

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

IN THE MATTER OF:)	Appeal Nos. PSD 10-03, 10-12/10-04
)	
SHELL OFFSHORE INC.)	PSD Approval Nos.
)	R10OCS/PSD-AK-2010-01
and)	R10OCS/PSD-AK-09-01
)	
SHELL GULF OF MEXICO, INC.)	
)	

**AEWC AND ICAS'S REPLY BRIEF
IN SUPPORT OF THEIR PETITIONS FOR REVIEW**

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INTRODUCTION

Pursuant to the Environmental Appeals Board's June 4, 2010 Order, Petitioners the Alaska Eskimo Whaling Commission (AEWC) and the Inupiat Community of the Arctic Slope (ICAS) (hereafter AEWC or Petitioners) submit the following reply in support of their petitions for review of the Beaufort and Chukchi air permits issued by Region 10 of the Environmental Protection Agency (EPA) to Shell Offshore Inc. and Shell Gulf of Mexico, Inc. (Shell). Docket Nos. 10-03, 10-19. The two air permits should be vacated and remanded to Region 10 in light of the tragic events that are un-folding in the Gulf Mexico and the changed circumstances surrounding these consolidated petitions for review. The President of the United States announced that Shell would not be allowed to explore for oil and gas offshore in the Arctic this summer and the Administration is conducting a review of offshore oil and gas activities. Exhibits 1 & 2 Submitted in Support of Petitioners' Joint Motion to Vacate (Docket No. 31.01).

As Region 10 itself concedes, this review may "affect the equipment necessary for Shell's Beaufort and Chukchi Sea exploratory drilling operations," EPA Response Br. at 13 (Docket No. 44), which in turn would affect the entire underpinning of the air permits. EPA Response to Pending Motions at 9-10 (Docket No. 49) ("DOI's actions could lead to underlying changes in Shell's use of the Discoverer and/or the specific operational design of the project, which would change the facts underlying these issues on appeal, which would in turn affect the weight and/or scope of the arguments made by the Petitioners and the Board's consideration of them."); *id.* at 10 ("any alteration to the specific operational design of the equipment regulated under these permits could affect other aspects of those permits"). While Shell argues that the petitions for review raise legal issues that the Board should resolve, Shell Response to Motion to Vacate at 6-8 (Docket No. 30), this is simply a statement of the obvious. Of course, the petitions

raise legal issues but they arise in the context of the factual underpinnings of the two permits, *see* EPA Response to Pending Motion at 9-10 (Docket No. 49) (making this same point), which are now embroiled in a review resulting from the greatest environmental disaster in this country to date.

If the Board elects not to vacate and remand the permits to Region 10 in light of the Administration's decision to undertake a review of Shell's operations, it should nevertheless send the two permits back to the agency because Petitioners have demonstrated clear legal and factual errors and otherwise raised compelling arguments for vacating the permits. Region 10 committed clear legal error by failing to include the emissions from routine and planned oil spills in the potential to emit. The agency committed clear legal error by failing to conclude that the drill ship's propulsion engine, the icebreaker/anchor handler, and the rest of the associated fleet are not part of the OCS source as defined in EPA's regulations. Region 10 also committed clear legal error by failing to apply or otherwise grapple with the statutory definition of OCS source in deciding which aspects of Shell's operations would be regulated by a best achievable control technology (BACT) analysis.

The agency also failed to ensure that the PM_{2.5} monitoring data required by EPA's regulations was provided by Shell and failed to address the secondary formation of PM_{2.5} in clear violation of the law. Region 10 failed to ensure compliance with updated legal requirements for NO₂ and CO₂ and to conduct an adequate environmental justice analysis. For all these reasons, AEWC requests that the Board vacate and remand the permits to Region 10.

ARGUMENT

I. IT WAS CLEAR LEGAL ERROR FOR REGION 10 NOT TO COUNT THE EMISSIONS FROM PLANNED, ROUTINE ASPECTS OF SHELL'S OPERATIONS IN ITS POTENTIAL TO EMIT.

The events unfolding in the Gulf of Mexico make very real the concerns that AEWG and ICAS have long raised with oil spills in the Arctic. The review being undertaken of offshore oil and gas activities, in light of the difficulties in halting the eruption of oil in the Gulf and of cleaning up that oil, is as relevant to operations in the Gulf of Mexico as it is to operations in the Arctic. As Region 10 explains:

evidence that describes other conditions affecting operations in Arctic waters that could be also relevant to DOI's review, such as the generally harsh and remote Arctic conditions requiring use of specialized vessels and other equipment, the regular presence of ice in the drilling areas, and the very limited infrastructure on the Alaska North Slope. *See generally* Petroleum News Article, EPA Ex. 89 at B005452, 5469-5470 (describing how drilling further north in the Arctic OCS requires innovations and modifications in drilling safety equipment); Shell January 18, 2010 Beaufort Application, EPA Exhibit AA-1 at AA000038 (explaining that ice floe frequency and intensity are unpredictable in the Beaufort Sea and could range from no ice to ice sufficiently dense so that Shell's fleet would have insufficient capacity to manage the ice floe such that the Discoverer would need to disconnect from its anchors and move off site) and Appendix L at AA000435-438 (Beaufort Sea Ice Statistics); 2010 Outer Continental Shelf Lease Exploration Plan Appendix H at 158-159 and 167-168, AR EPA Ex- EE-1 (providing information about the limited infrastructure on the North Slope of Alaska, including "limited offshore and coastal infrastructure in the immediate vicinity of [Shell's] proposed project area"; "a need for more emergency dispatch radio connections and improved communications"; and a lack of "traditional road access"); North Slope Communications Protocol, AR EPA Ex. G-6 at G-00041-41 (providing description of "Travel to the North Slope" that highlights the remoteness of the area and the limited services available). *See also* Attachment A, Nick Jans, *BP Tragedy Gives Us Pause Here in Alaska*, USA Today, June 8, 2010 at 9A (discussing difficulties of drilling in the Arctic). Accordingly, without the benefit of DOI's review, EPA Region 10 does not believe it is appropriate to assume that "Shell's well designs are sound and its oil spill prevention and response plans are exemplary" such that DOI will not require changes to their operations. Shell Opp'n at 5.

EPA Response to Pending Motions at 10-11 n.4 (Docket No. 49). Region 10 further acknowledges that as a result of its review “DOI could require additional emergency response vessels, impose additional requirements regarding location of response vessels relative to the drill ship, or require changes to the well shut-in process, each of which could result in emissions that EPA Region 10 would need to analyze in light of CAA permitting requirements.” EPA Response to Pending Motion at 8 (Docket No. 49). Moreover, in light of current events, Region 10 acknowledges that it is:

responding to Petitioners’ concerns regarding consideration of oil spill response related emissions based on the record before Region 10 when it issued these permits. Nevertheless, current events and future actions by the Administration could necessitate a change in this response

EPA Response Br. at 13 (Docket No. 44). It is clear that how we view oil spills and whether they are a core component of exploration is evolving and as Region 10 concedes may “necessitate a change” in the agency’s response to Petitioners’ contention that these emissions need to be included in the potential to emit. *Id.* For this reason, we ask that the Board remand on this issue for further consideration.¹ If the Board reaches the merits of AEW’s claim, Petitioners also provide a response to Region 10’s arguments.

