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August 9, 2007

VIA OVERNIGHT DELIVERY

Ms. Eurika Durr
Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
Colorado Building
1341 G Street, N.W., Suite 600
Washington, DC 20005

RE: ***In Re: Shell Offshore, Inc., OCS Permit Nos. R100CS-AK-07-01 and R100CS-AK-07-02*, OCS Appeal No. 07-01.**

Dear Ms. Durr:

Please find enclosed one original and five copies of Petitioner North Slope Borough's Reply to EPA Region 10 and Shell Offshore Inc.'s Responses to Petition for Review. Please contact this office if you have any questions regarding these filings. Thank you for your cooperation.

Sincerely,

Christopher Winter

Enclosures

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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	OCS Appeal Nos. 07-01 & 07-02
Permit Nos. R10OCS-AK-07-01 R10OCS-AK-07-02	

PETITIONER NORTH SLOPE BOROUGH'S REPLY TO EPA REGION 10 AND SHELL OFFSHORE INC.'S RESPONSES TO PETITION FOR REVIEW

SUBMITTED ON BEHALF OF
THE NORTH SLOPE BOROUGH

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Petitioner North Slope Borough ("NSB") respectfully submits this reply in support of its Petition 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") filed with the Environmental Appeals Board pursuant to 40 C.F.R. § 124.19.

INTRODUCTION

The Environmental Protection Agency ("EPA") in this case issued several minor source permits for drilling sites potentially located within the same lease block and as close as 501 meters apart. EPA's refusal to issue a single major source permit for these drilling activities violates both the plain language of the Clean Air Act as well as the applicable regulations. As a result, exploration activities in the Beaufort Sea are scheduled to take place this summer without the required permitting process pursuant to the prevention of significant deterioration ("PSD") program. EPA's decision raises significant legal and policy issues that the Environmental Appeals Board should review.

EPA compounded these problems by committing several errors in calculating the potential to emit for the drill ships ("PTE"). EPA kept critical information from the public, failed to adequately determine the impact of the Owner Requested Limit ("ORL") on the PTE, and even went so far as to ignore plain evidence in the record that the combined emissions from the two drill rigs may cause a violation of the National Ambient Air Quality Standard ("NAAQS"). The NSB respectfully requests that the Environmental Appeals Board ("EAB") accept its Petition for Review and vacate the minor source permits issues to Shell.

ARGUMENT

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

The first and most fundamental problem with the permitting process is that EPA issued multiple minor source permits to Shell instead of a single major source permit that would have required more stringent emission controls. EPA and Shell have failed to offer a convincing argument in support of EPA's decision to issue multiple minor source permits for individual drill sites. Most importantly, EPA's decision conflicts with the statutory language and the clear direction of Congress. EPA's attempt to parse out the statutory language is unavailing. Furthermore, even if the Board determines that EPA's decision does not conflict with the statutory language, EPA's decision conflicts with a plain meaning of the regulatory language. The decision also squarely conflicts with past agency practice, which aptly demonstrates how EPA has properly interpreted and applied the plain meaning of the regulatory language.

1. The Definition of "OCS Source" Requires That EPA Issue Major Source Permits in this Case.

Section 328 of the Clean Air Act defines an "OCS source" with reference to the "equipment, activity, or facility" and specifically states that this definition includes "drill ship exploration." 42 U.S.C. § 7627(a)(4)(C). In this case, EPA issued multiple minor source permits for the same equipment and facility – the same drill ship – operating at separate drill sites that could potentially occur within the same or contiguous lease blocks. EPA faces a formidable burden in defending its permitting action given the statutory language.

Recognizing this problem, EPA does not argue that its approach to defining the

source for purposes of the prevention of significant deterioration ("PSD") program conforms to the statutory language. Instead, EPA makes the untenable argument that the definition of OCS source as set forth in the statute does not control for purposes of the PSD permitting process. EPA Region 10 Response to Petitions for Review ("EPA Response") at 5. EPA argues that the definition of "OCS source" has no bearing on establishing the unit of analysis EPA must use to determine the applicability of the PSD program because the definition only identifies the pollutant emitting activities that are subject to federal and state regulations under 40 C.F.R. Part 55. EPA Response at 6.

EPA's attempt to so finely parse out the statutory language is unavailing, because it conflicts with the text and context of the Clean Air Act. The Clean Air Act requires a PSD permit for "any . . . source with the potential to emit two hundred and fifty tons per year or more of any air pollutant." 42 U.S.C. § 7479(1) (emphasis added). This statutory requirement pre-dated Congress' 1990 amendments of the Clean Air Act to include the OCS provisions. In amending the Clean Air Act, Congress directed EPA to issue regulations governing how OCS activities would be regulated pursuant to the PSD program. 42 U.S.C. § 7627(a)(1). Congress, therefore, knew full well that its definition of "OCS source" would directly implicate the PSD program. EPA's argument that the statutory definition "is not intended to prescribe * * * PSD applicability" finds no support based on the plain language of the statute. EPA Response at 6.

Furthermore, drill ships, by their very nature, are portable facilities. They move from one location to the next. Congress could have defined an OCS source with reference to the specific drill site but chose not to do so, instead defining the OCS source with respect to the drill ships and the equipment or facility whether attached to the OCS

or in the waters above the OCS. 42 U.S.C. § 7627(4)(C)(ii)-(iii). In contrast, EPA argues that the drill ship becomes a different source each time it disengages from the OCS and changes locations. EPA Response at 6. If Congress had intended for EPA to regulate the same drill ship as a separate source each time it moved to a different location, Congress would have explicitly stated so in the language of the statute.

2. Alaska's PSD Program Requires Aggregation of Drill Sites.

Even if the statutory language does not require EPA to consider the drill ship as the appropriate unit of analysis in determining PSD applicability, the definition of "stationary source" in Alaska's PSD program, incorporating the definition of "building, structure, facility or installation" in 40 C.F.R. § 51.166, requires aggregation of emissions across drill sites. The parties agree that the applicable definition of "stationary source," requires aggregation of activities that share a common owner or operator, the same two-digit SIC code, and are located on contiguous or adjacent property. EPA Response at 8; Shell Response at 16. The parties further agree that Shell's activities share a common owner or operator and the same two-digit SIC code. EPA Response at 9; Shell Response at 17. Thus, the only issue to resolve is whether Shell's activities are authorized on "contiguous or adjacent properties."

