without notice and public process in contravention of the Administrative Procedure Act. Id. at 7-8 (citing Exportal Ltda. v. United States, 902 F.2d 45, 50-51 (D.C.Cir.1990)).

(ii) *EPA erroneously concluded that Shell's activities do not constitute a single major source under the plain meaning of "contiguous or adjacent properties."*

Shell's activities on lease blocks that are physically connected unquestionably satisfy this requirement. Shell identifies the lease blocks that it owns in the Beaufort Sea on the second page of its permit applications. P. Ex. 1, K. App. at 2; P. Ex. 2, F.D. App. at 2. Each lease block includes three square miles of the OCS. As demonstrated by these maps, many of Shell's lease blocks are touching at a point or along a boundary. Id. The Permits authorize pollution-emitting activities on any of Shell's property in the Beaufort Sea, including operations on the same property or on property that is physically connected. P. Ex. 10, Kulluk Final Permit at 1; P. Ex. 11, Frontier Discoverer Final Permit at 1. Nothing in the Permits limits Shell's ability to locate its drilling units on the same lease block contemporaneously or sequentially, or to drill six exploration wells on one, three-mile square, lease block. Thus, under the plain meaning of "contiguous or

adjacent properties,” Shell’s activities are a single major source for PSD permitting purposes.

Instead of giving effect to the plain meaning of “contiguous or adjacent properties,” EPA based its decision on factors of proximity, physical connection and interdependence of pollution emitting activities. According to the Permits’ Statement of Basis, EPA based its decision on the following factors:

Shell’s approach is consistent with a “common sense notion of plant” as established in *Alabama Power*. Shell’s approach appears to be a logical outcome of applying recent EPA guidance developed specifically to instruct permitting authorities on how to determine the extent of the source in oil and gas fields.

P. Ex. 3, K. Statement of Basis at 10; P. Ex. 4, F.D. Statement of Basis at 11. In response to comments, EPA further explained that it did not rely on the recent EPA guidance developed for oil and gas fields mentioned in the Statement of Basis, but that other factors supported EPA’s choice.¹² EPA explained:

A single lease block, however, covers some 5,760 acres of open water accessible by the public. A drillship, on the other hand, occupies perhaps a few of these acres at a single time. The emissions generating activity occurs within a very, very small fraction of the entire area controlled by Shell. A “common sense notion of plant” does not support aggregating emissions across vast swaths of area upon which no emissions generating activity occurs. Even if two drillships should be operating within the same lease block, the ships could still be separated by a number of miles. In any case, at no time do two drillships share a physical connection, and at no time is one drillship dependent upon the support of another drillship. Their operations are independent in that sense. So too is a single drillship’s operation independent from one site to the next. EPA determined that it is not reasonable (or perhaps even feasible) to anticipate that a drillship would begin to drill a

¹² See P. Ex. 12, EPA Response to Comments at 63-64. Because EPA stated in response to comments that it did not rely on the guidance memo, Petitioner will not address the memo further. If, in response, EPA relies on the guidance memo, Petitioner respectfully requests the opportunity to fully brief this issue in reply.

well or wells from one drill site, extract itself from the site, re-position itself at another nearby location, and then begin again to drill the unfinished well or wells to completion.

Thus EPA reasonably determined that activities undertaken at the same drill site are contiguous, and therefore the activities together constitute a source while operating together at that one location. For exploration activities undertaken at different drill sites, however, the determination is less clear. In this case, EPA has determined that activities undertaken across different drill sites are most likely never contiguous nor adjacent given that the resultant source would not fall within a “common sense notion of plant.”

P. Ex. 12, EPA Response to Comments at 59-60 (emphases added). In summary, EPA focused on proximity and interrelatedness of the drill ship to conclude that the “activities” are “likely never contiguous or adjacent.”

EPA’s response focuses on the proximity of pollutant emitting activities, ignoring the fact that the properties are, in most if not all cases, contiguous or adjacent.¹³ The regulation clearly indicates that “properties” are the appropriate unit that must be “contiguous or adjacent,” not the activities thereon. Likewise, EPA decided to aggregating emissions only from drill sites located within 500 meters of each other. P. Ex. 3 & 4, Permits’ Statement of Basis at 10. This 500-meter zone created by EPA is not “property,” but rather is an artificial and arbitrary regulatory designation.

¹³ Shell has not disclosed the exact locations of drilling activities, thus Petitioner bases this assertion on the general placement of individual lease blocks in contiguous groups throughout the Beaufort Sea. See P. Ex. 1, K. Permit App. at 2; P. Ex. 2, F.D. Permit App. at 2. In the Permits’ Statement of Basis, EPA asserts that in 2007 “Shell intends to conduct its exploration activity in the vicinity of Camden Bay,” and indicates the proposed drilling sites in Figure 2. P. Ex. 3 at 5; P. Ex. 3 at 5. The lease blocks indicated in Figure 2 are contiguous for each drill ship, but not contiguous for the Kulluk and Frontier Discoverer. Nothing in the Permits, however, limits Shell’s ability to use either of the drill ships on any lease block. In addition, the Permits do not address potential drilling sites in any year other than 2007.

EPA's own guidance in applying the regulation indicates that EPA understands the plain meaning of the regulation. For example, in EPA's 1990 draft New Source Review Manual, which is guidance frequently used by permitting authorities, EPA notes that, "In most cases, the property boundary and ownership are easily determined." U.S. EPA, New Source Review Workshop Manual, Draft, October 1990 p. A-3 (available at <http://nsdi.epa.gov/ttn/nsr/gen/wkshpman.pdf>). As EPA points out, if the property is contiguous, a case-by-case analysis of proximity and interrelatedness of activities is not necessary. In other words, if the units are under common ownership or control and belong to the same two-digit SIC code, it is enough that the property is contiguous. EPA has explained the distinction as follows:

On September 26, 1986, Mr. Ken Waid of Waid and Associates asked for clarification on how the distance between two facilities would affect the applicability of the PSD regulations' one source classification to such facilities. In the case of Valero Gathering Company and Valero Transmission Company, the distance between them does not affect the applicability of the PSD regulations' one source classification to such facilities since they are on contiguous properties. . . . For cases where sources are not located on contiguous or adjacent properties, EPA cannot say precisely how far apart the activities must be in order to be treated separately. EPA can only answer that question through case-by-case determinations. See 45 FR 52695 (August 7, 1980).

November 3, 1986, letter from EPA to Texas Air Control Board (attached as P. Ex. 14) emphasizes added). EPA has also determined that "where a company purchased two plants with adjoining boundaries that produced different products but with the same SIC code numbers," the plants qualify as a single source. See August 8, 1996, letter from EPA, Region 5, to Ohio Division of Air Pollution Control at 2 (attached as P. Ex. 19).

Instead of applying this straight-forward analysis of whether, factually, the properties upon which drill sites are authorized to locate is "contiguous or adjacent," EPA

applies several factors that it has used in the past to determine if sources on non-contiguous or non-adjacent property should be considered “contiguous or adjacent” based on the proximity, physical connection, or interdependence of the activities. In its response to comments, EPA actually substitutes the word “proximity” for “contiguous or adjacent property” in the three-part test. P. Ex. 12, EPA Response to Comments at 53 (“EPA considered traditional NSR permitting concepts and EPA guidance and took into account factors such as consideration of ownership, proximity and industrial grouping.”) EPA’s analysis is flawed, however, because issues of proximity, interrelatedness of activities, and whether the activities or equipment share a physical connection should only be considered when the properties upon which a source is authorized to locate are not physically touching. EPA has sharply departed from this plain meaning.

This regulation contains no exception for OCS Sources or sources on contiguous but purportedly “vast” properties. If EPA applies a different definition of “major source” for OCS Sources, or oil and gas exploration and development activities in general, EPA must amend the regulation and afford the public an opportunity to comment on and challenge the regulation. See SAFE, 2007 WL 1531819 at *7-8 (citing Exportal Ltda. v. United States, 902 F.2d 45, 50-51 (D.C.Cir.1990)). EPA has not made such an amendment here, and EPA’s interpretation is not entitled to deference because the regulatory term unambiguously requires aggregation of activities located on properties that physically touch. Auer v. Robbins, 519 U.S. 452, 461 (1997) (agency interpretation of an ambiguous regulation is controlling, unless plainly erroneous or inconsistent with the regulation); Christensen v. Harris County, 529 U.S. 576, 588 (2000); see also In Re

Sealed Case, 237 F.3d 657, 667 (D.C. Cir. 2001).¹⁴ As in Christensen, the regulation here is unambiguous in its instruction that all emission sources with the same two-digit SIC code, under common control, and located on contiguous or adjacent property are part of the same single source for PSD permitting purposes. 40 C.F.R. § 51.166(b). Because the Permits authorize Shell to operate on any lease block, including multiple drill sites on one lease block and drill sites contiguous or adjacent lease blocks, all of Shell's operations are a single source under the plain meaning of 40 C.F.R. § 51.166(b), as incorporated by reference in 18 AAC 50.040(h)(4)(b)(iii). A single major source PSD permit must be required. Alternatively, the Permits must be revised to appropriately limit Shell's operations.

Even if EPA's action was consistent with the plain meaning of the regulation, which it is not, EPA's decision to limit the source to a single drill site is clearly in error. The purpose of aggregating emissions from activities on contiguous or adjacent properties is to ensure that otherwise eligible sources do not escape PSD's requirements by dividing industrial facilities into their smaller component parts. Because separating property by transferring ownership of tracts located between two units, or simply locating units on non-contiguous and non-adjacent properties would enable an owner to avoid PSD review, EPA has interpreted "contiguous and adjacent" to include considerations of proximity and the relationship between units, such as a pipeline or use of a common support facility where properties are not physically connected or otherwise "contiguous

¹⁴ EPA is not entitled to deference for its interpretation from this Board because the Board's decision is that of the agency, thus the separation of powers issues that underlie deference jurisprudence are not implicated. See In re Peabody Western Coal Co., CAA Appeal No. 04-01, slip op. at 17, n. 27 (EAB, Feb. 18, 2005)(citations omitted).

or adjacent.”¹⁵ EPA employs similar factors when determining whether two sources on contiguous or adjacent property and under common control, but with different two-digit SIC codes should be considered a single source for permitting purposes. See August 25, 1999, letter from EPA Region 5 to Wisconsin Department of Natural Resources (attached as P. Ex. 18). EPA’s actions in those situations serve the purposes of the PSD program by ensuring that new or modified sources of significant air pollution are regulated in spite of attempts to artificially divide a source into its component parts.