Region 10 provides two primary defenses to AEW’s point that the emissions from cleaning up an oil spill must be included within Shell’s potential to emit. Neither of these defenses overcomes the plain language of EPA’s regulations that define potential to emit as

¹ In that event, the factual underpinnings of any future air permits issued to Shell would be entirely different and the issues raised by AEW in its Petitions for Review would also change. For example, if the permits are set aside, Shell would have to demonstrate compliance with the new NO₂ NAAQS that was adopted on February 9, 2010 and took effect on April 12, 2010. 75 Fed. Reg. 6,474 (Feb. 9, 2010). Additionally, EPA would have to determine how Shell’s reconfigured operations trigger the definition of OCS source, presumably Shell could submit adequate particulate matter data in support of its new applications, and, assuming all of this took at least six months, a BACT analysis for CO₂ would also have to be prepared.

including “the maximum capacity of a stationary source to emit a pollutant under its physical and operational design,” 40 C.F.R. § 52.21(b)(4), including the emissions from the “vessels servicing or associated with an OCS source.” *Id.* § 55.2. Nor do Region 10’s arguments overcome the fact that an oil spill response plan is a necessary component of offshore exploration and that Shell’s clean-up and response plans are well documented and rehearsed. 30 C.F.R. § 250.219(a)(Oil Spill Response Plan requirements including a “description of worst case discharge scenario”); *id.* § 220(a) (requiring OCS operators to describe “their emergency plans to respond to a blowout, loss or disablement of a drilling unit, and loss of or damage to support craft”); 30 C.F.R. part 254; *see also* EPA Beaufort Stmt of Basis at NN000132 (AR NN10) (“In preparation for a potential spill, the oil spill response (OSR) fleet will conduct frequent drills”).

Region 10 first argues that an oil spill is an emergency or upset condition that is not considered in the potential to emit calculation. EPA Response Br. at 89 (Docket No. 44). Region 10 cites to 40 C.F.R. part 51 appendix W, section 8.1.2 note a to support its argument. That footnote states:

Malfunctions which may result in excess emissions are not considered to be a normal operating condition. They generally should not be considered in determining allowable emissions. However, if the excess emissions are the result of poor maintenance, careless operation, or other preventable conditions, it may be necessary to consider them in determining source impact.

40 C.F.R. part 51 appendix W, section 8.1.2 n.a. This footnote expressly requires consideration of emissions when those emissions result from “poor maintenance, careless operation, or other preventable conditions.” *Id.* These are all common factors that lead to oil spills. *See e.g.*, NOAA, Oil Spill Primer (available at: http://oceanservice.noaa.gov/education/stories/oilymess/supp_primer.html) (last visited June 11, 2010). Indeed, EPA’s “longstanding policy” on such emissions “makes clear that excess emissions resulting from malfunctions are violations of the

Clean Air Act, for such emissions can interfere with attainment of the national air standards.” *Ariz. Pub. Serv. Co. v. United States EPA*, 562 F.3d 1116, 1129 (10th Cir. 2009) (citing 72 Fed. Reg. 25,702, 25,705 (May 7, 2007)). As EPA’s 1983 memoranda on this topic explains, “any activity which can be foreseen and avoided, or planned is not within the definition of a sudden and unavoidable breakdown,” and it is only sudden or unavoidable breakdowns that EPA does not penalize under the Act. Memorandum from Kathleen M. Bennett to Regional Administrators re: Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions (Feb. 15, 1983). Oil spills are foreseen and planned for in the OCS. *See* 30 C.F.R. § 250.219 (explaining the “oil and hazardous substance spills information” that must accompany an exploration plan); *id.* § 250.219(a)(1) (requiring submission of an “oil spill response plan” “for the facilities [the applicant] will use to conduct [] exploration activities”); *see also id.* part 254 (describing the specific requirements for oil spill response plans). Therefore, these emissions must be included within the potential to emit.²

Moreover, as a result of this planning and the rehearsal of clean-up efforts, the emissions from cleaning up oil spills are not as “speculative” as Region 10 suggests. EPA Response Br. at 89 (Docket No. 44). For example, Shell’s Chukchi oil discharge prevention and contingency plan (ODPCP) contains several “worst case” discharge scenarios (including one for adverse weather), an in-situ burning plan, and several scenarios for clean-up plans. *See* Shell, Chukchi ODPCP at MMS-2, 1-55-1-69, 1-90-1-91, 3-24, 3-32 (AR K16).³ These are detailed plans. The

² Region 10 cites to the Board’s ruling on Shell’s 2007 permit, EPA Response Br. at 90 (Docket No. 44), to argue that the Board has already rejected the need to consider drilling a relief well in the potential to emit. However, the issue in the 2007 permit challenge was the impact of owner requested limits under Alaska’s regulations on the potential to emit and not the issue presented by AEWC here.

³ While AEWC submitted this entire document with its comments, it does not appear to have been produced in the record. *See* K16 at Attachment 13 (noting to request ODPCP from

scenario for cleaning up a spill in the summer lists the equipment that would be used, the approach Shell would take for collecting oil, and otherwise provides sufficient information for Region 10 to model the emissions that would result during such a clean-up operation. *Id.* As a result, these are not speculative emissions but rather well planned operations that can be modeled and accounted for during air permitting.

Of course, if an event occurred like the one on-going in the Gulf of Mexico where the clean-up did not proceed as planned, EPA could monitor the clean-up operations and enforce the Clean Air Act as appropriate. Such a worst case scenario where oil spill response plans fail cannot be planned for by the agency. But the possibility of such catastrophes occurring should not foreclose oil and gas companies from having to include the emissions from their planned oil spill response activities in their potential to emit calculations.⁴

II. REGION 10 COMMITTED CLEAR LEGAL ERROR IN DETERMINING WHAT CONSTITUTES THE OCS SOURCE.

Region 10 committed a clear legal error in concluding that the propulsion engine of the Discoverer, the icebreaker, and the rest of the ancillary fleet are not part of the OCS source as defined by EPA at 40 C.F.R. § 55.2 and Congress in section 328, 42 U.S.C. § 7627(a)(4)(C). Additionally, based on the Administration's review of offshore oil and gas activities it may be that Shell never employs the current configuration of vessels that are discussed in its permit applications and in the two permits. If different vessels are employed, such as a second drill ship, or if the Administration changes the requirements for the oil spill response fleet (*e.g.* by

EPA). The Plan is also available on-line at:
http://www.mms.gov/alaska/ref/ProjectHistory/2009_Chukchi_Shell/2009_0623_Shell_cplan.pdf
(last visited June 15, 2010).

⁴ While detailed, well-rehearsed plans exist for responding to oil spills, this does not negate the fact that human error often is the cause of such spills.

adding additional vessels or changing the location of vessels), then the factual situation presented by these permits may never be played out in the real world. For these reasons, Petitioners respectfully request that the Board remand the permits to Region 10.

A. Region 10 Misapplied The Regulatory Definition Of OCS Source.

As Petitioners demonstrated in their Petitions for Review, Region 10's decision to impose an extra requirement beyond the regulatory definition of OCS source at 40 C.F.R. § 55.2 resulted in an erroneous legal interpretation. AEWB Beaufort Pet. at 14-17 (Docket No. 19); AEWB Chukchi Pet. at 15-18 (Docket No. 3). The regulation provides that an OCS source is “[p]ermanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring” 40 C.F.R. § 55.2. As Region 10 admits, it originally interpreted the regulation to mean that the drill ship the Discoverer is an OCS source once it drops an anchor. *See* EPA Response Br. at 15-17 (Docket No. 44). Yet in the final permits, the agency decided that the Discoverer is an OCS source only after Shell unilaterally declares that it is secure and ready for drilling. Beaufort Permit at PP000169 (AR PP1); Chukchi Permit at L0005 (AR L1).