EPA first argues that it properly determined that the "property" at issue was the drill site and not the lease blocks. EPA Response at 10. EPA asserts that "property" is "subject to multiple meanings" but offers no other legal interpretation of this regulatory term other than simply to reiterate its position that the drill site is the appropriate scale of analysis. Id. EPA argues generally that defining "property" with respect to the lease

blocks "fails to recognize the nature of the property interest conveyed by the lease" but fails to explain that position.

In fact, just the opposite is true. The Outer Continently Shelf Leasing Act ("OCSLA"), 43 U.S.C. § 1301 et seq., mandates that the federal government regulate OCS activities pursuant to leases. A "lease" is "any form of authorization" for exploration or development and production of mineral resources. 42 U.S.C. § 1301(c). Congress authorized the Secretary to grant "any oil and gas lease on submerged lands" of the OCS. 42 U.S.C. § 1336(a)(1). Furthermore, Congress specifically limited the geographic scope of each lease, stating that it shall be a "compact area not exceeding five thousand seven hundred and sixty acres." 42 U.S.C. § 1336(b)(1). Shell purchased these lease blocks from the federal government. The lease block defines the geographic scope of the property interests held by Shell as mandated by Congress. EPA, and not NSB, has ignored the "nature of the property interests conveyed by the lease" as well as the "specific statutory structure." EPA Response at 10.

Furthermore, EPA has previously determined that the lease block is the applicable "property" in determining whether to aggregate emissions from OCS sources. EPA Administrative Record ("EPA AR") F-13. The Destin Dome project included the drilling of multiple exploratory wells on multiple lease blocks on the OCS adjacent to Florida. EPA AR F-13 at 1. The project also included production wells, processing facilities, and living quarters. Id. EPA Region 4 concluded that because multiple lease blocks were contiguous, the new drill sites, along with the other aspects of the project, would be considered together as a single OCS source. Id. at 3 (stating that the "MMS lease blocks

encompassing Destin Dome Unity 56 are contiguous") (emphasis added). EPA has failed to explain this change in position with respect to the interpretation of its own regulation.

EPA's decision to permit Shell's operations on a drill site by drill site basis without regard to the contiguity of the lease blocks is also clearly contrary to the 1993 ARCO decision. EPA explains that in 1993 ARCO did not request an Owner Requested Limit ("ORL") lower than the major source thresholds. EPA Response at 17. In fact, EPA observes, ARCO's potential to emit ("PTE") exceeded major source thresholds for each drill site, and thus, a PSD permit was required independent of EPA's decision to aggregate the emissions from all drill sites.[1] Id.

In this case, EPA issued a single permit covering each separate drill site. In the ARCO case, EPA issued a single permit covering all of the drill sites. In other words, the ARCO permit covered the entire project and not single drill sites. Regardless of whether the ARCO operations were classified as major or minor sources, EPA's current decision is inconsistent with its previous actions on the ARCO permit. The central point is that EPA issued ARCO only a single permit that encompassed all of the activities and not a series of separate PSD permits.

EPA next argues that the plain meaning of the word "contiguous" does not prevent it from defining only drill sites that are within 500 meters of each other as "contiguous or adjacent." EPA Response at 10-13. EPA's decision eviscerates the meaning of the phrase "contiguous or adjacent" and renders it meaningless.

[1] EPA also claims that ARCO based its PTE at each drill site on "expected operating conditions." Id. However, there is no indication in the record that ARCO based its PTE calculation on anything other than the maximum capacity of the equipment. It is unlikely that 24-hour operation at 100% load was ARCO's "expected operating condition."

"Contiguous" and "adjacent" have two separate meanings. *See, e.g.*, P. Ex. 14, 19. Contiguous means touching or having adjoining boundaries. NSB Petition for Review at 21, 25. "Adjacent" implies some level of proximity. EPA's interpretation of the regulatory language must therefore give separate meanings to both of these terms.

EPA's interpretation renders the term "contiguous" meaningless. EPA states that it "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." P. Ex. 12 at 59-60. Two drill ships cannot physically operate at the same drill site. Each drill ship physically occupies a radius of more than 500 meters. P. Ex. 1 (stating that each of the anchors will reach approximately 500 meters away from the drill ship); 2 at 3 (stating that each of the twelve anchors will reach approximately 700 meters away from the drill ship). EPA's interpretation therefore renders the term "contiguous" meaningless and focuses solely on a determination of adjacency (i.e. proximity).

NSB's interpretation, on the other hand, gives full effect to the regulatory language "contiguous or adjacent properties." If the operations are within adjoining lease blocks, they are considered contiguous. If the lease blocks are not touching but are close in proximity, they are considered adjacent. This is exactly the position that EPA took in permitting the Destin Dome Unity project.

Deviating from the plain language of the regulation, EPA and Shell claim that Alabama Power Co. v. Costle, 636 F.2d 323, 397 (D.C. Cir 1979) (Alabama Power II), grants EPA broad discretion in defining the scope of the source to "approximate a common sense notion of 'plant.'" EPA Response at 10-11; Shell Response at 19. EPA has misapplied the holding of Alabama Power II in this case. First, EPA's regulation

contains specific terms not included in the regulation when it was reviewed by the Alabama Power II court. Under the revised regulation, a project that fits squarely within the plain meaning of the regulation should, by definition, approximate a "common sense notion of a plant." Second, the Alabama Power II decision does not instruct EPA to abandon specific regulatory language in favor of a "common sense" approach.

EPA's current three-part analysis differs from the regulation under review in Alabama Power II. EPA originally subjected "any structure, building, facility, equipment, installation, or operation (or combination thereof) which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person (or by persons under common control)" to PSD permitting requirements. Id. at 394. The D.C. Circuit vacated that regulation because the terms "equipment," "operation," and "or combination thereof" were over inclusive. Id. at 396.

The court also reviewed EPA's definition in terms of its inclusion of "industrial units joined by contiguity and common ownership." Id. The court held that the structure of the PSD provisions of the statute, which enumerated a number of industrial process plants, rather than single emissions units, in the statutory definition of "source," allowed EPA to devise regulations that "provide for the aggregation, where appropriate, of industrial activities according to considerations such as proximity and ownership." Id. at 397.

EPA thereafter promulgated the current definition, which includes the requirement that activities to be aggregated into a single "major source" must have the same two-digit SIC Code. 45 Fed. Reg. 52675, 52,693 (Aug. 7, 1980). EPA thus chose to limit the scope of aggregation to only those activities that belong to the same "major

group" of industrial processes. The addition of this requirement was EPA's answer to the Alabama Power II court's holding that EPA's original regulation was too broad but that EPA could exercise its discretion to define the statutory terms "building," "structure," "facility," and "installation" to accomplish the purposes of the Clean Air Act in reformulating the regulation.