In contrast, EPA’s interpretation here is in direct conflict with the purpose of the regulation. EPA’s interpretation ensures that emissions from multiple drill sites will never be aggregated. Locating two drill sites within 500 meters of each other concurrently is physically impossible. Each drill ship physically inhabits a radius of 500 meters or more around its hull. See P. Ex. 2, F.D. App at 3 (each of eight anchors will reach approximately 500 meters away from the vessel); P. Ex. 1, K. App. at 3 (each of twelve anchors will reach approximately 700 meters away from the vessel). Thus, under EPA’s interpretation, the Kulluk and Frontier Discoverer would never be considered part of a single source for permitting purposes, since they cannot physically occupy the same space. This interpretation renders the term “contiguous or adjacent property” in the regulation a nullity, which clearly contravenes the intent of the definition of “major

¹⁵ See April 20, 1999, letter from EPA Region 8 to Colorado Air Pollution Control Division (attached as P. Ex. 15) (discussing sources on non-contiguous, non-adjacent property connected via pipeline); May 21, 1998, letter from EPA Region 8 to Utah Division of Air Quality (attached as P. Ex. 16) (discussing factors used to determine whether sources on non-contiguous, non-adjacent property are “adjacent” for regulatory purposes); August 21, 2001, letter from EPA Region 10 to Alaska Department of Environmental Quality (attached as P. Ex. 17) (discussing sources on non-contiguous, non-adjacent property that are so functionally interconnected as to be considered adjacent).

source” for PSD permitting purposes.

3. Even if the Board Concludes That EPA’s Interpretations of Section 328 and Alaska’s PSD Program are Entitled to Deference, EPA’s Interpretations Must Fail as Contrary to the Statutory Purpose and Inconsistent with Prior Agency Practice.

Congress’s intent in amending the Clean Air Act to include Section 328 was to reduce air pollution from offshore oil and gas operations by ensuring that OCS equipment, activities and facilities undergo PSD review requiring compliance with a BACT emission limit. See S. Rep. 101-228, 101st Cong., 1st Sess. 28, at 3263 (1990).¹⁶ Section 328 explicitly requires compliance with the PSD program. 42 U.S.C. 7627(a)(1) (instructing EPA to promulgate regulations to ensure OCS Sources “comply with the provisions of part C of subchapter I of this chapter”). EPA’s adoption of a 500-meter source definition essentially ensures that oil and gas exploration activities will never have to install modern pollution controls. This is because EPA’s interpretation allows a single OCS Source to emit 249 tons of a pollutant at one site, pull anchor and move over 501 meters, and emit 249 tons of a pollutant *ad infinitum* without complying with PSD.

One of EPA’s justifications for its 500-meter aggregation decision is that “open water accessible by the public,” or large distances may separate operating drill ships or locations at which drill ships successively operate. P. Ex. 12, EPA Response to Comments at 59. Section 328 explicitly recognizes that offshore operations occur in open water and involve emissions from sources many miles from the drill by defining OCS Source to specifically include “drill ship exploration,” and by considering as direct

¹⁶ Congress intended that “emission control requirements for new, modified, and existing facilities; offset requirements for new and modified facilities; and permitting, monitoring, reporting, enforcement, and fee requirements” would apply with equal force to offshore sources as to onshore sources.

emissions from any vessel servicing or associated with an OCS source within 25 miles. 42 U.S.C. §§ 7627(a)(4)(C), 7627(a)(4)(C). Neither statute nor regulation provides an analogous provision for onshore sources. Thus, EPA should not use the very nature of offshore drill ship exploration - that it occurs on the open ocean - to support an interpretation that allows Shell to avoid PSD permitting requirements where Congress has explicitly extended applicability to 25 miles from the OCS Source.

Similarly, EPA's interpretation runs counter to the purpose of aggregating emissions from multiple sources under common control, with the same two-digit SIC code and located on contiguous or adjacent property in the PSD program. The purpose of considering sources that meet these three requirements as one "major source" is to ensure that sources of pollutant-emitting activity do not evade major source status, and the pollution control requirements made applicable thereby, by artificially sub-dividing sources. See In the Matter of Oglethorpe Power Co., Amended Order Denying Petition for Objection to Permit at 7 (Nov. 14, 2005) (attached as P. Ex. 20) ("The purpose of the "common control" test in defining a major stationary source for permitting purposes is to ensure that sources do not evade major source status (and its more stringent requirements) by artificially sub-dividing sources"). That is exactly what Shell has achieved in the challenged Permits.

Shell is deploying large equipment consisting of multiple sources of pollution into the Beaufort Sea contemporaneously to locate mineral resources. EPA's selection of a 500-meter radius around the hull of each drill ship to define "major source" is just as unreasonable as imposing a 500-meter radius around a chemical manufacturing plant when another chemical manufacturing plant is located on the same property 501 meters away. Further, there is no indication in the record that EPA considered the localized

effects of combined emissions from these vessels operating within the same lease block or on contiguous lease blocks, or the cumulative effect of the drill ships operating repeatedly in a 52-week period within the same lease block or on contiguous lease blocks. As noted above, the lease blocks are three miles square. EPA has also offered no explanation for why sources operating on land one mile apart that have no other physical connection but that are under common control and producing similar products must be permitted as a single source, but the drilling ships here should not be considered a single source in the same configuration under the same regulation.

EPA's own prior permitting decision involving the same equipment performing the same task also starkly undermines EPA's decision to aggregate emissions from drill sites only within a 500-meter radius. In 1993, the Kulluk was determined to be a major source and required to obtain a PSD permit. P. Ex. 34, ARCO OCS Air Quality Permit Application (Feb. 1993) at ES-2. Arco Alaska, Inc.'s ("ARCO") permit application estimated 120 days of Kulluk operation, along with its support vessels, would produce over 2,300 tons of NO_x and over 260 tons of Carbon Monoxide (CO). In 1993, EPA aggregated the pollutant emitting activities at the Kulluk at individual drill sites into a single source for PSD permitting purposes.

In response to NSB's comment on this point, EPA stated:

On December 14, 1993, EPA issued a PSD permit to ARCO to construct and operate the Kulluk in the Beaufort Sea. The permit was founded upon a February 1993 application within which ARCO estimated NO_x emissions of 2,311.9 tons over a 4-month period from mid-July to mid-November. Given that one might expect to drill perhaps three holes over a 4-month period, ARCO was essentially predicting NO_x emissions of 578 tons per drill site. Shell, on the other hand, is committing to generate less than 245 tons of NO_x per drill site.

EPA could find nothing in the 1993 permitting record documenting an EPA position requiring that emissions across separate drill sites be aggregated for the purpose of determining PSD applicability. While EPA may have instructed ARCO to calculate the Kulluk's emissions across a four-month drilling season to determine PSD applicability in 1993, EPA does not believe such a decision is precedent setting.

Applicability determinations are achieved on a case-by-case basis. As explained in EPA's response to the next comment, EPA's determination to recognize Shell's Beaufort Sea exploration activity as a series of minor sources is based on Shell's specific operation parameters and commitment and is permissible under the OCS Air Regulations and Section 328 of the CAA.

P. Ex. 12, EPA Response to Comments at 57. EPA's response does not sufficiently explain how EPA arrived at opposite conclusions for the same equipment under identical regulations. EPA simply maintains its position that the regulations do not require aggregation of the drill site emissions.

Moreover, EPA's response does not explain how the same equipment performing the same function could be estimated to generate 578 tons over 40 days (EPA explained that over 120 days a drill ship could drill at three drill sites, allowing approximately 40 days at each drill site) in 1993, and yet EPA finds Shell's commitment to generate only 245 tons of NO_x over 43 to 59 days at one drill site credible. The NSB requested that EPA base Shell's Permits on the air pollution estimates recorded for the Kulluk, but EPA ignored this request based on Shell's "operation parameters and commitment." P. Ex. 12, EPA Response to Comments at 57. EPA's previous permitting action is a more appropriate basis for a permitting decision, however, for the reasons explained in Section C, below, because Shell's "operation parameters" significantly understate emissions and Shell's "commitment" is unenforceable as a practical matter.

C. EPA Incorrectly Calculated the OCS Source’s Potential to Emit and Failed to Impose Practically Enforceable Permit Limits to Ensure the OCS Source Will Not Exceed “Major Source” Emission Thresholds.

Assuming for the sake of argument that EPA did not err in permitting each drill site as an individual minor source, EPA must issue a PSD major source permit for each drill site because each drill site is a “major stationary source.” Ak. Stat. 46.14.130. Shell’s potential to emit NO_x at each drill site exceeds 250 tons per year and the conditions in the Permits do not effectively limit potential to emit to below that major source thresholds.

Potential to emit is “the maximum emissions ... from an OCS source operating at its design capacity.” 40 C.F.R. § 55.2. Maximum emissions at design capacity can be limited by physical or operational limits on capacity if those limits are federally and practically enforceable. Id. These limits include aspects of the physical design of the source and practically enforceable operation and production limits contained in a federally enforceable permit. Id. Potential to emit for an OCS source also includes emissions from vessels servicing or associated with the source within 25 miles of the source. Id.

As explained below, EPA clearly erred in determining potential to emit for Shell’s OCS source in a number of respects. First, EPA failed to provide the public with information necessary to validate or criticize Shell’s potential to emit calculation during the public comment period. Second, EPA based potential to emit on Shell’s expectations and assumptions rather than the maximum physical and operational design capacity of the emission units. Third, EPA improperly issued an Owner Requested Limit (“ORL”) to limit Shell’s potential to emit without following the proper permitting procedures.

Fourth, the ORL, even if properly issued, is unenforceable as a practical matter. As a result of EPA's errors in calculating potential to emit, Shell's Permits do not ensure that Shell's operations will remain below major source thresholds at each drill site.

Therefore, the Permits must be remanded and Shell must either comply with the PSD permitting requirements or EPA must impose enforceable permit limits to ensure Shell will not exceed the major source thresholds.

1. EPA Failed to Provide Relevant Information in the Administrative Record for the Draft Permit.

Meaningful and informed public participation requires that the public be provided with the information before the agency when it was making its decision. Federal regulations require EPA to provide an administrative record both during the public comment period and following the issuance of the final permit. 40 C.F.R. §§ 124.10(d)(vi), 124.18(c) (as incorporated by 40 C.F.R. § 55.6). The administrative record on the draft permit must include the permit application and any supporting materials provided by the applicant. 40 C.F.R. § 124.9(b)(1). The Eleventh Circuit in Sierra Club v. Johnson held that EPA has a duty to object to a Title V permit issued by a state that failed to strictly compliance with the procedural public notice and comment requirements of its own SIP. 436 F.3d 1269, 1280 (11th Cir. 2006) (stating "when it comes to the Title V permitting process, EPA is not a board of pardons. Its duty is to enforce requirements, not to grant absolution to state agencies that have violated them"). EPA's duty to ensure that its actions comply with its own public comment regulations should be no less stringent.

Here, EPA failed to identify all materials submitted by Shell in support of its potential to emit calculation and make them reasonably available for public review. The Public Notice for the Permits states that, “[e]ach technical analysis report provides EPA’s evaluation of the corresponding application, the derivation of the terms in the corresponding permit, and a complete listing of documents in the administrative record.”