Region 10's new final position on when the Discoverer is an OCS source is contradictory to the agency's own conclusions and was never adequately explained by the agency. Region 10 explains that it “does not agree that all eight anchors must be attached for the Discoverer to be an OCS source” Chukchi RTC at L000083 (AR L2). Nevertheless, the agency defines the Discoverer as an OCS only after Shell declares that it is secure and ready for drilling, *see* Chukchi Permit at L0005 (AR L1); Beaufort Permit at PP00169 (AR PP2), which according to Shell is when all eight anchors are in place. *See* Shell Revised Permit Application at AA000051-53, AA0000131 (AR AA1). Therefore, in adopting its present interpretation of the regulatory definition of OCS source, Region 10 contradicted itself without explanation. For this reason, the

current interpretation of the regulatory definition of OCS source should be remanded to the agency for further explanation. *In re: Deseret Power Electric Cooperative*, PSD Appeal No. 07-03, slip op. at 62 (EAB Nov. 13, 2008), 14 E.A.D. ___ (agencies are “obligated to supply a reasoned” analysis (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983))).

Region 10 also did not provide a rationale explanation for its change in position. The agency hinges much of its argument on the three criteria in the regulatory definition and the inclusion of the words “erected thereon.” EPA Response Br. at 17-20 (Docket No. 44); *see also* Shell Response Br. at 36-38 (Docket No. 45) (making a similar argument). This argument is in error for two reasons. First, the agency’s current application of this phrase to drill ship exploration is erroneous. One primary distinction between drill ship exploration and platform exploration is the fact that drill ships are constructed before they leave port while other drilling mechanisms, such as the jack-up rig discussed by Region 10, EPA Response Br. at 17 (Docket No. 44), have to be constructed or “erected” at the drill site. When this distinction in drilling tools is taken into account it is clear that the regulatory language requiring the source to be “[p]ermanently or temporarily attached to the seabed and erected thereon and used for the purpose of exploring,” 40 C.F.R. § 55.2, had both forms of exploration in mind. Thus, once a drill ship arrives at the drill site and drops an anchor it is both attached to the seabed and erected thereon. In contrast, once a platform arrives at the site it still must be erected thereon.

Indeed, EPA’s original interpretation of when the Discoverer becomes an OCS source – *i.e.*, when it sets one anchor – comports with this understanding of the regulatory definition. *See* EPA Response Br. at 15-16 (explaining the agency’s original position). This interpretation is mirrored in the preamble to the regulatory definition of OCS source to which EPA cites. *See* 57

Fed. Reg. 40,793, Preamble at B000825 (B-13) (“Vessels therefore will be included in the definition of ‘OCS source’ when they are ‘permanently or temporarily attached to the seabed’ and are being used ‘for the purpose of exploring, developing or producing resources therefrom.’ This would include, for example, drill ships on the OCS”).

Second, Region 10’s reliance upon the preamble to the regulatory definition of OCS source further demonstrates the error of its current interpretation. EPA did not develop the language in the regulatory definition of OCS source itself but took these words from a provision in the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. § 1333(a)(1), in which Congress applied federal and state law to the OCS. *See* 57 Fed. Reg. 49,792, 49,793 (Sept. 4, 1992), Notice at B000825 (AR B13). This provision was amended in 1978 to ensure that platforms constructed outside the United States and erected on the OCS were subject to U.S. customs laws. H.R. Conf. Rep. 95-1474 at 81, reprinted in 1978 U.S.C.C.A.N. 1674, 1679. In making this amendment, Congress clarified that “federal law is to be applicable to all activities on all devices in contact with the seabed for exploration, development, and production.” H.R. Conf. Rep. 95-1474 at 81, reprinted in 1978 U.S.C.C.A.N. 1674, 1679.

Region 10 and Shell also argue that the drillship must be “secure and stable” at a drillsite to be considered an OCS source, because otherwise the drillship could be considered an OCS source in different instances when it has “a single anchor down.” EPA Response Br. at 18 (Docket No. 44). However, this argument ignores the plain language of the regulation that only requires vessels to be “used for the purpose of exploring,” 40 C.F.R. § 55.2, and not that the vessel is “fully anchored,” “ready to drill,” or “stable and secure” in order for it to be considered to be an OCS source. Indeed, adding the requirement that the vessel must be ready to drill would

be contrary to the notion that PSD permits cover pre-construction activities.⁵ For these reasons, Region 10's interpretation of the meaning of OCS source is not entitled to deference, because it was unreasonable. The agency's contradictions in its statements demonstrate it has *not* reached a reasonable conclusion to which the Board can defer. Nor should the agency's attempt to add the requirement that the drill ship be "secure and stable" before being regulated under the Clean Air Act be sanctioned by the Board. *In re: Arecibo & Aguadilla Regional Wastewater Treatment Plants* 12 E.A.D. 97, n.60, 130 NPDES Appeal Nos. 02-09 & 03-05 (March 10, 2005) ("if language is plain and unambiguous it must be given effect").

1. The decision that the drill ship's propulsion engine is not part of the OCS source is a clear legal error.

With respect to the propulsion engine on the Discoverer, AEWG demonstrated that it falls within the regulatory definition. AEWG Beaufort Pet. at 14-18 (Docket No. 19); AEWG Chukchi Pet. at 14-18 (Docket No. 3). Region 10's primary defense for declining to undertake a BACT analysis for the Discoverer's propulsion engine is the agency's decision to not regulate this engine at all under the Clean Air Act. EPA Response Br. at 22-23 (Docket No. 44); Beaufort Permit at PP00197 (AR PP2); Chukchi Permit at L0019 (AR L1). Indeed, Region 10 goes so far as to argue that it has controlled this unit, EPA Response Br. at 22-23 (Docket No.

⁵ In its comments on the permits, AEWG raised concerns that Region 10 was not applying the OCS program consistently with its application of the PSD program, because the agency excluded certain preconstruction activities from the definition of OCS source. *See* AEWG, *et al.* Comments at OO00171 (AR OO21). Region 10 failed to address this concern in responding to comments. In its response to AEWG's petitions for review, Region 10 points to its response to comments on the Chukchi air permit as providing a response. EPA Response Br. at 21 n.8 (Docket No. 44) (citing Chukchi RTC at L000077-78 (AR L2)). However, the portion of the response to comments to which Region 10 cites says nothing about pre-construction activities, and the statutes and caselaw pertain to a different topic. Therefore, because Region 10 failed to address this issue in responding to comments the permits should be sent back to the agency. *Kulluk*, slip op. at 18 (remanding a permit because Region 10 provided "no record foundation . . . other than a brief statement in its Response to Comments that [was] unsupported by facts or analysis in the record").

44), when in fact all the agency has done is require Shell not to use it once the Discoverer is deemed an OCS source. This is hardly “regulation” of the emissions from this engine, which will be used: to move the drill ship to the drill site; during anchoring; moving between drill sites; and otherwise while the Discoverer is authorized under OCSLA and located in the waters above the OCS.