Now that EPA has issued a new regulation, its arguments are unavailing that the language of the regulation has no plain meaning and is ambiguous to the point of providing EPA with unfettered discretion to make decisions on a case-by-case basis. The regulation does, in fact, have a plain meaning, and EPA must adhere to that meaning.

EPA argues that the meaning of "contiguous" is ambiguous based on "administrative intent" in 1980 to aggregate only "common sense" approximations of a plant. EPA Response at 10-11, 14. An agency's interpretation of its own regulation must adhere to the "plain language of the regulation or by other indications of the agency's intent at the time the regulation is promulgated." Aspenwood Investment Co. v. Martinez, 355 F.3d 1256 (10th Cir. 2004) (citing Thomas Jefferson University v. Shalala, 512 U.S. 504, 512-513 (1994)). None of the administrative history cited by EPA or Shell indicates that EPA intended to exclude physically touching properties from the term "contiguous." Rather, EPA's position is, essentially, that it intended to reserve to itself the flexibility to make a case-by-case determination regardless of whether the activities in question satisfy the plain language of the regulation. EPA's position renders the regulation meaningless and replaces a properly promulgated regulation with agency discretion to write the regulation anew on an *ad hoc* basis for each permit applicant. This

result is impermissible.[2]

The Ninth Circuit observed in Safe Air for Everyone v. U.S. E.P.A, --- F.3d ---, 2007 WL 1531819, *8 (9th Cir. 2007), that an agency wishing to interpret its regulation in a fashion contrary to its plain meaning must clearly express the agency's intent in the rulemaking notices.[3] In the preamble to the regulation, EPA demonstrated its ability to limit specific types of sources that it would not aggregate into a single PSD source. 45 Fed. Reg. at 52,695. EPA stated that it would not consider individual pumping stations along a pipeline to be a single PSD source. Id. EPA also stated that it would not consider all vessels docking at a marine terminal as a single PSD source. Id. EPA further stated that the agency does not view a coal fired power plant twenty miles away by rail from a coal mine as a single PSD source. Id. at 52,695-96.

In contrast, EPA said nothing about this specific situation in the preamble to the regulation and offered nothing in the language to clarify its intent. EPA said nothing

[2] Furthermore, EPA makes an unconvincing argument that basing the determination on lease blocks violates a common sense notion of a plant. EPA Response at 14. In this case, Shell intends to use the same "plant" or "facility" – the same drill ship – at separate drill sites potentially within the same lease block. The drill ship is the "plant." Furthermore, Congress directed EPA to aggregate emissions from support vessels as far away as 25 miles, suggesting that the lease blocks are well within the commons sense notion of plant in the OCS setting and not, as EPA portrays, "vast" areas of open water. 42 U.S.C. § 7627(a)(4)(C). Congress also described the lease blocks as "compact areas" in limiting their geographic scope in OCSLA. 42 U.S.C. § 1336(b)(1).

[3] The Ninth Circuit explained the purpose of this requirement as follows:

> Courts' reliance on the "plain meaning" rule in this setting [of interpreting administrative regulations] is not a product of some fetishistic attraction to legal "formalism." In order to infuse a measure of public accountability into administrative practices, the APA mandates that agencies provide interested parties notice and an opportunity for comment before promulgating rules of general applicability. This right to participate in the rulemaking process can be meaningfully exercised, however, only if the public can understand proposed rules as meaning what they appear to say. Moreover, if permitted to adopt unforeseen interpretations, agencies could constructively amend their regulations while evading their duty to engage in notice and comment procedures. As applied to agency regulations, then, the plain meaning doctrine is an interpretive norm essential to perfecting the scheme of administrative governance established by the APA.

Id.

about aggregating emissions from a single drill ship at different drill sites. EPA also never stated that it would only aggregate emissions from different drill ships if they were within 500 meters of each other. The regulatory language, therefore, does not provide any indication of EPA's "intent," and EPA must strictly adhere to the plain meaning of the regulatory language.

Finally, EPA also argues that its interpretation in this case is consistent with the recently issued EPA Guidance on Source Determinations for Oil and Gas Industries, EPA Ex. F-25 (hereinafter "Wehrum Memo").[4] EPA previously disavowed any reliance upon this memorandum in its Response to Comments. P. Ex. 12 at 63-64. The Board should therefore disregard EPA's arguments on this point. Furthermore, the Wehrum Memo is an agency memorandum that was not subject to formal rulemaking and did not undergo any public notice and comment.[5] Therefore, the Wehrum Memo, unlike EPA's regulations, does not have the force of law. Christensen v. Harris County, 529 U.S. 576, 587 (2000). The Wehrum Memo therefore cannot provide the requisite "agency intent"

[4] Shell argues that EPA's current position is based on "almost 30 years of long-standing agency policy," and cites to three EPA guidance documents, one of which is the January 12, 2007, Wehrum Memo. Shell Response at 19-29. Despite Shell's claim that NSB did not address these authorities, NSB did explain that the May 21, 1998 Region 8 letter to the Utah Division of Air Quality was issued in relation to pollution emitting activities on properties that were not physically touching, and deals explicitly with factors EPA applies in determining whether non-contiguous properties are "adjacent." NSB Petition for Review at 28 n. 15. Similarly, the May 19, 1999, Region 4 letter to the Mecklenburg County Department of Environmental Protection evaluated the circumstances under which facilities located on non-contiguous properties should be considered "adjacent." Region 4 stated, "although not specifically stated in either your letter or the Williams Energy letter, we assume that WEV does not own, lease, or otherwise control the properties between the two terminals." Therefore, only the January 12, 2007, Wehrum Memo indicates EPA's intent to interpret "contiguous property" by reference to the proximity of surface sites. This recent memo hardly constitutes long-standing agency policy. Notwithstanding Shell's citation to other guidance documents, EPA in its response brief relies only on the Wehrum Memo in justifying its decision.