P. Ex. 7, Public Notice at 2. In the Statement of Basis listing of what the applicant submitted, which is a list of the same documents provided on the Region 10 OCS Permits website. See P. Ex. 3 & 4, Permits’ Statement of Basis at 11-12;

<[http://yosemite.epa.gov/R10/AIRPAGE.NSF/webpage/Outer+Continental+Shelf+\(OCS\)>](http://yosemite.epa.gov/R10/AIRPAGE.NSF/webpage/Outer+Continental+Shelf+(OCS)>).

On March 8, 2007, EPA received information from Shell to support its potential to emit calculation. EPA did not mention these documents in the Permits’ Statement of Basis. With regard to Shell’s potential to emit calculation, EPA indicated in the Statement of Basis that Appendix B of the Permit applications was the basis for Shell’s 245 tons per year NO_x potential to emit calculation. Appendix B contains information on specific emission units’ emissions that add up to Shell’s requested minor permit limit of 245 tons per year of NO_x. See P. Ex. 1 & 2, App. B. Appendix B does not contain specific information on Shell’s assumptions on operating hours and operating loads for individual emission units. Appendix B is a compendium of emissions factors used in Shell’s calculations, the resulting emission rates, fuel consumption totals and total actual emissions expected. Id.

In response to comments questioning the validity of Shell’s potential to emit calculation based on the information in Appendix B, EPA repeatedly referred to the

information in Appendix B to the Permit. P. Ex. 12, EPA Response to Comments at 19, 20, 40, 44, 51. However, EPA also indicated that it has verified these assumptions using information supplied by Shell on March 8, 2007. EPA stated:

Upon request, Shell submitted projected fleet activity information to EPA electronically on March 8, 2007. The fleet activity information projects fuel usage given a handful of operating scenarios. Worst-case fuel usage data was then manipulated to provide a basis for the emissions calculations in the application. The information demonstrates that Shell has attempted to forecast the fleet activity necessary to complete exploration at a drill site under multiple operating conditions. The information is available for review as an element of the administrative record.

P. Ex. 12, EPA Response to Comments at 19.

EPA did not disclose that it received this information from Shell in the Permits' Statement of Basis or on EPA's OCS Permits Website, even though EPA received the information weeks before the Statement of Basis and draft Permits were issued. EPA represented that its list in the Statement of Basis was the complete list of documents in the record. Since the March 8, 2007, submission was not included in the list, the public had no notice that other information had been submitted by the applicant until the final Permits were issued.

This type of information is essential to Petitioner's and the public's evaluation of whether Shell has satisfied the requirement to calculate potential to emit based on maximum emissions, and to evaluate Shell's ORL. Based on EPA's statement that the information was supplied by Shell and projects fuel usage for various operating scenarios, including a worst-case scenario that was "manipulated" to form the basis of the emissions calculations in the application, Petitioner was entitled to review the information as part of the administrative record on the draft Permits. Petitioner was

prejudiced by EPA's failure because the information would have allowed Petitioner to closely examine the assumptions underlying Shell's potential to emit calculations, seek the advice of technical experts regarding the appropriateness of those calculations, and supplement the record with information in response.

NSB requested the administrative record for the final Permits on June 27, 2007, and NSB received portions of the administrative record on July 11 and 12, 2007. In the June 11, 2007, production, no files were explicitly identified as Shell's March 8, 2007, submission, though information regarding days of operation, average fuel consumption and load in different ice conditions were supplied. See 2007 Kulluk Beaufort Sea Air Emissions Time Line; 2007 Frontier Discoverer Beaufort Sea Air Emissions Time Line (attached as P. Ex. 21). EPA's failure to make this information available until five days before the appeal period had run interfered with the preparation of this petition.¹⁷ In addition, other interested members of the public have not been afforded an opportunity to review and comment on this information. The information goes to the heart of the issues in this permitting action, and the Board should not pardon EPA's failure to provide a public comment period with the entire administrative record available as required by 40 C.F.R. § 124.10.

2. EPA Improperly Based Potential to Emit on Expected or Average Emissions.

Shell failed to estimate maximum emissions at design capacity. Rather, Shell based its emission estimates on "an assemblage of reasonable activity level assumptions, none of which are absolute maxima." P. Ex. 1, K. App. at 6; P. Ex. 2, F.D. App. at 6.

¹⁷ To the greatest extent possible, Petitioner has included citations to newly supplied information in this petition to demonstrate EPA's clear error in accepting Shell's potential to emit calculations. Petitioner has not had an opportunity to fully review and address this information in this Petition, however.

These “reasonable activity level assumptions” understate potential emissions. Neither Appendix B nor the spreadsheets supplied on July 11, 2007, provide the information necessary to determine the project’s potential to emit, *i.e.* the maximum emissions at design capacity. Maximum emissions at design capacity must be based on the source operating at the load level, for the number of hours, and in the conditions at which the maximum emissions are expected that are within the physical design capacity of the equipment. In other words, “the concept of potential to emit refers to the maximum emissions a source can generate when being operated within the constraints of its design.” United States v. Louisiana-Pacific Corp., 682 F. Supp. 1141, 1157 (D. Colo. 1988). EPA clearly erred by failing to require a calculation of potential to emit at maximum design capacity.

Shell’s potential to emit calculation is contained in Appendix B to its applications and the spreadsheets submitted to EPA on March 8, 2007. This information contains numerous assumptions that do not represent maximum emissions at design capacity because they are based on expectations given a particular set of assumptions about the conditions in the Beaufort Sea in 2007. See P. Ex. 21. For example, Shell indicates that it expects drilling operations to last about 30-45 days per site, but operations could continue for up to 60-75 days per site. P. Ex. 1, K. App. at 4; P. Ex. 2, F.D. App. at 4. Shell based its “maximum emissions” estimate on a “59-day drilling program for the deeper wells and a 43-day drilling program for shallower wells.” Id. Because Shell indicates that operation for 75 days at a deep well may be necessary to complete the task for which the Permits are being issued, the source’s potential to emit must be based on 75 days of operation.

For support vessels, Shell averaged the expected loads in open water, moderate ice, and heavy ice for individual emissions units based on an average of ice conditions in the Beaufort Sea for the past three years. Id. Ice conditions range widely from year to year. Id. The ice conditions affect expected emissions significantly. For example, for some emissions units in some conditions, the expected load was entered as 0%, while in other conditions the load for the same emissions units was entered as 70%. Id. For other units, load ranged from 20% in open water to 80% in heavy ice. Id. Shell estimates that the Vladimir Ignatjuk will use one heat boiler at 40% load in open water, 50% load in moderate ice, and 60% in heavy ice, though Shell provides no information to demonstrate that the boiler lacks the a capacity to operate at 100% load in any of these conditions. Id. For many other emissions units on support vessels, Shell assumed the units would never operate. Id. The potential to emit must be based on maximums under normal operation, not averages. Normal operations are not the operations that Shell assumes will be necessary, but are operations that the emissions units are physically designed to perform at maximum capacity. Shell has not provided any information to demonstrate that any units on the support vessels lack the capacity to operate. Thus, Shell's omission of units in its emissions inventory understates potential to emit.

Shell also understated the Jim Kilabuk's potential to emit. Shell based the Jim Kilabuk's potential emissions on the assumption that the ship would travel to each drill ship once every other week at a speed of 12 knots and remain there for twenty-four hours. Id. Shell provided no information about the Jim Kilabuk's maximum speed. Shell also failed to demonstrate that offshore exploration projects in the Arctic have required resupply only every other week and that the work necessary at the site can be completed

in 24-hours. The emissions from the Jim Kilabuk must be calculated at maximum design capacity unless the source demonstrates that the capacity is limited by a physical design limit or an operational limit is included in the Permit. In the absence of such an operational limit, i.e. a limit on operating hours or amount of fuel used, the Jim Kilabuk potential to emit must be based on the maximum number of trips at the maximum speed the Jim Kilabuk is physically capable of. While under Shell's scenario, the Jim Kilabuk accounts for only 1.2 tons per year of NO_x, assuming only that the Jim Kilabuk resupplied the ship once per week instead of once every other week, as is authorized under the Permits, Shell's 5 tons per year emission cushion is depleted to only 3.8 tons per year.

For the Kulluk, emissions are based on the expected engine use during drilling and other types of work, and on the number of days estimated to be spent at those types of work. Id. For example, Shell estimates that while moving or performing MLC work, one engine will be used at 100%, one at 20%, and one at 0%. Id. While drilling, one engine will be used at 100%, one at 40%, and one at 0%. Id. Shell then estimates the number of days to be spent performing each task necessary for drilling an exploration well with the Kulluk. Id. Shell estimates fuel usage based on these estimates. Again, Shell assumes that it will never operate some of the emissions units on the Kulluk, but provides no support for the proposition that the units cannot operate. On the contrary, evidence in the record indicates that the units can operate at full load. In 1993 ARCO calculated potential to emit from the Kulluk based on 100% operation of all engines, boilers, trash incinerators, and internal combustion engines at 100%, with the exception of one emergency air compressor, which ARCO assumed to operate one-half hour per

week. P. Ex. 34 at 3-2 - 3-3. EPA has not required, and Shell has not provided, documentation to demonstrate that this capacity has decreased.

None of the estimates and assumptions employed by Shell reflect maximum emissions from the Kulluk or its support fleet when it is being operated within the physical or operational limits of their design. Neither are they reflected in a Permit. As explained below, Shell's ORL does not effectively limit potential emissions. Contrary to EPA's assertion, potential to emit must be based on maximum emissions at design capacity, not on a permit applicant's forecasts. Shell's drilling plan and weather forecasts are not part of the physical or operational design of the emissions units. Therefore, the information presented by Shell in Appendix B to its applications and in Petitioner's Exhibit 21 does not calculate the source's potential to emit, and without such a calculation EPA, Petitioner, and the public are unable to assess the applicability of PSD provisions at a single drill site.

3. EPA Clearly Erred in Issuing Shell's Owner Requested Limit Because Shell Failed to Satisfy the Regulatory Requirements and the Limit is not Federally and Practically Enforceable.

Because none of the limits on operation that Shell assumes in its potential to emit calculation are limits on the sources' physical or operational design, Shell depends upon its ORL to reduce its potential to emit to below major source thresholds. Shell has not satisfied the procedural requirements for an ORL because Shell did not provide a calculation of both potential to emit and actual emissions, and thus Shell failed to demonstrate the effect of the Permit limits on potential to emit. In addition, the limits in the Permits are not enforceable because they are limits on annual actual emissions expressed in tons per year of NO_x without corresponding short-term verifiable emission limits and enforceable limits on operation. Moreover, the testing, monitoring and

reporting requirements are not sufficient to ensure continuous compliance with the limits.