Indeed, the decision to not allow Shell to use the propulsion engine was the source of controversy during the comment period, since MMS called this provision into question because it poses safety concerns. MMS Comments at I000159 (AR I39). The failure of Region 10 to require calculation of the emissions from the drillship’s propulsion engine and a BACT analysis, does not comport with the purpose of section 328. 42 U.S.C. § 7627(a) (purpose of regulating OCS sources is to control air pollution, attain and maintain ambient air quality standards, and comply with the PSD program). Therefore, Region 10’s decision should be remanded.

2. Region 10’s decision that the icebreaker/anchor handler is not part of the OCS source was clear legal error.

In concluding that the Discoverer is not an OCS source until it is secure and stable, Region 10 ensured that the icebreaker that handles that Discoverer’s anchors and helps with mooring is also not regulated as part of the OCS source. *See* AEWB Beaufort Pet. at 18-22 (Docket No. 19); AEWB Chukchi Pet. at 18-22 (Docket No. 3). The icebreaker readily meets the regulatory definition of OCS source because it is attached to the Discoverer during anchoring.

Region 10’s response to this argument is that EPA only intended to include “vessels used to transfer production from an offshore facility,” to be “consistent” with the OCSLA regulations. EPA Response Br. at 24 (Docket No. 44) (citing 57 Fed. Reg. at 40,793; 30 C.F.R. § 250.2). However a whole host of vessels are authorized under OCSLA that have nothing to do

with the actual production of hydrocarbons. *See e.g.*, 30 C.F.R. § 224(a) (“crew boats, supply boats, anchor handling vessels, tug boats, barges, ice management vessels, other vessels, offshore vehicles, and aircraft” “that support [the] exploration activities”); *id.* § 213(g) (“availability of a rig to drill a relief well”); *id.* § 219(a)(2)(ii) (“location of [] primary oil spill equipment”).

Indeed, at the exploration stage lease holders are foreclosed from producing oil or gas but this does not mean that other vessels are not attached to the drillship during exploration. Region 10’s regulation of the supply vessel – when attached to the Discoverer – undermines this justification for not regulating the icebreaker.

Region 10 also relies on its intent to be “consistent with the PSD requirements for marine terminals” to justify its failure to regulate the anchor handler. EPA Response Br. at 24 (Docket No. 44); *see also* Shell Response Br. at 41 (Docket No. 45) (making a similar argument).

However, this argument only supports Petitioners’ position. A vessel connected to a marine terminal via ropes and an icebreaker connected to a drill ship by an anchor line, are analogous.

While the propulsion engine of the icebreaker is a great concern, since the icebreakers account “for more than 90 percent of PM_{2.5} emissions (and over 85 percent of NO_x emissions),” AEWG *et al.* Chukchi Comments at K00247 (AR K16), it is not the only engine running during anchor handling. As Shell’s consultant clarified, the generator, heat boiler, and incinerator are also operating during this time. Email from Kirk Wings to Herman Wong at A001196 (AR A26). Even these engines are not being regulated as part of the OCS source. The regulation of the icebreaker’s emissions pursuant to a BACT analysis is critical, but it is also important that the anchor handler’s emissions during the mooring process are included in the potential to emit. Region 10 raised concerns that even a minor increase in emissions “might push emissions over the criteria.” Email from Kirk Wings to Herman Wong at A001195 (A26). Presumably, this is

because “[a]ccording to Shell, the operation of setting or retrieving the anchors could take as much as 18 hours to complete.” *Id.*

Region 10 argues that with respect to the icebreakers and other vessels that when EPA wrote the OCS regulations it did “not believe it had authority to, regulate mobile source activities” EPA Response Br. at 25 (Docket No. 44). However, this is not accurate. EPA noted in the 1992 preamble to the regulatory definition that “[i]f the mobile source emissions of vessels are regulated under future regulations developed pursuant to title II of the Act, the OCS rule will be revised accordingly.” 57 Fed. Reg. 40,794, Preamble at B000826 (B-13). Therefore, at the time EPA promulgated the OCS regulations it realized that vessels emissions could and should be regulated under the OCS program. This comports with the congressional conclusion that section 328 requires consideration of emissions from vessels associated with an OCS source to be “part of the OCS facility emissions for the purposes of regulation.” S. Conf. Rep. No. 136, 101st Cong., 2d Sess. at S16983 (1990). The piecemeal control of some of the icebreaker’s emissions to ensure compliance with the NAAQS, EPA Response Br. at 25-26, is not the same as the actual regulation of these emissions pursuant to a BACT analysis as required for OCS sources.

B. Region 10 Committed Clear Legal Error By Failing To Address And Ensure Compliance With The Statutory Definition Of OCS Source.

The Board has before it the first two major source OCS permits that were approved by EPA. It is without question that these permits, therefore, raise legal questions of first impression regarding EPA’s OCS program, as well as important policy considerations especially in light of what we are learning from the events that are transpiring in the Gulf of Mexico. For these reasons AEWEC respectfully submits the Board should reach the statutory argument presented here. Region 10 even concedes that “an EPA Regional Administrator’s implementation of a regulation older than 60 days can be judicially reviewed” under certain circumstances. EPA

Response Br. at 32 (Docket No. 44). Nevertheless, Region 10 urges the Board not to address these issues. EPA Response Br. at 28-31 (Docket No. 44). Because Region 10 failed to address the disconnect between the broad statutory definition of OCS and the limited regulatory definition of OCS source in approving the two air permits, it rendered a decision that is entirely contrary to the plain language of the statute and congressional intent.

1. The EAB can review Region 10's application of the regulatory definition for consistency with the statute as applied to these two permits.

The Clean Air Act provision on judicial review in section 307 contains two exceptions to the general requirement that judicial review occur within 60 days of the promulgation of a regulation. The first exception is for “locally or regionally applicable” final actions and the second is for “grounds arising after such sixtieth day.” 42 U.S.C. § 7607(b)(1). Both these exception apply here. As the Seventh Circuit explained in addressing this provision:

Just as in *Bethlehem Steel*, it makes no sense to require the IL-EPA to have challenged the set-aside regulation in 1982 when it was unsure of what impact, if any, the regulation would have on it in the future. Although the IL-EPA may have disagreed with the reallocation regulation at the time of its promulgation, it was not harmed by the regulation until the US-EPA applied the set-aside provision and denied grant funding to the IL-EPA.

Illinois EPA v. United States EPA, 947 F.2d 283, 288-289 (7th Cir. 1991) (citing *Bethlehem Steel Corp. v. Gorsuch*, 742 F.2d 1028, 1033 (7th Cir. 1984)).

Similarly here, AEWC should not have been expected to challenge the regulatory definition of OCS source in 1992 when it was “unsure of what impact, if any, the regulation would have on it in the future.” *Id.* Additionally, as the statute acknowledges, there will be instances of local or regional applicability, and the requirement that offshore exploration in the Arctic includes icebreakers is one such example of how Arctic operations raise different issues than other offshore exploration. Congress did not intend to foreclose review in instance of local

or regional applicability or when the issue comes up beyond the sixtieth day, as Region 10 suggests the Board should do here.