[5] EPA's reliance on the Wenhum memo also undercuts its argument on "regulatory intent," because if that intent was clear from the regulatory history there would no need for a clarifying policy memo.

to overcome the regulatory language, because EPA did not announce this decision until long after EPA promulgated the applicable regulation.[6]

B. EPA Erred in Calculating the OCS Source's Potential to Emit.

In addition to incorrectly defining the OCS source, EPA also made several fatal mistakes in determining the sources' Potential to Emit ("PTE"). EPA failed to provide the public with critical data needed to assess Shell's calculations of "equivalent operating hours" and "expected maximum emissions" as set forth in its application. EPA also failed to require that Shell provide data on the effect of the Owner Requested Limit as required by Alaska's regulations, data was necessary to assess Shell's proposed operating limitations. Furthermore, EPA failed to conduct an analysis of the potential combined impacts of the emissions from both drill ships operating at the same time. All of these errors have only compounded the initial problem that EPA created by issuing multiple minor source permits for each drill site. As a result, neither EPA nor the public have a clear understanding of what kind of impacts the proposed operations will have on the human health of North Slope residents.

1. EPA Failed to Provide the Information Required by EPA Regulations in the Administrative Record for the Draft Permits.

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

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[6] Shell also argues that EPA's decision is consistent with agency prior practice and ADEC permitting decisions, citing EPA's recent failure to object to a Title V operating permit for the BP Exploration (Alaska) Inc. Gathering Center #1 in Prudhoe Bay. The decision in that case involved onshore and not offshore facilities and therefore is inapplicable to the facts of this case. EPA did not rely on this case in support of its decision on the Permit. Furthermore, The EPA Administrator's decision not to object to that permit is currently being appealed to the Ninth Circuit Court of Appeals. MacClarence, et al. v. EPA, Appeal No. 07-72756 (July 10, 2007).

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 at 2 (emphasis added). 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, important and relevant information submitted by the permit applicant was omitted. P. Ex. 3 & 4 at 11-12.

EPA concedes that the March 8, 2007 submittal, EPA AR B-7, was not included in the statement of basis for the draft permits, but maintains that it was "included in the administrative record for the permits." EPA Response at 19. EPA also claims that the information was "neither legally nor technically necessary for the public to meaningfully review and comment on the draft permits or for NSB to prepare its petition for review." Id. EPA argues that the information was merely "additional detail" and that the information available in Appendix B was sufficient to evaluate Shell's emissions calculations. Id. Shell similarly contends that because the information was "supplementary" and "in addition to" information in the original application, EPA had no duty to provide that information to the public. Shell Response at 40. Shell goes farther, however, and claims that EPA need not include any supporting documents in the administrative record on the draft permit because under 40 C.F.R. § 124.18(b)(4), EPA could properly base its final decision on materials introduced after the public comment period ended. Id. EPA and Shell's arguments are without merit as explained below.

The applicable regulation requires that "any supporting data furnished by the applicant" be included in the administrative record on the draft permit. 40 C.F.R. § 124.9(b)(1). Under 40 C.F.R. § 124.10, EPA must include in its Public Notice for the

draft permits "the location of the administrative record required by § 124.9, the times at which the record will be open for public inspection, and a statement that all data submitted by the applicant is available as part of the administrative record." 40 C.F.R. § 124.10(d)(vi). EPA's public notice on Shell's draft permits indicated that the entire docket on the permits would be provided in the Barrow, Nuiqsut, and Kaktovik City Offices. P. Ex. 7 at 2. The public notice also stated 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 the documents in the administrative record." Id. (emphasis added).

The phrase "[a]ny supporting data" requires EPA to provide in the administrative record for the draft permits information submitted by the applicant to clarify and explain the basis of the emissions calculations in its permit application. Indeed, the fact that the regulation specifically enumerates both the application and "any supporting data" mandates that the data submitted by the applicant that underlies the application must be made available to the public. This requirement is more compelling here, where the data is information supplied by the applicant at EPA's request, and upon which EPA based its permitting decision.

EPA claims that the information was actually included in the "administrative record for the permits." EPA Response at 19. However, EPA admits that the information that was made available to the public in local city offices, post offices, and on Region 10's website did not include the March 8, 2007 submission. Id. EPA also concedes that the information was not referenced in the statement of basis for the draft permits. Id. EPA's misleading statements in the Public Notice and Statements of Basis, coupled with

EPA's failure to include the supporting data in the "entire docket" that was available for review in the local city offices violate the public participation requirements in 40 C.F.R. Part 124.

Since EPA concedes that it did not include the March 8, 2007, information in the "entire docket" made available to the public in local city offices, EPA and Shell argue that the information is merely supplemental, additional to, and minor, and that the public had enough information in the permit applications to review the emissions calculations. The permit application provides the following: yearly emissions in tons per year for individual emission units, yearly fuel consumption for vessels and vessel groups, equivalent operating hours for individual emissions units, emissions factors for individual emissions units, expected hourly emissions, the compliance equation, expected maximum emissions, and supporting data for specific emission factors. P. Ex. 1 & 2 at App. B. Appendix B does not provide the data necessary to evaluate Shell's use of "equivalent operating hours," or "expected maximum emissions." That information is only available in the March 8, 2007 submittal. The March 8, 2007 submittal contained information not only on the number of hours Shell "expected" that each task in drilling a hole would require, but also information on ice conditions assumed by Shell, and load factors for individual emission units for different ice conditions.

EPA's contention that it has no duty to provide this information for public review because it consists of "additional detail" is without merit.[7] The public has no way to evaluate Shell's "equivalent operating hours" or "expected maximum emissions" unless it has access to the data underlying Shell's operating assumptions. EPA requested the data

[7] Shell's claims that the "projected fleet activity information" was supplemental, minor, and a "small part of the PTE material," that need not be provided to the public is similarly in error. Shell Response at 40-41.

from the applicant, and reviewed the information in concluding that the emissions estimates were reasonable. EPA had a very good reason to request this information – it was required in order to understand Shell's PTE calculations. The public was entitled to the same information that the agency deemed necessary for the analysis. NSB is under no obligation to prove any other injury or prejudice from the agency's failure to properly disclose the required information to the public.

Shell's argument that EPA need not include any supporting documents in the administrative record on the draft permit because 40 C.F.R. § 124.18 allows EPA to base its final decision on materials introduced after the public comment period ended must fail. That regulation simply allows EPA to rely on materials placed in the record after the public comment period in response to new points raised and new material supplied during the public comment period, even if those materials aren't made available during the public comment period. 40 C.F.R. §§ 124.18(b)(4); 124.17(b). Those regulations do not excuse EPA's failure to make materials that EPA requested and the applicant submitted before the public comment period commenced available during the public's review period.

2. EPA Erred in Issuing Shell's Owner Requested Limit Because Shell Failed to Submit Information on the Sources' Maximum Design Capacity.