- (i) *Shell's application fails to satisfy the requirements to establish an Owner Requested Limit.*

Without an appropriate calculation of potential to emit, Shell has not satisfied the application requirements for its Owner Requested Limit. An application for an ORL must include both “a calculation of the stationary source’s actual emissions and potential to emit air pollutants,” and “a calculation of the effect the limit will have on the stationary source’s potential to emit.” 18 AAC 50.540(j), 50.225(b)(2)-(3). The regulation clearly requires the applicant to provide “actual emissions” and “potential to emit,” which are different calculations, and then to specify how the emission limits and operational limits in the permit will affect potential to emit.

EPA did not require Shell to submit this information as required. Instead, Shell submitted an emissions inventory that added up to its requested 245 tons per year NOx cap. In its response to comments, EPA simply restates its position that Shell has satisfied the requirement for a calculation of actual emissions and PTE by submitting the emissions inventory adding up to 245 tons per year of NOx and the “handful of operating scenarios” discussed above. P. Ex. 12, EPA Response to Comments at 19. EPA cannot demonstrate how Shell satisfied the requirement to calculate the effect the limit will have on its potential to emit because in this case EPA has equated potential to emit with the expected actual emissions which equal the permit limit, turning a three step process into a one step process. This method is clearly contrary to the ORL regulation, and demonstrates that the ORL is not a practically enforceable permit limit sufficient to allow Shell to avoid PSD permitting.

(ii) *Shell's Owner Requested Limit is not enforceable.*

Shell's ORL is not an enforceable limit on PTE to keep Shell's emissions below major source thresholds. While Shell's ORL is "federally enforceable," in the sense that it is contained in a permit that can be enforced by EPA, Alaska, and citizens, it is a blanket cap on yearly NO_x emissions that is not "practically enforceable." Although a facility can reduce its estimated maximum capacity, and thus its PTE, by factoring into the PTE calculation physical and operational limitations, it can do this only where the limitations used in the PTE calculation are both legally and practically enforceable.¹⁸ Enforceable limitations include physical or operational restrictions, such as installing pollution control equipment, operating within parameters that decrease emissions, restrictions on hours of operation, and restrictions on the fuel quantity and quality. Blanket restrictions on total actual annual emissions are not practically enforceable and thus cannot be used to limit PTE to below major source thresholds. United States v. Louisiana-Pacific Corp., 682 F. Supp. 1122, 1131-1133 (D. Colo. 1987) (stating "not all federally enforceable restrictions are properly considered in the calculation of a source's potential to emit. While restrictions on hours of operation and on the amount of materials combusted or produced are properly included, blanket restrictions on actual emissions are not.").

In Louisiana-Pacific, the court noted that blanket restrictions on actual emissions are "virtually impossible to verify or enforce." Id. at 1133. Moreover, allowing blanket

¹⁸ 40 C.F.R. § 55.2; Memorandum from Terrel F. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring, and John S. Seitz, Director, Stationary Source Compliance Division, OAQPS (June 13, 1989) (attached as P. Ex. 22); Weiler v. Chatham Forest Products, Inc., 392 F.3d 532, 535 (2d Cir. 2004) (citing EPA Interim Policy on Federal Enforceability of Limitations on Potential to Emit, at 3-4 (Jan. 22, 1996) (attached as P. Ex. 23),

restrictions on actual emissions in tons per year would thwart the PSD program entirely. If a source receives a minor source permit limiting its total annual emissions to 245 tons per year of NO_x, as here, thus avoiding the PSD programs requirements, the source can actually emit 250 tons per year of NO_x without satisfying PSD, in contravention of the statute. As the court explained:

Finally, the real problem with LPC's construction is that it fails to perceive a distinction between the potential to emit and actual emissions. As a result, it fails to account satisfactorily for a source which obtains permits under another regulatory scheme limiting emissions to 250 TPY or less and then fails to stay within those limitations. Clearly if Congress intended that a new source with the potential to emit 250 TPY should be subject to PSD new source review, it most certainly intended that a new source which actually emits more than 250 TPY should be subject to the PSD program. Yet, under LPC's construction, a source which actually emits more than 250 TPY would be completely exempt from PSD if it was careful enough to obtain properly worded permits under some other regulatory scheme.

Id. The PSD program is fundamentally a "preconstruction" program and EPA must apply its terms to ensure that PSD review occurs before operation, rather than after a source has violated its annual permit limit.

Thus, EPA has concluded that "[i]n order for emission limitations to be Federally enforceable from the practical stand point, they must be short term and specific so as to enable the Agency to determine compliance at any time." Memorandum from John S. Seitz to Air Management Division directors, Re: Clarification of New Source Review Policy on Averaging Times for Production Limitations, April 8, 1987 (attached as P. Ex. 24). The New Source Review Manual explains that emission and operational limits "must be clearly expressed, easily measurable, and allow no subjectivity... Such limits should be of a short term nature, continuous and enforceable." EPA New Source Review

Manual p. H.5. An appendix to the New Source Review Manual further clarifies the meaning of enforceability. It notes:

Compliance with any limitation must be able to be established at any given time. When drafting permit limitations, the writer must always ensure that restrictions are written in such a manner that an inspector could verify instantly whether the source is or was complying with the permit conditions. Therefore, short-term averaging times on limitations are essential.

Emission limits should reflect operation of the control equipment, be short-term, and, where feasible, the permit should require a continuous emissions monitor. Blanket emissions limits alone (*e.g.*, tons/yr, lb/hr) are virtually impossible to verify or enforce, and are therefore not enforceable as a practical matter.

When permits contain production or operational limits, they must also have requirements that allow a permitting agency to verify a source's compliance with its limits. These additional conditions dictate enforceability and usually take the form of recordkeeping requirements.

EPA New Source Review Manual, pp. c.3–c.5. The Alaska ORL regulation similarly requires that a minor permit establishing an ORL can only be approved if the source demonstrates that it is capable of complying with the limit and “permit conditions are adequate for determining continuous compliance with the limit.” 18 AAC 50.542(f)(8)(a)-(b) (emphasis added).

In this case, Shell's ORL is a limit on actual annual emissions as measured on a 52-week rolling basis using a compliance equation based on the amount of diesel fuel consumed each week and emission factors for categories of sources. P. Ex. 10 & 11, Final Permits, Condition 7. The Permits do not directly limit total fuel consumption or any other operating parameter. The only point at which a regulator or the public will be able to ascertain noncompliance is when Shell exceeds 245 tons per year of NO_x based on its compliance equation. This is precisely the type of limit that is practically unenforceable. It is neither a production nor an operation limit; it is a blanket cap on

emissions. EPA has explained that to appropriately limit potential to emit permits “must contain a production or operational limitation in addition to the emission limitation in cases where the emission limitation does not reflect the maximum emissions of the source operating at full design capacity without pollution control equipment.” P. Ex. 22 at 5-6. The Permits contain no limits on operation or production, such as a limit on the amount of fuel combusted at specific emission units with verified emission factors or a limit on the number of hours of operation for specific emission units, that will ensure that emissions do not exceed major source thresholds and allow the source to demonstrate continuous compliance. Shell is free to operate and produce in any manner until it reaches its 245 tons per year cap.

In response to comments, EPA indicated that the limit ensures compliance because “[m]onitoring requirements will enable Shell to track its emissions closely, and Shell will know whether it is approaching noncompliance with the NO_x ORL.” P. Ex. 12, EPA Response to Comments at 44. The monitoring provisions of the Permits require Shell to record fuel consumption and perform compliance equations once per week. P. Ex. 10 & 11, Final Permits, Condition 7. In response to comments that, for a variety of reasons, Shell may be unable to complete its exploration drilling at a drill site under the NO_x cap, EPA replied that “EPA recognizes that it is entirely possible that Shell may be unable to complete a hole at every drill site under all circumstances, especially under heavy ice conditions as you suggest.” P. Ex. 12, EPA Response to Comments at 43.

EPA also stated:

Although the permit requires Shell to calculate cumulative NO_x emissions once per week, EPA would expect Shell to deploy a data acquisition and handling system that also computes drill site cumulative emissions at least once per day for those large emission units employing data loggers. Should it become known that completion of the hole is not possible

without exceedance of the PSD avoidance limits, it is EPA's expectation that Shell will begin to undertake procedures to safely exit the hole in a manner acceptable to MMS so as to comply with the NO_x cap.

P. Ex. 12, EPA Response to Comments at 44. EPA's expectations do not create enforceable permit limits. EPA recognizes the possibility that conditions on the ground make it "entirely possible" that Shell would have to exceed the emission cap to accomplish its exploration goals. Despite this reality, EPA relies only on Shell taking voluntary precautions to ensure that it will not exceed its emissions cap.

Additionally, the situation is more complex than EPA implies. As EPA observes, to exit a hole Shell must comply with the regulations of other agencies. Id. Shell cannot simply "flip the switch" when it reaches its NO_x emission cap. The limits included in the Permits do not allow EPA, Alaska, NSB or the public to ensure that Shell will not violate its emission cap unless and until a violation has already occurred, and unauthorized air pollutants are released into the environment. Thus, the Permit does not assure that the potential to emit will remain below the major source thresholds as promised in Permit Condition 7. The Permits must be revised to include limits on operation as well as short-term limits on emission rates from each emission unit or category of similar units.

(iii) *The Permits fail to require sufficient testing, monitoring and reporting to ensure the source remains below major source thresholds.*

EPA can only assure compliance with permit limits through appropriate testing, monitoring and reporting. EPA has indicated that monitoring must be continuous and direct where feasible. EPA New Source Review Manual at I.3. The only showing Shell made that continuous direct monitoring was not feasible consisted of a single paragraph in its March 26, 2007, application addendum stating:

At EPA's request, Shell considered the option of continuous emission monitoring (CEMs) of the NOx emissions of the larger diesel engines used for vessel propulsion and drilling. There are several factors related to use of CEMs, any one of which would make continuous monitoring not feasible or impossible. Primarily, the monitoring probes, sample lines and analyzers are not designed for the Beaufort Sea environment of salt spray, continuous motion, wind, and cold temperatures. Thus, CEMs are not proposed for use here.

P. Ex. 1a at 1. Shell and EPA provide no information about vendors contacted, technical literature or any other information to support Shell's finding.

If continuous direct monitoring is not feasible, as Shell claims, initial and periodic direct measurement should be required. EPA New Source Review Manual at 1.3. Where direct monitoring is not feasible, surrogate monitoring may be used. Id. For Shell's annual NOx cap, EPA accepted a hybrid compliance demonstration method that includes emissions calculations using factors from initial and annual stack testing of the "largest sources" within the first thirty days of operation, and emission calculations based on generic emission factors for all other sources. For sources subject to direct testing, vendor or generic emissions factors will be used until the stack test results are available.