Region 10 also argues that the regulatory definition of OCS source was upheld in *Santa Barbara County Air Pollution Control Dist. v. United States EPA*, 31 F.3d 1179, 1180 (D.C. Cir. 1994), so that the Board should not grapple with the application of the regulation to Shell's operations here. In so doing, Region 10 cites, *Puerto Rican Cement Co. v. EPA*, 889 F.2d 292, 299 (1st Cir. 1989), to argue that AEWC is foreclosed from challenging the application of the regulation here. However, *Puerto Rican Cement*, is distinguishable because there the company seeking to challenge the regulation through its application to the company's permit had "not tried to intervene in th[e] suit [challenging the regulation] (which [wa]s still pending)." Again, here, there was no way for AEWC to know what vessels would be used to explore for hydrocarbons offshore in the Arctic in 1994 when the regulatory definition of OCS source was challenged in the D.C. Circuit. *Santa Barbara County Air Pollution Control Dist. v. United States EPA*, 31 F.3d 1179, 1180 (D.C. Cir. 1994).⁶

⁶ AEWC is also obliged to raise these concerns to EPA and in this forum to be able to preserve them for potential judicial review. Courts have long allowed challenges to the application of a regulation beyond the statute of limitations. *See Cellular Telecomms. & Internet Ass'n v. FCC*, 330 F.3d 502, 509 (D.C. Cir. 2003) (plaintiff may challenge regulation as applied, irrespective of whether it may challenge the regulations across-the board); *Dunn-McCampbell Royalty v. Nat'l Park Service*, 112 F.3d 1283, 1289 (5th Cir. 1997) ("[i]t is possible, however, to challenge a regulation after the limitations period has expired, provided that the ground for the challenge is that the issuing agency exceeded its . . . statutory authority" and the plaintiff can "show some direct, final agency action involving the particular plaintiff within six years of filing suit").

2. EPA erred by not following or grappling with the statutory definition of OCS source in the Clean Air Act.

The Clean Air Act defines an OCS source as “any equipment, activity, or facility which: (i) emits or has the potential to emit any air pollutant, (ii) is regulated or authorized under the Outer Continental Shelf Lands Act [], and (iii) is located on the Outer Continental Shelf or in or on waters above the Outer Continental Shelf.” 42 U.S.C. § 7627(a)(4)(C). The Act makes clear that “emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source.” *Id.* Nevertheless, many of the emissions from Shell’s operations are un-regulated by a BACT analysis including those from vessels that are servicing or associated with the operations while at the source or within 25 miles.

Region 10 attempts to convince the Board that this issue was decided in the *Santa Barbara* case. EPA Response Br. at 30-31 (Docket No. 44). The agency argues that Petitioners misconstrue the holding in *Santa Barbara* because it dealt with vessels in transit and not banana boats. *Id.* However, Region 10 cannot cite to the briefing from that case to successfully re-write the court’s decision. The court addressed only whether the EPA was reasonable to exclude the very broad category of “vessels merely traveling over the OCS.” *Santa Barbara*, 31 F.3d at 1181. The court found that “the County’s position would be unassailable if vessels in transit were unambiguously included within the definition of OCS source.” *Id.* The court then noted that the statutory definition mentions vessels in only two contexts, one of which is “drill ship exploration” and the other of which is “any vessel *servicing or associated with* an OCS source.” *Id.* Thus, *Santa Barbara* fails to support Region 10’s position that it can to exclude vessels that are part of drill ship exploration from undergoing a BACT analysis. Shell’s proposed operations include a large number of vessels that are intrinsic to Shell’s exploration as authorized under

OCSLA. *See* Beaufort Stmt of Basis at NN000131 (AR NN10); Chukchi Stmt of Basis at J00069 (AR J2). It is these vessels that must undergo a BACT analysis by EPA.

Region 10's reliance on the preamble to the regulatory definition also shows the error in the agency's interpretation and why it was necessary for the agency to address the statutory definition here. Unfortunately, in the preamble EPA mis-quoted the provision from OCSLA upon which the agency's regulatory definition is based. *See* 57 Fed. Reg. 40,792, 40,793 (Sept. 4, 1992), Notice at B000825 (AR B13). The quoted provision does not apply to the Department of Interior or delineate the agency's jurisdiction under OCSLA as EPA states in the preamble. *Id.* Rather, this provision establishes that federal and state laws will apply on the OCS. *See* 43 U.S.C. § 1333(a)(1) ("The Constitution and laws and civil and political jurisdiction of the United States are hereby extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands, and all installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for . . . resources"). Specifically, the provision was included in OCSLA to clarify that federal and state law instead of "admiralty law" applied on the OCS. *See Rodrigue v. Aetna Casualty & Surety Co.*, 395 U.S. 352, 355 (1969) (explaining that "[t]he Lands Act makes it clear that federal law, supplemented by state law of the adjacent State, is to be applied to these artificial islands as though they were federal enclaves in an upland State. This approach was deliberately taken in lieu of treating the structures as vessels, to which admiralty law supplemented by the law of the jurisdiction of the vessel's owner would apply.").

Of course, in the Clean Air Act, in defining OCS source, Congress did not refer to section 1333 of OCSLA. Instead, the statutory language includes "any equipment, activity, or facility . . . regulated or authorized under the Outer Continental Shelf Lands Act." 42 U.S.C. § 7627

(emphasis added). Congress chose not to limit EPA's jurisdiction as set out in section 1333 of OCSLA choosing instead to extend EPA's jurisdiction to all equipment, activities and facilities authorized under OCSLA. This includes, for example, exploration activities meaning "the process of searching for minerals, including (1) geophysical surveys where magnetic, gravity, seismic, or other systems are used to detect or imply the presence of such minerals, and (2) any drilling" 43 U.S.C. § 1331(k); *see also id.* § 1331(l)-(m) (defining production and development). Pursuant to MMS's regulations this includes the authorization of "crew boats, supply boats, anchor handling vessels, tug boats, barges, ice management vessels, other vessels, offshore vehicles, and aircraft" "that support [the] exploration activities." 30 C.F.R. § 224(a); *id.* §§ 213(g) ("availability of a rig to drill a relief well"); 219(a)(2)(ii) ("location of [] primary oil spill equipment"). EPA has never explained why it relied on the language in the OCSLA provision clarifying that federal law instead of admiralty law applies to the OCS instead of the OCSLA provisions that regulate and authorize equipment, activities, and facilities as indicated by the plain language of the Clean Air Act.

Nor in writing section 328 did Congress draw the distinction between vessels operating as OCS sources and those operating as vessels that Region 10 wishes it had drawn. EPA Response Br. at 21 (Docket No. 44). Instead, Congress made it clear that an OCS source includes "any equipment, activity, or facility which (i) emits or has the potential to emit any air pollutant, (ii) is regulatory or authorized under [OCSLA], and (iii) is located on the Outer Continental Shelf or in or on waters above the Outer Continental Shelf." 42 U.S.C. § 7627(a)(4)(C). The legislative history for this provision, which EPA and Shell fail to address, further evidences congressional intent that emissions from vessels associated with an OCS source "including those from crew and supply boats, construction barges, tugboats, and tankers,"

are considered to be “part of the OCS facility emissions *for the purposes of regulation.*” S. Conf. Rep. No. 136, 101st Cong., 2d Sess. at S16983 (1990) (emphasis added).

In light of the fact that these are the first major source air permits issued for the Arctic and that they present unique factual circumstances that do not normally arise in other environs, it was arbitrary for Region 10 not to address the statutory language in this situation. Additionally, as AEWC Petitioners demonstrated in their petitions, AEWC Beaufort Petition at 31 (Docket No. 19); AEWC Chukchi Petition at 30-31 (Docket No. 3), Region 10 failed to adequately respond to Petitioners’ comments on this point, choosing instead to deny that Petitioners can challenge the application of the regulatory definition to Shell’s operations. For this reason, the permits should also be remanded to the agency.