Alaska's regulations required Shell to submit information on the maximum design capacity for the sources and then to calculate the impact that the ORL would have on the sources' PTE. 18 AAC 50.255(b)(4)-(5), 18 AAC 50.540(j). Shell never submitted to EPA information on the sources' maximum design capacity, and therefore EPA's decision to issue the permits conflicts with Alaska's implementing regulations.

18 AAC 50.540(j) states that an application requesting an ORL must include the information required under 18 AAC 50.255(b)(2)-(7). 18 AAC 50.225(b)(4) requires "a calculation of the stationary source's actual emissions and potential to emit air pollutants." 18 AAC 50.225(b)(5) requires a "description of the proposed limits, including for each air pollutant a calculation of the effect the limit will have on the stationary source's potential to emit and the allowable emissions." The clear intent of these regulations is for the applicant to submit information to compare the PTE before and after implementation of the ORL – in other words to determine the effect of the ORL. EPA concedes this point, stating that the regulations "do require an applicant to submit information on its actual emissions, its potential to emit, and the effect the ORL will have on the source's PTE." EPA Response at 25.

In this case, the facts are undisputed that Shell did not submit information on the source's potential to emit in the absence of the ORL as required by the regulations. P. Ex. 12 at 19. Instead, Shell simply submitted the emissions inventory, which was based upon the ORL and which added up to 245 tons per year. This process violated the applicable regulations, because Shell never determined the effect of the ORL on the maximum design capacity of the sources.

Both Shell and the EPA miss the point and attempt to confuse the issue in discussing the use of "actual emissions" as opposed to "potential to emit." EPA Response at 25-26; Shell Response at 48-49. Shell could have satisfied the regulation by submitting information on the potential to emit in the absence of the ORL and then comparing that to the PTE with the ORL in place. 18 AAC 50.225(b)(5). NSB does not primarily challenge the use of potential to emit data as opposed to actual emissions data.

Shell's argument that "NSB engages in a hyper-technical inquiry as to whether SOI has met the precise application requirements" therefore misses the point entirely. Shell Response at 48.

Rather, the salient point is that Shell failed to submit and EPA failed to require any information on the maximum design capacity without the ORL in place. Shell only submitted information on the PTE with the requested ORL. Because of Shell's failure to submit this information, both the agency and the public had no way to calculate "the effects the proposal limit will have on the stationary source's potential to emit and the allowable emissions." 18 AAC 50.225(b)(5).

Thought of another way, 18 AAC 50.225(b)(4) requires that the applicant submit information on the source's PTE at the time the application is completed. At this time, there is no ORL in place. The PTE must therefore be calculated based upon the maximum design capacity. The applicant is also required to submit information on the effect of the requested ORL. 18 AAC 50.225(b)(5). The agency can then verify the applicants' calculations and quantify the impact of the requested ORL. This is the only way to read the regulations to provide them with any meaning. EPA's decision to issue the Permits in the absence of this information renders the ORL invalid and contrary to applicable law.

In response to NSB's assertion that EPA must require Shell to submit a calculation of PTE that reflects maximum design capacity, EPA simply reiterates its position that Shell is not required to submit such a calculation. EPA Response at 20-21. EPA contends that Shell need only submit information necessary to estimate "maximum expected emissions considering the owner-requested limits and to demonstrate that Shell

is capable of complying with those emission limits." Id at 21. This position fundamentally conflicts with EPA's concession that the Alaska regulations require information on "the effect the ORL will have on the source's PTE." EPA Response at 25.

Without this calculation, required under the plain language of the Alaska regulation, EPA and the public are unaware of the magnitude of the reduction required under the ORL, a calculation which would allow EPA and the interested public to determine whether the limit requires the source to curtail operations to the extent that the project is not viable. The operational restrictions proposed by Shell are questionable at best. NSB Petition for Review at 37-41. Without the information required by Alaska's regulations, the public and the agency have no way to verify these predictions in determining whether the ORL is appropriate and obtainable.

Importantly, this is not an issue that turns on the "resolution of a technical dispute or disagreement." Shell Response at 5. The question is not whether Shell submitted accurate data on PTE in the absence of the ORL. EPA never requested and Shell never provided any of this data. This issue, therefore, is not a dispute about "a difference of opinion of an alternative theory regarding a technical matter." In re Hub Partners, L.P., 7 E.A.D. 561, 567-68 (EAB 1998). The question is simply whether Shell submitted the information required by the regulations. Shell did not do so, and the ORL and PTE calculations are therefore invalid.

3. The Owner Requested Limits are not Practically Enforceable, and the Permits do not Include Adequate Monitoring to Ensure Continuous Compliance.

Shell's ORL are also invalid, because they are not practically enforceable and

because the permits do not require adequate monitoring to determine compliance with the permit conditions. The permits do not contain shot-term verifiable emissions limits and enforceable limits on operation. The monitoring provisions are similarly inadequate to ensure continuance compliance with the limits as required by EPA policy and guidance.

As an initial matter, EPA claims that no commenter raised the issue that the NOx ORL is not practically enforceable or that monitoring is not sufficient. EPA Response at 27. On the contrary, commenters brought these issues before EPA during the public comment period, and EPA addressed them in the Response to Comments.

The NSB provided comments related to the necessity of ensuring that Shell's emissions remain below major source thresholds, including the comment that Shell's estimate of NOx emissions was perilously close to the PSD major source threshold, leaving "little room for error." P. Ex. 9 at 12. NSB also commented that "total emissions can easily exceed 250 tons at any single well if it takes longer than 59 days to drill, heavy ice conditions are encountered, if any of Shells operating restriction assumptions are incorrect, or if a relief well is required." Id. NSB's comments thus generally raise the issue of the enforceability of the NOx limit, observing that a number of factors could result in Shell exceeding the NOx limit.

In addition to NSB's comments, ADEC commented that "the owner or operator needs to present a verifiable way to attain and maintain the PSD avoidance limit for oxides of nitrogen (NOx)." P. Ex. 25 at 2. ADEC stated that "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." Id.

EPA also noted a number of public comments regarding monitoring and enforceability in its Response to Comments under the heading "Comment L-2: Monitoring and Enforcement." P. Ex. 12 at 70. These included the comment that there is "no monitoring on site," and a question about how Shell will handle emissions that are higher than planned or permitted. Id. EPA also indicated that "Commenters raise questions about monitoring and enforcement of the permits," and responded that the permits contain specific recordkeeping, monitoring and reporting requirements. Id. at 71. EPA also states that "NAEC commented that emissions should be monitored * * *." Id. at 72. The issues of enforceability of the permit and the monitoring requirements proposed to ensure that Shell will not exceed its permit limit, and thus the PSD major source threshold, were properly before the agency during the public comment period.