Shell will track compliance with the NOx cap using fuel consumption by the largest emitters as a surrogate for NOx emissions for the entire source based either on generic emission factors or annual stack test results. P. Ex. 10 & 11, Final Permits, Condition 7; P. Ex. 1a. The amount of fuel consumed is then used in two equations with those emission factors once per week. Id. One equation uses fuel based emission factors to determine NOx emissions and one equation uses load based emission factors. P. Ex. 10 & 11, Final Permits, Condition 7. The emission factors required are contained in the Permits' Condition 8. P. Ex. 10 & 11, Final Permits, Condition 8. Shell submitted

generic emission factors in Appendix B to the permit Applications. The accuracy and reliability of the emission factors is essential to the reliability and accuracy of the compliance demonstration. Shell stated that stack tests will be performed on units comprising 90% of the emissions within 30 days of commencing operation and annually thereafter. P. Ex. 1a at 2. These units will use generic emission factors for up to 30 days. The remaining units will use generic emission factors throughout operation. Id.

As the Alaska Department of Environmental Conservation commented, “verifiable calculations are required to prove that under worst case conditions, with the methods and accuracy being implemented, the owner or operator will comply with the limit that has been requested.” Alaska Department of Environmental Conservation Air Quality Division Comments (Amended) at 2 (attached as P. Ex. 25). EPA summarized ADEC’s comment as follows:

ADEC is asking EPA to either (a) reduce the PSD-avoidance NO_x emissions cap to take into account the uncertainty of both the emission factors and monitored values, or (b) incorporate safety factors into the equation based upon the assumption that emission factors and monitored values are biased low at the limit of each value’s tolerance range

P. Ex. 12, EPA Response to Comments at 25.

In response, EPA included a permit condition to address the accuracy of fuel use monitoring. P. Ex. 12, EPA Response to Comments at 25-26. However, EPA declined to address the uncertainty of the emission factors with a permit limit with a reduction in the NO_x cap or safety factors in the equation. Id. at 26. EPA stated that the uncertainty of the fuel based emission factors from AP-42 and the load based emission factors was unknown, and could just as easily be biased high rather than biased low. Id. EPA stated:

EPA is not aware of any regulation or guidance specifying if, or even how, an air permitting authority is supposed to address emission measurement uncertainty in the context of a PSD-avoidance cap. Even if EPA could quantify the uncertainty in emissions factors and monitored parameters, EPA does not think it is appropriate to reduce the emissions cap to accommodate the possibility that all inputs are biased low to a degree equivalent to the each parameter's respective tolerance range. In EPA's view, there is an equal probability that the inputs may be biased high.

Id.

In fact, EPA guidance exists that contradicts EPA's decision. In EPA's AP-42 Compilation of Air Pollutant Emission Factors ("AP-42"), EPA states, "[d]ata from source-specific emission tests or continuous emission monitors are usually preferred for estimating a source's emissions because those data provide the best representation of the tested source's emissions." USEPA AP-42 Compilation of Air Pollutant Emission Factors, Introduction at 1 (available at <<http://www.epa.gov/ttn/chief/ap42/>>). In In the Matter of Cargill, Inc., EPA clarified that the permitting authority must use site-specific data, rather than AP-42 emission factors, in the analysis of reasonably available control technology (RACT) for an existing source. In the Matter of Cargill, Inc. Petition IV-2003-7 (Amended Order) at 8 (Oct. 19, 2004) (attached as P. Ex. 26). EPA explained that "AP-42 factors do not yield accurate emissions estimates for individual sources and that use of these factors to develop source-specific permit limits and/or to determine compliance with permit requirements is not recommended." Id. at 7 n.3. The AP-42 factors represent only an average range of emission rates, and are limited by the data available from all facilities in a source category. Id. In In the Matter of Peabody Western Coal, CAA Appeal No. 04-01, slip op. at 17-25 (EAB, Feb. 18, 2005), EPA rejected Peabody's attempt to use a similar method to establish a synthetic minor limit on

PTE. In making that decision, EPA evaluated the particular reliability of the emission factors according to the evaluation in AP-42 and site specific conditions. Id.

Shell based many of its generic emission factors on assumptions and calculations from AP-42. Where, as here, the applicant is avoiding the more stringent requirements of the major source permitting programs, EPA should ensure that the applicant uses the best available data to calculate emissions. When actual data from an existing source is available, that is the best evidence of potential to emit. If no actual data is available, it may be appropriate to use AP-42 emissions factors, but only if such factors are reliable predictors of actual emissions. Shell did not explain why it used AP-42 emission factors for existing equipment, and EPA did not require source-specific emission tests for many emission sources. Neither did EPA explain why source specific data for each source should not be generated for use in the compliance equation or address the reliability of the individual AP-42 emission factors used. EPA simply stated that the emission factors could overstate emissions as well as understate emissions.

In many cases, these emission factors are inappropriate to establish a permit limit according to EPA's own guidance. Shell's emission factor for diesel-fired internal combustion engines smaller than 600 hp on the Kulluk and the Jim Kilabuk, 0.031, was derived from AP-42 Table 3.3-1. P. Ex. 1, Kulluk App., App. B at B-14. These sources are in source categories A3 and D, which are categories Shell will not stack test. P. Ex. 8, K. Final Permit, Condition 8. Eleven individual emissions units are included in source category A3, and six individual emission units are included in source category D.¹⁹ P.

¹⁹ The Permits use of the 0.031 lbs/hp-hr emission factor for internal combustion engines be used in the compliance equation for all Jim Kilabuk sources, though some are greater than 600 hp.

Ex. 8, K. Final Permit at 6, 8-9. The AP-42 emission factors for these seventeen sources are unreliable, and Shell's compliance equation couples this unreliable factor with average operating parameters, yielding very unreliable calculations.

First, AP-42 indicates that the NO_x emission factors in Table 3.3-1, 0.031 lbs/hp-hr and 4.41 lbs/MMBtu, are inappropriate for use in determining emissions from an individual source. AP-42 at 3.3-4. Second, the factors are rated poorly. AP-42 rates emissions factors from A (most reliable) to E (least reliable) based on their reliability in the professional judgment of AP-42's authors. AP-42, Introduction at 8. AP-42, Table 3-3.1. The NO_x emission factors in Table 3.3-1 are rated D. A rating of D indicates that the tests used to establish the factor are "based on a generally unacceptable method, but the method may provide an order-of-magnitude value for the source." AP-42, Introduction at 8. Third, Shell converted the AP-42 lbs/hp-hr emission factor to lbs NO_x/gal. in the compliance equation using the AP-42 average brake specific fuel consumption value of 7000 Btu/hp-hr. P. Ex. 1, Kulluk App., App. B at B-15. AP-42 explains that the most accurate method for calculating emissions from these sources is on the basis of "brake specific" emission factors in lbs/hp-hr and should be calculated as the product of the brake specific factor, the usage in hours, the rated power available, and the load factor. AP-42 at 3.3-4. By using the average brake specific fuel consumption value, Shell further degrades the D rated emission factor. While these are generally small units, at least one deck crane engine is projected to generate over 2.4 tons of NO_x per year using these flawed emission factors. P. Ex. 1, K. App., App. B at B-1. Actual emission could be higher. Because there is no emissions monitoring or stack testing, the extent of actual emissions is ascertainable only to an "order of magnitude" using the AP-42

emission factor.

This sort of uncertainty hardly rises to the level of technically verifiable calculation to prove that the owner will comply with the NO_x emission cap. Because Shell will stack test only the “largest emitters,” and use AP-42 emission factors for some emission units, the monitoring for the NO_x cap of 245 tons per year does not adequately ensure the source will remain below major source thresholds. Shell’s NO_x cap is 98% of the major source threshold, and the uncertainty of the generic emission factors and inherent variability of monitored emissions will likely result in the source actually exceeding major source thresholds.

D. The Modeling EPA Accepted from Shell was Flawed and does not Demonstrate Protection of Federal and State Ambient Air Quality Standards

Because EPA must reevaluate Shell’s drill ships as single OCS Sources, and Shell must satisfy the Alaska PSD program because all of Shell’s drill sites constitute a major source, on remand EPA must require Shell to perform the requisite ambient air quality analyses to demonstrate that the operations will not cause a violation of NAAQS or increment. Even if Shell’s operations constitute separate minor sources, EPA erred in accepting Shell’s modeling to satisfy the Alaska minor source regulations.

Alaska’s regulations require an applicant for a minor source permit to submit as part of its permit application “a demonstration that the proposed potential emissions from the stationary source will not interfere with the attainment or maintenance of the ambient air quality standards.” 18 AAC 50.540(2). The regulation requires a demonstration for each pollutant requiring a minor permit to construct a new source with a potential to emit more than 40 tons per year of NO_x, 15 tons per year of particulate matter, 40 tons per

year of sulfur dioxide, 0.6 tons per year of lead, or 100 tons per year of carbon monoxide. 18 AAC 50.502(c)(1). The regulation requires that a source including a portable oil and gas operation make a demonstration for NO_x, sulfur dioxide, and particulate matter. 18 AAC 50.502(c)(2). The ambient air demonstration must follow “an approved modeling protocol.” 18 AAC 50.540(2). EPA required Shell to make a demonstration for NO_x, sulfur dioxide and particulate matter.²⁰ P. Ex. 3 at 13 & 4 at 14, Permits’ Statement of Basis, Section 2.0.

The modeling analyses submitted by Shell are flawed in several respects, primarily with regard to the validity of the model for this application, characteristics of the source, and background data. As will be explained below, the models used have not been validated under Arctic conditions and no explanation was provided for not requiring

²⁰ EPA concluded that Shell’s drilling operations include a “portable oil and gas operation.” P. Ex. 3 at 13 & 4 at 14, Permits’ Statement of Basis, Section 2.0. A “portable oil and gas operation” means “an operation that moves from site to site to drill or test one or more oil or gas wells, and that uses drill rigs, equipment associated with drill rigs and drill operations, well test flares, equipment associated with well test flares, camps, or equipment associated with camps.” 18 AAC 50.990(124). Alaska has a general minor permit for portable oil and gas operations not located on open water. Alaska has also issued minor permits for portable oil and gas operations in offshore locations within 3 miles of the seaward boundary that have the potential to emit less than 250 tons per year of a regulated pollutant. Because Section 328 is not applicable to these sources, Alaska does not consider emissions from any vessel servicing or associated with these operations as direct emissions from the operation. Alaska considers drill rig engines as “non-road” engines, and their emissions are not included when determining the classification of a source under Ak. Stat. § 46.14.130. Also, these sources use drill rigs, not drilling vessels of the type Shell proposes. The Shell project, and the legal requirements to which the project is subject *vis a vis* Section 328, are different from those for “portable oil and gas operations,” and therefore the regulatory requirements developed explicitly for those operations are not directly applicable to offshore oil and gas exploration on the OCS. However, EPA has exercised its discretion here to require an ambient air quality demonstration with regard to sulfur dioxide and particulate matter that would not otherwise be required for a minor source emitting less than 40 tons per year of sulfur dioxide and less than 15 tons per year of particulate matter under 18 AAC 50.540.

the preferred/recommended model. Shell failed to include all of the emissions units for each source in its source data inputs, and a range of inputs accounting for operating conditions. The background data is also inadequate, and EPA has failed to address significant comments about background concentrations, including Shell's failure to address impacts from the Kulluk and Frontier Discoverer as nearby sources. While "the choice of appropriate data sets for the air quality analysis is an issue largely left to the discretion of the permitting authority[,] [t]hat discretion is not unlimited." In re Hawaii Electric Light Company, Inc., 8 E.A.D. 66, 98 (EAB 1998) (internal citation omitted). At a minimum, EPA must articulate support for its decisions with regard to these issues with more specificity than has been supplied thus far.