III. REGION 10 COMMITTED CLEAR LEGAL ERROR BY FAILING TO ENSURE SHELL PROVIDED THE REQUIRED INFORMATION ON PM_{2.5} AND BY FAILING TO PERFORM A BACT ANALYSIS FOR EACH DIAMETER OF PARTICULATE MATTER EMITTED BY SHELL.

A. Region 10 Committed Clear Legal Error By Failing To Ensure Compliance With Its Own Regulations With Respect To The Collection Of PM_{2.5} Background Data.

In approving the two air permits, Region 10 failed to ensure compliance with its own regulations. *See* AEWC Beaufort Pet. at 32-39 (Docket No. 19); AEWC Chukchi Pet. at 32-40 (Docket No. 3). The Beaufort air permit is based upon less than four months of PM_{2.5} monitoring data. EPA Beaufort Stmt of Basis at NN00229 (AR NN10) (explaining the PM_{2.5} data was collected between August 20, 2009 and December 15, 2009). This violates 40 C.F.R. § 52.21(m)(1)(iv), which requires “continuous air quality monitoring data” gathered over “at least” “*four months.*” *Id.* (“continuous air quality monitoring data that is required shall have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application, except that, if the Administrator determines that a complete and adequate

analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months), the data that is required shall have been gathered over at least that shorter period.”). Region 10’s argument that it received “four months” of data since some monitoring was done starting on August 15, 2009, EPA Response Br. at 43 (Docket No. 44), does not change this legal violation since the regulation requires not less “than four months” of data. 40 C.F.R. § 52.21(m)(1)(iv).

The data generated at this station and relied upon by Shell in its Beaufort permit application was not collocated during this less than four month period. At the most, Region 10 received a little over two months of collocated background PM_{2.5} monitoring data from Shell in support of its permit. EPA Beaufort Stmt of Basis at NN00229 (AR NN10) (noting that “Valid PM_{2.5} data collection began on August 20, 2009”); EPA Beaufort RTC at PP000383 (AR PP5) (“On October 23, 2009, AECOM began operation of collocated PM_{2.5} monitors in Deadhorse, Alaska”); *see also* Letter from Richard Albright, EPA to Susan Childs, Shell at CC00352 (July 29, 2009) (AR CC20) (asking Shell to provide “at a minimum, 4 months of quality assured ambient PM_{2.5} monitoring data from a site representative of background concentrations in the Beaufort Sea or, alternatively, at least 4 months of quality assured monitoring data that represents a conservative estimate of background PM_{2.5} concentrations in the Beaufort Sea”). This violates 40 C.F.R. part 58 Appendix A § 3.2.5.5 and § 3.2.5.6. Additionally, the final QAPP for the Badami monitoring station that accounts for collocated monitoring was not approved until February 17, 2010, Email from Christopher Hall to Tom Damiana at CC04260 (Feb. 17, 2010) (AR CC152), which resulted in violations of 40 C.F.R. part 58 Appendix A § 2.1.2.

The Chukchi air permit is also based upon less than four months of collocated PM_{2.5} monitoring data. Again, collocated sampling did not start at the Deadhorse station until October 23, 2009, EPA Chukchi RTC at L00176 (AR L2), and Region 10 received “[d]ata from the collocated samplers at Deadhorse . . . through December 15, 2009.” *Id.* at L00179 (AR L2). Thus, while the agency received more than four months of data from Shell from the Wainwright station in support of its Chukchi air permit, because this data was not all collected during the time period when a collocated monitor was operating, the PM_{2.5} background data submitted for the Chukchi permit violates EPA’s regulations. 40 C.F.R. § part 58 Appendix A § 3.2.5.5 (“For each PSD monitoring network, one site must be collocated”); 40 CFR Part 52.21(m)(1)(iv), (m)(3) (requiring continuous air quality monitoring). For almost all the collocated PM_{2.5} data that Shell did collect, it did not have “a written and approved QAPP prior to the start of the” data collection, 40 C.F.R. part 58 Appendix A § 2.1.2, *see* Email from Christopher Hall to Tom Damiana at CC04260 (Feb. 17, 2010) (AR CC152).

In response to these arguments, Region 10 claims that it had sufficient data to approve the permits. EPA Response Br. at 39-56 (Docket No. 44). However, the agency never grapples with the plain language of its regulations. This language provides that, when a monitoring network is used to collect data, the applicant for a PSD permit must submit not less than four months of monitoring data from a network with a collocated monitor and a monitor with an approved QAPP. These requirements were simply not met here. *See e.g.*, EPA Response Br. at 47 (Docket No. 44) (“There is no dispute that the collocated PM_{2.5} monitors at Deadhorse were not operating during the entire PM_{2.5} data collection period”).⁷

⁷ EPA argues that AEWG did not raise concerns about the QAPPs during the comment period, EPA Response Br. at 47 (Docket No. 44). However, this is not the case. AEWG, ICAS and NSB raised specific concerns about the QAPPs. *See AEWG et al. 2d Chukchi Comment at*

Region 10 asks the Board to look to the goals of its regulations to conclude that Shell provided sufficient background monitoring data, EPA Response Br. at 48-50 (Docket No. 44), but even these goals were not met by the data that Shell provided. One of the key checks on monitoring data – that it come from a network with a collocated monitor – was not met while the minimal PM_{2.5} data Shell used to support its permit applications was collected. Additionally, the collocated monitors were not operating during many of the months in which Shell is proposing to operate, and Shell neglected to provide any PM_{2.5} data from the Badami monitoring station in support of the Beaufort permit for July and over half of August. EPA Beaufort Stmt of Basis at NN00229 (AR NN10). Region 10 previously expressed concerns about not having data from the months in which Shell is proposing to operate. *See* Email from Herman Wong to Pat Nair at C002976 (Aug. 26, 2009) (AR C303) (“Based on the Wainwright measurement, I now believe that it would be prudent to change the data collection period to include the Shell drilling season in the Chukchi Sea, *i.e.*, data collection from July to December”); Mtg Notes from Sept. 14, 2009 at CC001356 (AR CC38) (“Shell wanted to know if their only option was to collect PM_{2.5} data

K00252 (AR K16) (“Supplemental materials included in the administrative record discuss the installation of a collocated sampler at Deadhorse but the details of the Quality Assurance Project Plan (QAPP), as they pertain to our original comments on the need for a collocated sampler, quarterly PEP audits, tight precision and bias goals, etc, are not addressed.”); AEW *et al.* Beaufort Comment at OO00247 (AR OO21) (“it is extremely important to have a good measure of the precision and bias of the monitoring network to ensure that the monitoring that is done has tight Quality Assurance controls”). They also raised general concerns about the adequacy and sufficiency of the data being collected by Shell. AEW *et al.* 2d Chukchi Comment at K000251-53 (AR K16); AEW *et al.* Beaufort Comment at OO00204-207 (AR OO21). Thus, the question of Shell’s compliance with EPA’s regulations pertaining to the collection of background monitoring data were preserved for appeal.

during the 01 July to 31 December drill season.”). Thus, it is hard to see how even the goals of the regulations were met here.⁸

Region 10 also argues that the data Shell provided did not have to come from a network operating a collocated monitor with an approved QAPP only that this is preferred. EPA Response Br. at 51-56 (Docket No. 44). EPA’s discretion when it comes to the adequacy and sufficiency of background monitoring data is limited by the plain language of the agency’s own regulations. Here, Region 10 approved the two air permits on the basis of particulate matter data that simply fails to meet these plain language requirements. *In re Rochester Pub. Utils.*, 11 E.A.D. 593, 603-08 (EAB 2004) (Board generally will give effect to unambiguous regulatory language). This is a critical flaw because as the agency concedes “the air quality analysis . . . is the foundation of the Agency’s efforts to protect air quality” EPA Response to Pending Motion at 12 (Docket No. 49). Moreover, Shell is proposing operations for an area in which no PM_{2.5} monitoring data was collected until the end of 2008. Letter from EPA to Shell (Sept. 4, 2009) (Exhibit 16) (noting that Wainwright, Alaska monitor is the first site on the North Slope with a PM_{2.5} monitor). For these reasons, Region 10 committed clear legal error and the permits must be remanded.