NSB does not dispute that EPA's rules and guidance allow a source that would naturally be a major source for PSD purposes to limit emissions to levels below major source thresholds. 40 C.F.R. § 55.2. The limit must be a "physical or operational limitation on the capacity of a source to emit a pollutant, including air pollution control equipment and restrictions on hours of operations or on the type or amount of material combusted * * *." *Id.* The limits must also be practically enforceable. United States v. Louisiana-Pacific Corp., 682 F. Supp. 1122, 1131-33 (D. Colo. 1987).

As the EPA Administrator has previously explained, traditionally a short term limit on emission rate is coupled with an operational limit to yield a practically enforceable limit on a source's capacity to emit. Order Responding to Petitioners' Request that the Administrator Object to Issuance of a State Operating Permit to Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC, 22-23 (May 2,

2001) (Masada I). One such traditional limit would be a limit on the concentration of NOx in pounds per hour coupled with a limit on hours of operation. Shell's Permits do not contain short term limits on emission rates on any operating parameters. Therefore, Shell's ORL is not what EPA would generally consider an effective limit on Shell's PTE.

In Masada I, EPA relied on direct real time continuous monitoring when finding that the permit limit was a physical or operational limit on PTE. EPA explained:

> Historically, many PTE limits have relied on a short-term emissions limit (e.g., pounds per hour), coupled as necessary with an operational limit (e.g., a limit on hours of operation), which, taken together, limit annual emissions below major source levels. However, in the case of Masada, the PTE limit does not rely on the short-term limit to establish the source as a minor source. Instead, the limit relies on continuous emission monitors (CEMs) to track the total daily emissions from the facility. The emissions must be recorded each day, and must also be added to the total from the previous 364 days to determine an annual emissions total each day (i.e., a rolling cumulative total). If, on any day, this total exceeds the major source size, the source would be subject to a potential enforcement action (including penalties) for being in violation of its title V permit for the entire year, and would need, among other things, to apply for a PSD permit as a major source.

Id. In Masada I, EPA observed that the facility was the first of its kind, and that the facility would employ CEMS to provide real time direct monitoring. Masada I at 23. EPA observed that the use of CEMs avoids any uncertainty in the emissions factors employed in pre-construction emissions estimates. Id. EPA stated:

> In cases like Masada, where the process involves new technology and the facility is the first of its kind, it is unrealistic to expect precise emission factors prior to construction. A strength of this rolling cumulative approach is that it compensates for uncertain emission factors by linking the source's operational constraints to the actual measured emissions, not the emissions factor, which itself often contains inherent uncertainty when applied to an individual case.

Id.

Similarly, the 1989 guidance indicated that the use of CEMs to demonstrate

compliance with an emission limit could be appropriate. P. Ex. 22 at 8. Several of the guidance documents cited by EPA to demonstrate that EPA takes a "flexible, case-by-case" approach to setting PTE limits also indicate that in the absence of short-term emission and operational limits, CEMs or CEMs equivalent monitoring should be used to demonstrate continuous compliance.[8]

In this case, Shell's operations are not the first of their kind. As has been discussed, the exact same equipment has been used to drill exploration wells in the Beaufort Sea. Further, EPA is not requiring that Shell use CEMs to establish compliance with a 365-day rolling limit on actual emissions.

EPA has also not demonstrated that Shell's monitoring is "CEMs alternative." A "CEMs alternative is one that is demonstrated as providing information with the same precision, reliability, accessibility, and timeliness as that provided by CEMs." Memorandum entitled "3M Tape Manufacturing Division Plant, St. Paul, Minnesota," from John Rasnic to David Kee, dated July 14, 1992. CEMs can directly measure pollutant emissions at varying intervals. EPA notes the New Source Performance Standards program requires the use of CEMs that measure emissions every 15-minutes. EPA Response at 30 n. 19. Here, Shell need only calculate its emissions on a weekly basis, rather than continuously, or even daily.

Additionally, EPA points to the stack tests that Shell is required to undertake within 24 days of commencing operation at the first drill site to demonstrate that the

[8] See, e.g., Memorandum entitled "Policy Determination on Limiting Potential to Emit for Koch Refining Company Clean Fuels Project," from John Rasnic to David Kee, dated March 13, 1992 (after concluding that an emission cap to limit potential emit is allowable in specific circumstances, noting that "in accordance with the 1989 potential to emit policy, when an emission limit is taken to restrict potential to emit, some type of continuous monitoring of continuous compliance is necessary," including a CEMs or a CEMs equivalent "that is at least as reliable as a CEM.") (emphasis added); Memorandum entitled "3M Tape Manufacturing Division Plant, St. Paul, Minnesota," from John Rasnic to David Kee, dated July 14, 1992 (same).

monitoring specified in the permit is sufficient. EPA Response at 29, 35. EPA claims that there is virtually no chance that Shell will violate its ORL/PTE limit in those first 24 days of operation, implying that generic emission factors are sufficient for this reason. EPA Response at 35. However, Shell indicates that it can drill an entire hole in 30 days. P. Ex. 1 at 1. Therefore, it is entirely possible that Shell could reach or exceed its permit limit before any stack tests are conducted.

C. EPA Failed to Appropriately Model the Combined Concentrations for the Kulluk and Frontier Discoverer Operating in the Same Area.

EPA has compounded its initial error of issuing multiple minor source permits by failing to consider and model the combined effects of those multiple minor sources in the determining whether the emissions may result in a violation of the NAAQS and present a threat to human health of North Slope residents. Neither Shell nor EPA has addressed this central and critical flaw in EPA's analysis.

As NSB explained in its Petition for Review, the Permits authorize simultaneous operation of the Kulluk and Discoverer on the same lease block as close as 501 meters apart. NSB Petition at 57-58. Shell relied upon background data inputs from 1999 monitoring data BP's Arctic Slope Easter Region monitoring program. P. Ex. 1c at 13. Shell failed to include data from its concurrently operating drill ship in the background data, which renders the analysis fatally flawed. The goal of the modeling required is to demonstrate that the proposed source will not degrade ambient air quality to the point of causing a violation of the NAAQS or a state air quality standard. Viewing each individual drill site in isolation, where the project as permitted allows the contemporaneous operation of multiple drill sites, does not satisfy this purpose. The focus is on modeling impacts, not individual emissions units.