First, the models used by Shell are inappropriate for this application. Neither of the models used by Shell have been validated under Arctic conditions, and Shell used screening meteorological data in all of its modeling runs. Shell initially submitted a SCREEN3 modeling analysis using screening meteorological data. P. Ex. 1 at 24; P. Ex. 2 at 23. SCREEN3 is the screening level model of ISC3, a refined dispersion model, which EPA replaced with AERMOD as a preferred/recommended dispersion model. See 40 C.F.R., Part 51, App. W at App. A. Shell subsequently submitted a ISC-PRIME modeling analysis. P. Ex. 1c at Appendix B. ISC-PRIME, unlike SCREEN3, can also be used as a refined model with appropriate inputs. Here, Shell used SCREEN3 screening meteorological data inputs into the ISC-PRIME model to produce a screening level analysis. P. Ex. 1c, App. B. ISC-PRIME is not a preferred or recommended model for PSD permits, rather it is an alternative dispersion model that can be used with case-by-case justification to the permitting authority. 40 C.F.R., Part 51, App. W § 3.2.2. EPA

guidance states that a case-by-case justification will “normally result from a determination that (1) a preferred air quality model is not appropriate for the particular application; or (2) a more appropriate model or analytical procedure is available and applicable. Id. EPA did not address either of these factors in response to comments addressing the choice of model, and Shell provided no justification for the choice in its application materials. Moreover, ISC-PRIME is not a specific model for offshore conditions. The Minerals Management Service’s Offshore Coastal Dispersion (“OCD”) model is a more appropriate model for offshore conditions. EPA did not explain why it chose not to require an offshore-specific model, except to say that it was not necessary because the screening model did not identify a NAAQS violation. P. Ex. 12, EPA Response to Comments at 35.

The ISC-PRIME modeling analyses indicate that the Kulluk contributes over 64% of the NO_x NAAQS (64.6 µg/m³), over 65% of the 24-hour PM₁₀ NAAQS (103.2 µg/m³), and over 50% of the 24-hour SO₂ NAAQS (204.9 µg/m³). P. Ex. 1c at App. B, Kulluk at 15. The Frontier Discoverer contributes over 22% of the NO_x NAAQS (22.7 µg/m³), over 50% of the 24-hour PM₁₀ NAAQS (84.2 µg/m³), and over 25% of the 24-hour SO₂ NAAQS (97.6 µg/m³). P. Ex. 1c at App. B, Frontier Discoverer at 15. Shell’s impacts on ambient air quality are considerable, even when constrained by EPA’s limitation of the source to a single drill site. Other problems with Shell’s analyses indicate that the impacts are even greater than those projected.

First, the Kulluk model does not include all combustion units operating 24 hours per day for 60 days. For example, the air model only included 2 engines and 1 boiler, when there are actually 3 main engines and 2 boilers on the Kulluk. EPA responded to

this comment by noting that “[a]ll sources proposed for routine operations were considered in the air quality modeling analysis.” P. Ex. 12, EPA Response to Comments at 35. The Kulluk Permit authorizes use of all three main engines and both boilers on the Kulluk. P. Ex. 10 at 6-7. Shell can use any combination of the available equipment, and changes in the method of operation of these combustion units could affect pollutant concentrations.²¹ Shell’s second modeling runs also excluded emissions from the drill ships and tow vessels when maneuvering, even within 25 miles of the drill site. See P. Ex. 1c, App. B at 3. As described in detail above, the OCS Source is the equipment, not the drill site, and, alternatively, Section 328 of the Clean Air Act requires that emissions from vessels servicing or associated with an OCS Source be considered direct emissions from the source. Modeling scenarios must include the worst case emissions from maneuvering.

Moreover, Shell did not model the combined concentration for the Kulluk and Frontier Discoverer operating in the same area. The Permits authorize simultaneous operation as close as 501 meters apart. Shell should have modeled the impacts of its other drill ship as a nearby source, or included the modeled concentration for the other drill ship in the background concentration. See 40 C.F.R., Part 51 App. W § 8.2.3. This is particularly true where, as here, no monitors are located near the site and the permittee

²¹ “For point source applications the load or operating condition that causes maximum ground-level concentrations should be established. As a minimum, the source should be modeled using the design capacity (100 percent load). If a source operates at greater than design capacity for periods that could result in violations of the standards or PSD increments, this load should be modeled. Where the source operates at substantially less than design capacity, and the changes in the stack parameters associated with the operating conditions could lead to higher ground level concentrations, loads such as 50 percent and 75 percent of capacity should also be modeled. A range of operating conditions should be considered in screening analyses.” 40 C.F.R., Part 51, App. W § 8.1.2.

was not required to collect site-specific data. When no monitoring data is available near a source, EPA allows use of a regional site if it is “impacted by similar natural and distant man made sources.” 40 C.F.R., Part 51, App. W § 8.2.2. Shell used background data inputs from 1999 monitoring from BP’s Arctic North Slope Eastern Region monitoring program east of the Badami oil field on the North Slope. P. Ex. 1c, App. B at 13. This monitoring data is inappropriate because it is on land and does not accurately reflect background concentrations in the relevant offshore or coastal areas. Moreover, significant gaps in North Slope air monitoring exist. Shell used near pristine background concentrations, e.g. NO_x background concentration of 3.0 µg/m³ and NO_x NAAQS of 100 µg/m³. EPA’s acceptance of this background concentration given the monitors’ distance from operations, the age of the data, the evidence cited in public comments about the insufficiency of the data,²² and the fact that Shell failed to include emissions from its concurrently operating drill ship in the background data raise serious questions about the analyses. EPA should offer more explanation and support for its position that the background data are “adequately representative,” than is evident on the present record. See P. Ex. 12, EPA Response to Comments at 32-33.

For the reasons stated above, the modeling analysis used to demonstrate that Shell’s project will not violate ambient air quality standards is seriously flawed and do not support a determination that pollution will not exceed the levels requisite to protect public health and the environment. EPA has relied extensively on this assessment

²² See P. Ex. 12, EPA Response to Comments at 32, citing comments identifying National Research Council, *Cumulative Environmental Effects of Oil and Gas Activities on Alaska’s North Slope* at 153 (2003), as relevant information.

throughout the permitting process to support its permitting decision. Therefore, the Board should remand the Permits for reconsideration of these analyses.

E. The Board Should Review EPA's Exercise of Discretion in Scheduling Public Hearings in the NSB During An Essential Subsistence Harvest Period Because It Denied Affected Communities An Opportunity for Meaningful Participation.

The procedures governing OCS Source permits require public notice of a draft permit and at least 30 days for public comment. 40 C.F.R. § 124.10(b)(1). In addition, EPA has discretion to hold a public hearing if there is significant public interest in a permit decision or a hearing would help clarify issues. 40 C.F.R. § 124.12(a). EPA provided notice of the proposed Shell Permits on March 30, 2007. P. Ex. 7, Public Notice. The public comment period was open from April 5, 2007, until May 12, 2007. Id. EPA simultaneously scheduled a public hearing for 6:30 pm, May 8, 2007, in Nuiqsut, and indicated that it might schedule additional public hearings in Barrow and Kaktovik the week of May 7, 2007. Id. EPA held the public hearing in Nuiqsut as scheduled, but scheduled no public hearings in Barrow and Kaktovik. P. Ex. 12, EPA Response to Comments at 79. EPA's exercise of discretion in scheduling these public hearings and the time allowed for public comment during the spring subsistence harvest period denied affected resident and Native Alaskan communities an opportunity for meaningful participation in the permit decision, and the Board should thus review EPA's action.

On March 27, 2007, Dan Meyer and Natasha Greaves, EPA staff, contacted NSB management and their consultant to notify the NSB of EPA's intent to hold public hearings on the Shell Permits and to obtain NSB input on the hearing schedule. At that time, NSB recommended that EPA schedule hearings the week of April 2, 2007,

consistent with the timing of the State hearings on Shell's project. Alternatively, NSB recommended the week of June 4, 2007, and asked that EPA extend the public comment period until after the public hearing to allow for the preparation of written comments. NSB explained that it would be difficult for residents to participate in hearings during the month of May because traditional subsistence harvest and cultural activities in May. P. Ex. 8, April 18, 2007, letter from Johnny Aiken, NSB Planning Department to Richard Albright, EPA Region 10. As Mr. Aiken explained to EPA, May is a very critical subsistence harvest month for marine mammals, including the bowhead whale. Id. Additionally, Shell's operations are proposed for the same areas used for spring and fall subsistence hunting, meaning that some residents particularly affected by the interference of Shell's operations with subsistence hunting would be the very residents unavailable to comment on the project at the public hearing. See Id.

Despite NSB's protest, EPA held the public hearing in Nuiqsut on May 8, 2007, and no further public hearings in other affected villages were scheduled. P. Ex. 12, EPA Response to Comments at 79. EPA did not provide a formal response to NSB's request to reschedule the hearing until May 8, 2007, the day of the hearing. See May 8, 2007, letter from Richard Albright, EPA Region 10, to Johnny Aiken, NSB, Re: Request to Extend the Public Comment Period (attached as P. Ex. 27). EPA informed NSB that EPA planned to hold the meeting as scheduled only when NSB contacted EPA by phone several days before the scheduled hearing. See May 23, 2007, letter from Johnny Aiken, NSB, to Richard Albright, EPA Region 10, Re: EPA's Denial of Request to Change Public Hearing and Comment Schedule for Shell Offshore, Inc. OCS to Respect Spring Subsistence Harvest (attached as P. Ex. 28). The NSB residents who participated in the

May 8, 2007, public hearing were forced to suspend their spring subsistence activities to participate. P. Ex. 28. The Nuiqsut community's spring subsistence activities do not involve whale hunting, and generally are less intensive than fall subsistence activities. This allowed residents to participate in the public hearing in Nuiqsut, though under less than ideal conditions. P. Ex. 28 at 2. EPA's choice interfered with Nuiqsut residents' ability spend time before the hearing reviewing the Draft Permits and formulating their comments, however. P. Ex. 28 at 2. In Barrow and Kaktovik, spring subsistence activities are more intensive and residents of those villages were unheard because attendance at a hearing in May would have required them to neglect their essential spring harvest activities.