Without conceding AEWC’s argument, Region 10 does note that “the Board could remand on issues related to the ambient air modeling for these permits,” EPA Response to Pending Motions at 12 (Docket No. 49), and points out that if this occurs it is critical that the

⁸ EPA argues that AEWC Petitioners have a particularly “heavy burden” in making these arguments because they are “technical in nature.” EPA Response Br. at 50 n.22 (Docket No. 44). AEWC disagrees. These issues involve a simple application of EPA’s regulations to the facts in the record regarding the amount and adequacy of the PM_{2.5} monitoring data submitted by Shell. Nevertheless, even if the Board agrees with EPA that these are technical arguments, AEWC still has met its burden of demonstrating EPA failed to ensure compliance with its own regulations.

agency be afforded the opportunity to also respond to “DOI’s review and subsequent action” which may result in a “modification” to Shell’s operations that “would likely amount to another major permitting effort on the Agency’s part” EPA Response to Pending Motions at 12-13 n.5 (Docket No. 49). This issue again demonstrates why the Board should not review Shell’s permits at this point in time. However, if the Board does review the permits and remands them to Region 10, AEWG respectfully requests that the Board set the permits aside and afford EPA ample time to determine how and to what extent the Administration’s review of offshore activities may impact the permits while enabling Shell to collect adequate background monitoring data.

B. The Failure To Account For The Formation Of Secondary PM_{2.5} Was A Clear Legal Error.

In its response brief, Region 10 implies that it (or Shell) has conducted some form of modeling of secondary PM_{2.5} formation. *See e.g.*, EPA Response Br. at 56 (Docket No. 44) (discussing “manner in which Shell and Region 10 accounted for secondary formation of PM_{2.5}”); *id.* at 58 (asking for deference for Region 10’s “determination regarding the suitability of the modeling approach used for these permit applications”). But the fact of the matter is that neither Region 10 nor Shell ever modeled the formation of secondary PM_{2.5} from Shell’s proposed operations, and this failure violated Region 10’s obligation to ensure that Shell’s operations will not “cause, or contribute to, air pollution in excess of any . . . maximum allowable increase.” 42 U.S.C. § 7475(a)(3); *see also* EPA Beaufort Stmt of Basis at NN00145-46 (AR NN10) (the applicant is “required” to analyze “ambient air quality for each” pollutant that exceeds the significant emission rate, and provide “a demonstration that it will not cause or contribute to a violation of any NAAQS or PSD increment”). Indeed, Region 10 failed to undertake this analysis even after informing Shell that it would have “to fully comply with all

requirements for PM_{2.5} direct emissions and PM_{2.5} precursors (SO₂ and NO_x).” Letter from Regional Administrator, EPA to Peter Slaiby, Shell at CC002909 (Aug. 20, 2009) (AR C293).

EPA has two primary defenses for its decision not to address secondary PM_{2.5}. First, it argues that the modeling of Shell’s direct emissions is conservative enough to account for both the secondary formation of PM_{2.5} from Shell’s emission of the precursor pollutants SO₂ and NO_x and from background sources. EPA Response Br. at 56-57 (Docket No. 44). This is in error because, as previously discussed, Region 10 relied on the inadequate PM_{2.5} baseline data provided by Shell in conducting the modeling for the permits. *See supra* at 19-23; AEWB Beaufort Pet. at 45 (Docket No. 19); AEWB Chukchi Petition at 32-40 (Docket No. 3). Moreover, Region 10 failed to rely on the most conservative background data, choosing instead to use PM_{2.5} concentrations far below the high values Shell’s limited monitoring efforts reported. *See* AEWB Beaufort Pet. at 45 (Docket No. 19). Since so little background data exists for PM_{2.5} on the North Slope, further information was required for Region 10 to conclude that its modeling results were in fact conservative.

Second, Region 10 again claims it does not have the tools available to model secondary PM_{2.5} emissions. EPA Response Br. at 61-66 (Docket No. 44). The agency’s argument that there is no “approved” model to use, *id.*, is undermined by the agency’s decision that an unapproved model (ISC3-PRIME) could be used for addressing Shell’s air emissions. Moreover, Region 10’s rejection of the models suggested by AEWB, because they are regional in nature, EPA Response Br. at 63-65 (Docket No. 44), ignores the fact that secondary PM_{2.5} emissions can occur on a more regional scale and affect a larger region. *See* Williams Decl. ¶15 (AEWB

Beaufort Exhibit 17).⁹ Therefore, it is appropriate to use a regional model to address the formation of secondary PM_{2.5}. Region 10's decision to not require further PM_{2.5} modeling was in error.¹⁰

The failure to address secondary PM_{2.5} formation is critical because Shell's direct emissions of PM_{2.5} are already predicted to consume over 83 percent of the 24-hour NAAQS. EPA Beaufort Stmt of Basis at NN00233 (AR NN10). When the margin of error is applied to this prediction, Region 10 can barely demonstrate compliance with the NAAQS. Williams Decl. ¶15 (AEWC Beaufort Exhibit 17); *see also* Email from Herman Wong to Pat Nair at C002976 (Aug. 26, 2009) (AR C303). This is the case when only Shell's direct emissions of PM_{2.5} are accounted for, instead of both its direct and secondary emissions of the pollutant.¹¹ Being fully aware of this fact, Region 10 is requiring Shell to engage in "post construction monitoring" so that "EPA, Shell, and the public will be better able to evaluate the significance of secondary formation of PM_{2.5} from sources in the area." EPA Response Br. at 66 n.26 (Docket No. 44). However, the fact that EPA, Shell and the public do not have this information *now* only supports Petitioner's contention that Shell's permits are based upon inadequate PM_{2.5} data. Thus, to

⁹ Region 10 did not reject the models suggested by Petitioners as being regional in nature until these proceedings, *see* EPA Chukchi RTC at L000188-190 (AR L2); EPA Beaufort RTC at PP000393-94 (AR PP5).

¹⁰ Region 10 fails to point to any record support for its contention that it concluded "there would be no time for formation of secondary particulates," EPA Response Br. at 60 (Docket No. 44).