EPA's regulations speak specifically to this issue. 40 C.F.R. Part 41, Appendix W § 9.2.3. In Multi-Source Areas, "[a]ll sources expected to cause a significant concentration gradient in the vicinity of the source or sources under consideration for emission limit(s) should be explicitly modeled." Id. at § 9.2.3(a). "It is envisioned that the nearby sources and the sources under consideration will be evaluated together * * *." Id. (emphasis added). This severity of this oversight is compounded when considering the fact that emissions from both the Kulluk and the Discoverer will contribute significant portions of the NAAQS for NOx, PM10, and Sox. NSB Petition for Review at 56.

For example, the NAAQS for PM10 is 150 $\mu g/m^3$. P. Ex. 12 at 93. For a 24-hour averaging period, the Kulluk will emit 103.2 $\mu g/m^3$. For the same period, the Discovered will emit 84.2 $\mu g/m^3$. Id. Taken together they represent 187.4 $\mu g/m^3$ or approximately a 25% exceedance of the NAAQS. Again, these figures are based only the limited and questionable modeling analysis conducted by EPA. EPA failed to adequately consider or explain how it determined that the Kulluk and Discovered would not violate the NAAQS when considered together. Even the limited information in the record establishes that the combined operations of the two drill ships will, in fact, result in a violation of the NAAQS, resulting in unacceptable risk to the human health of North Slope residents.

EPA, in this case, has taken dramatically inconsistent positions in issuing these permits. On the one hand, EPA states that it is perfectly reasonable to treat separate drill ships as different sources even if they are as close as 501 meters from each other. On the other, however, EPA has failed to model the combined impacts of the multiple

drill ships that it is permitting at the same time. As a result, neither EPA nor the public have an accurate picture of the total impact of these exploration activities on the human health of North Slope residents or the NAAQS.

D. EPA's Public Hearing Schedule and Failure to Provide Requested Information Interfered with Meaningful Public Participation and Failed to Give Effect to the Government-to-Government Relationship with Alaska Native Villages and EPA's Trust Responsibility.

EPA's method of complying with the air permit regulations did not provide NSB residents and Native Alaskan communities a qualitatively "meaningful" opportunity for review and comment. EPA's underlying duty to provide an opportunity for meaningful public participation when issuing air quality control permits, and EPA's trust relationship with the Native Inupiat Alaskan communities in the North Slope Borough, as reflected in Executive Order 13175, should encourage EPA to exercise its discretion to ensure that the affected communities in the NSB have been provided an opportunity to review the permits and supporting materials and express their views on the permitting action to EPA.

In response to NSB's argument that EPA failed to meaningfully include the public in the public comment process and give effect to the government-to-government relationship with Alaska Native Villages and EPA's trust responsibilities, EPA argues that its actions satisfy the Clean Air Act notice and comment requirements and the requirements of Executive Order 13175. The parties do not dispute that EPA satisfied the minimum requirements for public notice and comment under the applicable permitting regulations. NSB Petition at 59, EPA Response at 44, Shell Response at 56. Those regulations, including 40 C.F.R. §§ 124.10(b)(1), 124.12(a), are quantitative in nature. That is, they specify precisely how EPA must provide public notice of its permitting process, how many days a public comment period must remain open and whether and

how EPA must provide a public hearing. Petitioner NSB does not contend that EPA failed to satisfy those precise terms.

As explained in NSB's Petition for Review, EPA's decision to hold a public hearing during the essential Spring subsistence activities and EPA's failure to provide information specifically requested by NSB to review the permits, interfered with the affected communities' abilities to review and comment on the Permits. EPA could have and should have exercised its discretion to satisfy these two requests, and it its EPA's failure to do so that NSB requests that the Board review based on the important policy that federal agencies interact with Alaskan Native communities on a government-to-government basis and give effect to the federal governments' trust responsibility to Alaskan Natives. Thus while EPA satisfied the terms of the air permitting regulations, EPA's trust relationship, as articulated in Executive Order 13175, should strongly counsel EPA to consider the needs of Alaskan Native communities when taking discretionary actions. In this case the Native communities' needs were compelling and the action requested, rescheduling the public hearing and providing the requested documents, were not onerous.

In explaining why it chose not to reschedule the public comment session, EPA said that the decision was based on the information sharing that had already occurred, seasonal conditions on the North Slope, and the national priority of expediting energy related projects. EPA Response at 45-46. In this analysis, EPA did not properly weigh the interests of Alaskan Inupiat Natives in engaging in essential subsistence activities, which implicate EPA's trust responsibility toward federally recognized tribes, as expressed in Executive Order 13175 and agency guidance.

Under the Executive Order 13175, federal agencies are required to "establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have Tribal implications." 65 Fed. Reg. 67249 (Nov. 9, 2000). Policies with tribal implications include:

> regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

Id.[9]

Thus, for agency actions with substantial direct effects on one or more Indian tribes, Executive Order 13175 requires federal agencies to engage in regular and meaningful consultation with tribal officials to respect and strengthen the government-to-government relationship between the federal government and tribal governments.

Region 10's Tribal Consultation Framework ("Framework") defines "consultation" as:

> the process of seeking, discussing, and considering the views of federally recognized tribal governments at the earliest time in EPA Regions [sic] 10's decision-making. Consultation generally means more than simply providing information about what the agency is planning to do and allowing comment. Rather, consultation means respectful, meaningful, and effective two-way

[9] This air permit process implicates Executive Order 13175 because the effects of the permitted action on NSB's Native Alaskan communities are substantial and direct. The Permits authorize Shell to emit hundreds of tons of air pollution each year in areas near NSB tribal communities and in areas that are regularly used for subsistence activities by tribal members. See P. Ex. 8.

Shell argues that Executive Order 13175 does not apply to air permitting as a general matter, relying on EPA's Draft Guidance on Executive Order 13175 ("Draft Guidance"). Shell Response at 58. The Draft Guidance is not binding on the agency, however, and contradicts Executive Order 13175 because it attempts to categorically exempt air pollution permits from requirements that apply to any federal agency "actions that have substantial direct effects on one or more Indian tribes." Permitting new sources of air can, and in this case did, have substantial direct air quality effects on Indian tribes, thus air permits cannot be categorically excluded from the terms of Executive Order 13175. EPA does not join Shell's argument that Executive Order 13175 categorically excludes air permitting from its requirements. EPA recognizes that several presidential and agency directives govern EPA's interactions with tribal governments whose interests are affected by EPA actions. EPA Response at 47.