Subsistence activities are essential to the Alaska Native communities of the NSB. Subsistence practices not only provide an essential source of nutrition, but also embody the cultural, social and spiritual values that are the essence of Alaska Native heritage. The subsistence diet is critical to the long-term health of Alaska Natives. See Declaration of Aaron Wernham (submitted in *Alaska Wilderness League, et al. v. Dirk Kempthorne, et al.*, Appeal No.: 07-71457 (9th Cir. 2007)) (attached as P. Ex. 29). A decrease in the subsistence diet is "particularly harmful for Alaska Natives because they are believed to have a particular genetic susceptibility to diabetes." P. Ex. 29 ¶ 13. When Alaska Natives change their subsistence diet, they experience diabetes rates "at a much higher frequency than in the non-Native U.S. population." Id. A decrease in the abundance and availability of subsistence foods can also lead to severe psychological dysfunction caused by food insecurity and hunger. Id. ¶¶ 15-16, 18. NSB requested that EPA structure the public comment process to respect these essential needs of its residents to protect their

health and traditional way of life.

Conversely, Shell encouraged EPA to proceed with the public hearing in May, citing the necessity of beginning operations by early July, and other purely economic concerns. See April 30, 2007, letter from Susan Childs, Shell Offshore, Inc., to Elin Miller, EPA Region 10 Administrator, Re: Extension of Comment Period on Shell Kulluk and Frontier Discoverer's 2007-2009 Permit Application for the 2007-2009 Beaufort Sea OCS Exploration Drilling Program (attached as P. Ex. 30). EPA's decision placed the Alaska Native communities in the position of choosing either to carry out subsistence activities essential to their health or to participate fully in the public comment process on the Permits that authorize Shell to emit hundreds of tons of air pollution into their air shed annually. P. Ex. 28 at 1. As noted above, NSB initially requested that the public hearings be held the week of April 5, 2007. P. Ex. 8. EPA instead chose to put the interests of the oil and gas industry above those that will have to live with the health and environmental impacts of their operations. See June 19, 2007, letter from Elin Miller, EPA Region 10 Administrator, to Johnny Aiken, NSB, Re: Request to Assist EPA in Scheduling Public Comment Periods; Request for EPA to Work with North Slope Borough (NSB) Address Concerns on Shell Permitting Action (attached as P. Ex. 31).

In addition to failing to schedule the public hearing and extending the public comment period as requested by NSB, EPA also ignored local government, tribal and resident input on the permit action. Specifically, NSB requested that EPA make actual operating records for the Kulluk and Frontier Discoverer available so that the NSB, tribes, and the public could evaluate the historical basis for the operating hours and equipment use assumptions included in Shell's Permit Applications. P. Ex. 9, NSB

Comments at 13. Specifically, NSB commented:

Shell does not provide a historical basis for the operating hours or equipment use assumptions used in its application. Shell should be required to provide operating records for the Kulluk and Discoverer to verify combustion source usage requirements in previous similar exploration wells, so that the agencies and public can determine if the operating hours and usage restrictions proposed by Shell are realistic and appropriate.

Id. In response, EPA stated:

Some commenters argue that EPA should have deemed the application incomplete and requested Shell to provide historical operating records from the Kulluk, Frontier Discoverer (if applicable), and associated icebreakers operating in the Beaufort Sea in the past. With that data, Shell may have been able to construct an emissions inventory based upon ice conditions as they exist during the early to mid 1990's, the last time the Kulluk was deployed to the Beaufort Sea. However, EPA does not believe that the uncertainty surrounding Shell's ability to complete a hole under heavy ice conditions should compel EPA to deny Shell's application. EPA does not believe that the intent of the ORL permitting program was to reject such applications under the circumstances. When the permittee requests that an enforceable emission limit be included in its permit, it recognizes that the ORL may constrain its operations in this instance.

P. Ex. 12, EPA Response to Comments at 43. EPA also describes the information provided by Shell on March 8, 2007, relating to fleet activity that EPA relied on in determining that Shell's emission projections were accurate and reliable. Id. As noted above, this information was not included in the Statement of Basis listing of the administrative record and was not provided on EPA's. In addition, attendees of the public hearing requested more information about the proposed facilities, but EPA, having concluded that it had provided all of the information required by law, refused these requests. Id. at 81-82.

EPA's exercise of discretion in structuring the public comment process and

materials available for review implicates important policy considerations. Several NSB communities are formally recognized by the Federally Recognized Tribe Act of 1994, 25 U.S.C. § 479a. 72 Fed. Reg. 13,648, 13,651 (March 22, 2007). Executive Order 13175 recognizes the unique legal relationship between the Alaska Native tribes, as “domestic dependent nations” that exercise sovereignty and self-government, and federal agencies, which implement the United State’s trust relationship with the tribes. 65 Fed. Reg. 67,249 (Nov. 9, 2000). Executive Order 13175 instructs federal agencies to work with recognized tribes on a government-to-government basis when undertaking regulatory actions that implicate the tribe’s resources, or treaty or other rights. 65 Fed. Reg. at 67,250 (“Agencies shall respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments”).

EPA’s actions here violate this order and fail to give effect to the government-to-government relationship between the Native Alaskan communities and EPA. Rather, EPA chose a policy of expediting Shell’s oil and gas exploration project. See P. Ex. 27. EPA’s failure to schedule public hearings or extend the public comment period to allow the Alaskan Native communities to adequately review and comment upon the proposed Permits, along with EPA’s failure to identify and make available the entire administrative record on the draft permit and provide the requested historical operating records, constitutes an exercise of discretion, implicating important policy issues, that the Board should review.

E. The Board Should Review EPA’s Failure to Appropriately Address NSB’s Environmental Justice Concerns.

EPA has an affirmative duty to identify and consider the racial and socioeconomic status of the community most likely to be affected by its permitting action. Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” 59 Fed. Reg. 7629 (Feb., 1994). Executive Order 12898 requires:

To the greatest extent practicable and permitted by law, each Federal agency shall make achieving environmental justice 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 populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.

Id. This directive compels EPA first to identify the minority and/or low-income populations that will experience human health or environmental effects of the permitted activity, and then to determine, with reference to the non-minority and/or more affluent populations, whether the minority or low-income population will experience disproportionate or high and adverse effects. See In re AES Puerto Rico, L.P., 8 E.A.D. 324, 350-51 (EAB 1999).

In In re AES Puerto Rico, EPA completed an environmental justice analysis that identified low-income populations in areas of maximum potential impact from the proposed facility, and then assessed whether the proposed facility would cause “disproportionately high and adverse effect on human health or the environment in these areas.” Id. In its analysis, EPA assessed maximum short and long-term impacts of pollutants and concluded that maximum concentrations were both within the limits established by the NAAQS and applicable Significant Impact Levels. Id. at 351. In

addition to establishing that the facility would not cause a violation of the standards, however, EPA also evaluated the Toxic Release Inventory for Puerto Rico and studied health impact information to provide meaningful responses to the community, though not required by the Clean Air Act or EPA's regulations. Id. Moreover, EPA required the facility to confirm the results of its pre-permit air quality analysis through ambient air monitoring and further air quality analyses. Id. EPA exercised its discretion to include these additional requirements in the permit "as a tangible response to the community's concerns about air quality and to fulfill the goals of the Executive Order." Id. EPA also expanded public comment opportunities in response to environmental justice concerns. Id. at 352. The Board held that these efforts to address environmental justice appeared adequate on the record. Id.

In In re: Knauf Fiber Glass, conversely, the Board remanded a PSD permit to the delegated permitting authority for failure to provide an adequate environmental justice analysis in response to comments on the issue. In re: Knauf Fiber Glass, 8 E.A.D. 121, 174-175 (EAB 1999). In Knauf, the petitioners submitted written comments and oral testimony urging EPA to assess the impacts on the area and to prepare an EJ assessment based on the average income in the project area. Id. at 174. In response to this request, a memorandum was included in the administrative record that memorialized a meeting between the permitting authority and EPA in which EPA concluded that "[i]t was his [the Region IX employee's] conclusion after reviewing the project location and surrounding demographics that it was unlikely that an Environmental Justice issue applied." Id. at 175. The Board remanded the permit for EPA to develop a more complete response. The Board stated:

At a minimum, the petitioner's comment invoking the Executive Order deserves a more complete response than the cursory denial that is currently in the record. If an environmental justice issue is unlikely in the context of this proposed project, we need to know the basis for that conclusion.

Id.

On remand, the agency documented the environmental justice analysis, which analyzed the demographics of the area and assessed whether the emissions from the facility would disproportionately affect minority or low-income communities. In re Knauf Fiber Glass, 9 E.A.D. 1, 15-16 (EAB 2000). The analyses were made available for public review and comment. Id. The analyses concluded that the facility would not disproportionately affect minority or low-income populations because pollution from the facility would not cause a violation of the NAAQS or exceed PSD increment. Id. The Board found that the permitting authority had fulfilled its environmental justice obligations, noting that the particulate matter limit had been reduced by half because of community involvement in the permit process. Id.

In both In re AES Puerto Rico and In re Knauf Fiber Glass, the permitting authorities completed analyses of impacts in minority and/or low-income communities with reference to other populations. AES, 8 E.A.D. at 350-51; Knauf II, 9 E.A. D. at 15-16. In AES, EPA provided information and undertook investigation into issues and required post-permit monitoring and analysis not specifically mandated by the Clean Air Act in its effort to comply with the environmental justice directive. 8 E.A.D. at 351. In In re Knauf Fiber Glass, extensive public involvement in the permitting process resulted in permit conditions more protective of public health. Knauf II, 9 E.A.D. at 16. Conversely, EPA's efforts in this case do not rise to the level necessary to satisfy the

environmental justice directive because EPA did not undertake the kind of comparative analysis required and EPA acted to restrict opportunities for public involvement rather than tailor them in response to the particular needs of the minority community most affected by the proposed project.

First, EPA failed to undertake any comparative analysis. EPA stated in the Permits' Statement of Basis that "[t]he effects of Shell's exploratory drilling activity upon minority populations and low-income populations is documented in Sections III.B.3.d and IV.B.3.d of MMS's February 2007 Environmental Assessment of Shell's Exploration Plan." See Minerals Management Service, Environmental Assessment for Shell Offshore's Beaufort Sea Exploration Plan (Feb. 15, 2007) at 54 (attached as P. Ex. 32) [hereinafter "Shell EA"]. The Shell EA fails to satisfy EPA's obligation to conduct an analysis of whether there were disproportionate impacts to human health or the environment for minority communities because the EA concluded that it could not develop a baseline from which to evaluate disparate impacts because residents of the NSB are predominantly Alaskan Inupiat Natives. P. Ex. 32, Shell EA at 55. The EA also concluded that compliance with the Permits ensures that air quality will not exceed the NAAQS, and no significant adverse effects to air quality are expected. P. Ex. 32 at 52.