> communication that works toward a consensus reflecting the concerns of the affected federally recognized tribe(s) before EPA makes its decision or moves forward with its action.

Region 10's Tribal Consultation Framework at 1 (emphasis added). The Framework provides that the first guiding principle for consultation is sensitivity and respect for tribal sovereignty and culture. Id. The Framework also instructs EPA:

> When the matter may directly affect the environment, resources, treaty rights or other legal rights of a specific or small number of federally recognized tribes . . . EPA will provide feedback as specifically requested by the Tribes . . . On specific matters, the Region should contact and provide any available materials necessary to the potentially affected federally recognized tribes as early as practicable, to provide time for consultation prior to making a decision.

Id.

EPA's choices in this permitting action do not satisfy these standards, particularly where, as here, NSB's requests were reasonable and the interests implicated by EPA's choice to hold the public hearing on May 8, are subsistence interests that EPA should guard carefully under its trust responsibility. EPA's action constitutes an exercise of discretion implicating important policy issues that the Board should review.

E. EPA Failed to Conduct an Adequate Environmental Justice Analysis of Potential Disproportionate Adverse Impacts to Inupiat Communities.

EPA has issued permits for multiple drilling operations in a region that is populated primarily by Inupiat Eskimos. Based on the potential impacts to human health resulting from the proposed air emissions, NSB and several community members requested that EPA conduct an adequate environmental justice analysis to determine whether Inupiats would bear a disproportionate risk resulting from the proposed emissions. See, e.g., P. Ex. 12 at 76. In their response brief, both EPA and Shell

conceded that EPA must conduct this analysis. EPA Response at 49; Shell Response at 63.

The record is also clear that EPA did not conduct a comparative analysis of the disproportionate impacts to Inupiat populations. EPA does not dispute this fact, but argues that it "was not required to identify the racial and socioeconomic status of the affected communities or to conduct a specific comparative analysis in this case." EPA Response at 49 (*emphasis added*). According to EPA, this is simply a dispute about the failure to perform a "specific type of calculation." Id. at 50.

EPA's argument is unavailing, because the *sin qua non* of an environmental justice analysis is a comparison between the risks presented to minority populations as compared to an appropriate baseline or reference population. EPA's guidance document for implementing Executive Order 12898 acknowledges the need for comparison in a disproportionate effects analysis. It points out that the terms "disproportionate" and "high and adverse" require a "comparative analysis with the conditions faced by an appropriate comparison population." USEPA, Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses ("EPA EJ Guidance"), Section 2.2.1. The guidance offers specific, practical solutions that EPA could have used to find the most logical baseline population for the North Slope Inupiat communities:

> 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. 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 of an entire county, such as along the Mexican border and in the Mississippi Delta. Id. at Section 3.2.1.

Conceding that EPA failed to conduct any comparative analysis, EPA and Shell instead rest on EPA's determination that the project would not violate the NAAQS. EPA Response at 50-51; Shell Response at 64-65. EPA and Shell misplace their reliance on EPA's NAAQS determination in this case.

As discussed earlier, EPA failed to consider the potential impacts of both the Kulluk and the Discoverer operating at the same time in close proximity to each other. See infra at 24-26. When looking at PM10, its clear even from the limited information provided by EPA that the combined emissions from the Kulluk and Discovered when operating simultaneously will result in a violation of the NAAQS. See infra at 25; P. Ex. 12 at 93. The information in the record directly contradicts EPA's critical assumption that the proposed emissions from both drill ships will not present an adverse risk to the health of North Slope residents. EPA is issuing permits for two separate drill ships that may operate as close as 501 meters apart from each other, yet EPA has failed to consider whether the combined emissions from those drill ships will violate the NAAQS.[10]

[10] Furthermore, EPA's conclusion that compliance with the NAAQS proves that there will be no adverse health effects is incorrect and out-of-date. Most significantly, the NAAQS do not accurately reflect atmospheric conditions on the North Slope, where air pollution dispersion is significantly different from conditions throughout the rest of the country, and where data necessary to carry out conclusive modeling and modeling of pollutant levels is often unavailable. P. Ex. 12 at 77. In addition, the most recent review of the NAAQS for fine particulate matter found that there is no level of particulate matter pollution at which no human health effects occur. According to EPA, fine particulate matter pollution causes a variety of adverse health effects, including premature death, heart attacks, strokes, birth defects, and asthma attacks. 71 Fed. Reg. 2620 (Jan. 17, 2006). In reviewing the fine particulate matter health based ambient air quality standard, EPA was unable to discern a threshold level of pollution under which the death and

Both the Executive Order and EPA Guidance emphasize the importance of considering cumulative effects of multiple sources in conducting an environmental justice analysis. The Executive Order, for instance, states that EPA "shall identify multiple and cumulative exposures." Executive Order 12898 at Sec. 3-301(b). EPA's guidance states that "EPA analysts need to place special emphasis on other sources of environmental stress within the region, including those that have historically existed, those that currently exist, and those that are projected for the future." EPA EJ Guidance at 2.2.2. EPA also states that the analysis should include "[s]ource data, including historical, existing, and projected sources." Id. As this case makes perfectly clear, without considering multiple exposures from multiple sources, the analysis may fail to identify the true risks presented to human health.

CONCLUSION

For the reasons stated above, NSB respectfully requests that the Environmental Appeals Board should accept the petitions and vacate the minor source permits issued to Shell.

Respectfully Submitted,

Christopher Winter

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DATED: August 9, 2007

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disease associated with fine particulate matter would not occur. Studies reviewed by EPA revealed a linear or almost linear relationship between diseases like cancer and the amount of fine particulate matter in the ambient air. Id. at 2635. Consequently, compliance with NAAQS does not necessarily equal protection of human health from adverse effects, since the NAAQS thresholds for particulate matter allow for some particulate matter contamination, and any particulate matter contamination has adverse health effects. Id.

CERTIFICATE OF SERVICE

I, Christopher Winter, certify that on August 9, 2007, I served true and correct copies of

PETITIONER NORTH SLOPE BOROUGH'S REPLY TO EPA REGION 10 AND SHELL OFFSHORE INC.'S RESPONSES TO PETITION FOR REVIEW

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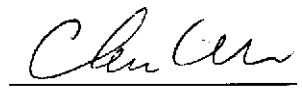

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