In response to EPA's incorporation of this information as its environmental justice analysis, EPA received many comments regarding environmental justice. P. Ex. 12, EPA Response to Comments at 76. These comments expressed concerns about, *inter alia*, mortality rates, increased chronic pulmonary disease, and high cancer incidence among Alaskan Inupiat Natives relative to the general population. P. Ex. 12 at 77. The comments also addressed EPA's contention that attainment or maintenance of the

NAAQS are adequately protective of human health and welfare by pointing out that current dispersion models are inappropriate for Arctic conditions, and the data necessary to carry out conclusive modeling and monitoring of pollutant levels is unavailable in many cases. P. Ex. 12 at 77.

In response, EPA restated its position that the permitting action will not have disparately high or adverse effects on human health or the environment. P. Ex. 12 at 78. EPA based this determination on modeling showing no violation of the NAAQS, unidentified additional permit requirements to protect human and environmental health, and the opportunity for public comment on the permit. P. Ex. 12 at 78.

It is clear, however, that EPA did not engage in an analysis of possible disproportional impacts on the minority population in the NSB because EPA did not consider the impacts on the Alaskan Inupiat Native population in relation to any other population. EPA did not identify or explain the unit of geographic analysis it used in determining “disproportional” or “high and adverse” impacts, or to determine that the population was homogenous to the extent that EPA could not evaluate impacts on Alaskan Inupiat Native populations in comparison with the general population.

EPA’s guidance on environmental justice analyses confirms that determining whether a minority population is present in an area potentially effected by a project requires an assessment of whether the minority population percentage is “meaningfully greater” than in the “general population or other ‘appropriate unit of geographic analysis.’” See US EPA, Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses, Section 2.1.1 (1998) (available at <http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_epa0498.pdf>).

As the environmental justice guidance explains, identification of disproportionately high and adverse effects depends on an appropriate comparison between population groups.

Id.; See also Section 2.2.1 (the terms “disproportionate” and “high and adverse” suggests the need for “comparative analysis with the conditions faced by an appropriate comparison population.”).

Highlighting the very issue presented here, EPA’s guidance states:

In addition, a simple demographic comparison to the next larger geographic area or political jurisdiction should be presented to place population characteristics in context and allow the analyst to judge whether alternatives adequately distinguish among populations. For example, all preliminary locations for a project could fall in minority neighborhoods, therefore, a comparison among them would not reveal any population differences. Consequently, an additional alternative would be necessary to allow any disproportionately high and adverse effects to be identified.

Id. at Section 2.1.1. The guidance also discusses the need to evaluate some minority communities in comparison with the statewide general population where minority populations represent a majority of the population in an entire county, such as along the Mexican border and in the Mississippi Delta. Id. at Section 3.2.1. Only after determining the appropriate geographic area for comparison can a meaningful determination of disproportionate or high and adverse effects occur. Because EPA failed to make an analytical comparison between the Alaskan Inupiat Native population and the general population, the Shell EA is an insufficient basis for EPA’s determination that the minority community will experience no disproportionate or high and adverse effects from Shell’s project.

Second, EPA’s public comment process and response to public concerns was inadequate to support a finding that EPA satisfied the environmental justice directive.

EPA's response essentially equates its environmental justice obligation with fulfilling its other obligations. EPA did not identify or address with any specificity the concerns raised by NSB, including NSB's concern that the lack of appropriate data and models to determine if, in fact, the NAAQS are being achieved in the Arctic. EPA also did not identify the additional requirements it is imposing to protect human and environmental health. EPA relies on the mandatory public notice and comment process to show that it appropriately considered the environmental justice issues presented by NSB and its residents. As noted above, NSB attempted to ensure a more meaningful public participation process by urging EPA to schedule public hearings and the public comment period during a time when more affected individuals could participate. EPA refused NSB's request. The Nuiqsut residents able to attend the public hearing expressed concerns including: the lack of adequate on site monitoring and data specific to Arctic areas; the lack of information on where drill sites will be located on Shell's lease blocks; EPA's failure to adequately consider increased health risks to residents and concomitant impacts on the community health system; concern that attainment and maintenance of the NAAQS does not adequately protect air quality in the NSB; and EPA's failure to adequately consider air pollutant deposition and other impacts on whaling and other subsistence uses. See May 8, 2007, Public Hearing Summary at 4-14 (attached as P. Ex. 33).

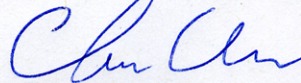
The general averments in EPA's response do not satisfy its obligation to identify and address disproportionately high adverse health and environmental effects "[t]o the greatest extent practicable and permitted by law," as required by Executive Order 12898. The Board should remand this permit with instructions to EPA to comply with the

environmental justice directive by identifying both the minority population at issue and an appropriate reference group and assessing the disproportionate impact on the minority population. This assessment must be an open and public process.

CONCLUSION

Because the Permits violate numerous statutory and regulatory requirements, they are *ultra vires*. The Permits should be remanded to Region 10 for a thorough overhaul to bring them into compliance with the requirements of the Clean Air Act. The Permits should not be reissued until such time as Shell has fully complied with the PSD program, including appropriate ambient air quality monitoring and a Best Available Control Technology analysis. NSB respectfully requests that the Board accept this petition, and allow it to fully brief the issues in this petition. Should the Board accept this petition, NSB further requests an opportunity for an oral hearing and to reply.

Respectfully Submitted,



Christopher Winter

Attorney for Petitioner

DATED: July 14, 2007

List of Exhibits

- Exhibit 1 Shell Kulluk 40 C.F.R. Part 55 Preconstruction Permit Application for the 2007 - 2009 Beaufort Sea OCS Exploration Drilling Program.
- Exhibit 1a Kulluk and Frontier Discoverer Compliance Plan (Feb. 7, 2007).
- Exhibit 1b Kulluk Compliance Equation (Feb. 7, 2007).
- Exhibit 1c Kulluk and Frontier Discoverer Application Addendum (March 26, 2007).
- Exhibit 1d Shell Email Request (March 29, 2007).
- Exhibit 2 Frontier Discoverer 40 C.F.R. Part 55 Preconstruction Permit Application for the 2007 - 2009 Beaufort Sea OCS Exploration Drilling Program.
- Exhibit 2a Frontier Discoverer Compliance Equation (March 26, 2007).
- Exhibit 3 Statement of Basis for the Kulluk Drilling Unit.
- Exhibit 4 Statement of Basis for the Frontier Discoverer Drilling Unit.
- Exhibit 5 Draft Permit for the Kulluk Drilling Unit.
- Exhibit 6 Draft Permit for the Frontier Discoverer Drilling Unit.
- Exhibit 7 Public Notice of Air Quality Permits.
- Exhibit 8 April 18, 2007 letter from Johnny Aiken, NSB Planning Department to Richard Albright, EPA Region 10.
- Exhibit 9 North Slope Borough Detailed Air Quality Comments.
- Exhibit 10 Kulluk Final Permit.
- Exhibit 11 Frontier Discoverer Final Permit.
- Exhibit 12 US EPA Region 10 Response to Public Comments.
- Exhibit 13 June 12, 2007, Letter from EPA to NSB transmitting Shell Final Permits and EPA Response to Comments.
- Exhibit 14 November 3, 1986, letter from EPA to Texas Air Control Board, Re: PSD Applicability Request, Valero Transmission Company Yoakum, DeWitt County, Texas.
- Exhibit 15 April 20, 1999, letter from EPA Region 8 to Colorado Air Pollution Control Division, Re: PSD construction permits for American Soda.

- Exhibit 16 May 21, 1998, letter from EPA Region 8 to Utah Division of Air Quality, Re: Response to Request for Guidance in Defining Adjacent with Respect to Source Aggregation.
- Exhibit 17 August 21, 2001, letter from EPA Region 10 to Alaska Department of Environmental Quality, Re: Permitting of Forest Oil's Kustatan Production Facility and Osprey Platform Pursuant to the Alaska SIP.
- Exhibit 18 August 25, 1999, letter from EPA Region 5 to Wisconsin Department of Natural Resources, Re: Oscar Mayer Foods.
- Exhibit 19 August 8, 1996, letter from EPA, Region 5, to Ohio Division of Air Pollution Control, Re: Honda of America Manufacturing, Inc.
- Exhibit 20 In the Matter of Oglethorpe Power Co., Amended Order Denying Petition for Objection to Permit at (Nov. 14, 2005).
- Exhibit 21 2007 Kulluk Beaufort Sea Air Emissions Time Line; 2007 Frontier Discoverer Beaufort Sea Air Emissions Time Line.
- Exhibit 22 Memorandum from Terrel F. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring, and John S. Seitz, Director, Stationary Source Compliance Division, OAQPS, June 13, 1989.
- Exhibit 23 EPA Interim Policy on Federal Enforceability of Limitations on Potential to Emit (Jan. 22, 1996).
- Exhibit 24 Memorandum from John S. Seitz to Air Management Division directors, Re: Clarification of New Source Review Policy on Averaging Times for Production Limitations, April 8, 1987.
- Exhibit 25 Alaska Department of Environmental Conservation Air Quality Division Comments (Amended).
- Exhibit 26 In the Matter of Cargill, Inc. Petition IV-2003-7 (Amended Order)(Oct. 19, 2004).
- Exhibit 27 May 8, 2007, letter from Richard Albright, EPA Region 10, Re: Request to Extend the Public Comment Period.
- Exhibit 28 May 23, 2007, letter from Johnny Aiken, NSB, to Richard Albright, EPA Region 10, Re: EPA's Denial of Request to Change Public Hearing and

Comment Schedule for Shell Offshore, Inc. OCS to Respect Spring
Subsistence Harvest.

- Exhibit 29 Declaration of Aaron Wernham (submitted in Alaska Wilderness League, et al. v. Dirk Kempthorne, et al., Appeal No.: 07-71457 (9th Cir. 2007)).
- Exhibit 30 April 30, 2007, letter from Susan Childs, Shell Offshore, Inc., to Elin Miller, EPA Region 10 Administrator, Re: Extension of Comment Period on Shell Kulluk and Frontier Discoverer's 2007-2009 Permit Application for the 2007-2009 Beaufort Sea OCS Exploration Drilling Program.
- Exhibit 31 June 19, 2007, letter from Elin Miller, EPA Region 10 Administrator, to Johnny Aiken, NSB, Re: Request to Assist EPA in Scheduling Public Comment Periods; Request for EPA to Work with North Slope Borough (NSB) Address Concerns on Shell Permitting Action.
- Exhibit 32 Minerals Management Service, Environmental Assessment for Shell Offshore's Beaufort Sea Exploration Plan (Feb. 15, 2007).
- Exhibit 33 May 8, 2007, Public Hearing Summary.
- Exhibit 34 ARCO Alaska, Inc., OCS Air Quality Permit Application and Review Documents for Exploration in the Beaufort Sea, Alaska OCS. (Feb. 1993).

CERTIFICATE OF SERVICE

I, Aubrey Baldwin, certify that on June 13, 2007, I served true and correct copies of **PETITION FOR REVIEW** on the following parties by overnight mail:

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DATED: May 13, 2007



Aubrey Baldwin
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