¹¹ In its previous memorandum regarding particulate matter, EPA explained that "regulating PM_{2.5} must take into account not only the fine particles emitted directly by stationary sources but also the various precursors, emitted by certain sources, which result in secondarily formed fine particles through chemical reactions in the atmosphere. Recent studies suggest that secondary particulate matter may account for over half of total ambient PM_{2.5} nationwide." Memorandum from John Seizter to Addresses re: Interim Implementation of New Source Review Requirements for PM_{2.5}.

ensure that Shell will not cause or contribute to a violation of the NAAQS, AEWC respectfully submits these permits should be remanded to Region 10 for further consideration.

C. Region 10 Committed Clear Legal Error By Failing To Perform A BACT Analysis For Each Diameter Of Particulate Matter Emitted By Shell.

AEWC demonstrated that in performing a BACT analysis for particulate matter, Region 10 grouped together PM₁₀ and PM_{2.5} and performed only one BACT analysis for both pollutants. AEWC Beaufort Pet. at 39-46 (Docket No. 19); AEWC Chukchi Pet. at 40-48 (Docket No. 3). Region 10 does not deny this but instead says the result is sufficient because both “permits contain BACT limits for PM_{2.5} and PM₁₀ individually.” EPA Response Br. at 66 (Docket No. 44). However, as the New Source Review manual explains:

[i]ndividual BACT determinations are performed *for each pollutant* subject to a PSD review emitted from the same emission unit. Consequently, the BACT determination *must separately address, for each regulated pollutant* with a significant emissions increase at the source, air pollution controls for each emissions unit or pollutant emitting activity subject to review.

New Source Review Manual at B.4 (emphasis added). While EPA has long addressed issues pertaining to PM_{2.5} by addressing PM₁₀, that era has come to an end. *See* 75 Fed. Reg. 6827 (Feb. 11, 2010) (announcing repeal of grandfathering provision and end of the PM₁₀ surrogate policy).¹²

Therefore, in order to properly control the emissions from Shell’s operations, Region 10 needed to undertake a separate BACT analysis for each pollutant instead of grouping pollutants

¹² *Id.* at 6830 (“section 165(a)(3) provides that the emissions from any such source may not cause or contribute to a violation of any NAAQS. Also, section 165(a)(4) requires BACT for each pollutant subject to PSD regulation. The 1997 guidance states that sources are allowed to use implementation of a PM₁₀ program as a surrogate for meeting PM_{2.5} NSR requirements until certain difficulties concerning PM_{2.5} are resolved”); *id.* at 6833 (noting that these difficulties have been resolved because “adequate procedures for the collection of ambient PM_{2.5} are now well established,” and “air quality modeling of direct PM_{2.5} emissions can be accomplished using an EPA-approved model to predict ambient PM_{2.5} impacts caused by new and modified sources of PM_{2.5} emissions”).

together. The agency argues that Petitioners had to demonstrate how the BACT analysis would change if it were performed for different diameter particulate matter separately. EPA Response Br. at 67 (Docket No. 44). The obvious answer is that, as discussed above, had PM_{2.5} been analyzed separately Region 10 would have had to grapple not only with Shell's direct emissions but also the secondary formation of PM_{2.5}, which the agency failed to do here. Nowhere does Region 10's reliance on its current BACT analysis address controls for the secondary formation of PM_{2.5}. See EPA Response Br. at 67-68 (Docket No. 44) (discussing Region 10's understanding that control technologies for PM_{2.5} will also control particulate matter of different sizes).

When it came time to responding to Petitioners' comments on the Beaufort permit, Region 10 failed to adequately respond on this point. The agency did not delineate the comments made on the Beaufort permit and where the response could be found. See EPA Beaufort RTC at PP000360 (AR PP5) (categories J through N state "See the Chukchi Response to Comments for responses related to this category of comments"). For this reason, the permit should be remanded to Region 10. *In re: Amerada Hess*, slip op. at 19 ("Ultimately, the failure to *reasonably* respond to significant comments is itself sufficient grounds for remanding the Permit" (emphasis added)) (citing *In re: Wash Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 586, 589-90 (EAB 2004)).

IV. REGION 10 COMMITTED CLEAR LEGAL ERROR BY FAILING TO REQUIRE SHELL TO COMPLY WITH THE NEW NO₂ NAAQS AND TO CONDUCT A BACT ANALYSIS FOR CO₂.

A. By Failing To Require Compliance With The New NO₂ NAAQS, Region 10 Committed Clear Legal Error.

Without doubt if the air permits are remanded to Region 10 for any reason, Shell will be required to demonstrate its compliance with the new NO₂ NAAQS as AEWC contends it must

do now. Region 10 takes the position that Shell should not be required to comply with this standard even though: the new NO₂ NAAQS was finalized on February 9, 2010, 75 Fed. Reg. 6,474 (Feb. 9, 2010), the regulated community was aware that a new standard was being developed and when it would be finalized because of the Court order the EPA was operating under, AEWB Beaufort Pet. at 58-59 (Docket No. 19), and the new NAAQS went into effect on April 12, 2010 which is now long before Shell will commence its operations assuming it ever receives authorization to explore. EPA Response Br. at 85-87 (Docket No. 44).

AEWC submits these air permits present unique factual circumstances in which Region 10 should have required compliance with the new NO₂ NAAQS. It is rare that the regulated community would be put on notice of new legal requirements and know when those requirements would go into effect meanwhile developing a major proposal for air permits that fails to ensure compliance with those legal requirements. In addition, because of the delay announced by the Administration, Shell's activities, at the earliest, would start approximately 14 months after the new short-term NO₂ NAAQS went into effect. Yet, pursuant to Region 10's argument, those activities would not have to comply with the new NAAQS until an indefinite date in the future when the Title V permit goes into effect, which could easily be more than two years off at this point. Nevertheless, Region 10 failed to ensure compliance with the new NAAQS for NO₂ in approving Shell's permits.

Region 10's primary defense is that the new NAAQS were not in effect. EPA Response Br. at 85. But this ignores the fact that the new NAAQS were final and had been finalized long before the challenged permits were issued. *Compare* 75 Fed. Reg. 6,474 (Feb. 9, 2010) *with* Beaufort Permit Email (AEWC Beaufort Exhibit 38) (announced on April 12, 2010); Chukchi Permit Announcement at L000219 (AR L3) (announced on March 31, 2010). Under these

circumstances it is arbitrary for Region 10 not to ensure compliance with EPA's changes to the law.

Region 10 further argues that Shell will be required to comply with the new NO₂ NAAQS once it obtains its Title V permit. EPA Response Br. at 86-87 (Docket No. 44). However, this argument misses the fact that Shell will fail to comply with the current legal requirements during the entire time it is operating under its PSD permit. Since the company need only apply for its Title V permit within 12 months of commencing operations, Beaufort Stmt of Basis at NN00149 (AR NN10), again this could mean that Shell is held to a lower standard for its first two years of operation. Furthermore, the new standards address short-term exposure to NO₂. Requiring Shell to comply with the new NAAQS at some indefinite point in the future, therefore, does nothing to address the threats to human health resulting from the short-term exposures before Shell obtains its Title V permit. In light of the fact that the new requirements went into effect before Shell's operations ever commenced, Region 10 should have ensured compliance with the new NO₂ NAAQS.

B. Region 10 Committed Clear Legal Error By Failing To Require Shell To Conduct A BACT Analysis For CO₂.

As AEWEC demonstrated in its Petitions for Review, Region 10 committed a clear legal error by failing to perform a BACT analysis for CO₂ for Shell's permits. AEWEC Beaufort Pet. at 48-58 (Docket No. 19); AEWEC Chukchi Pet. at 49-58 (Docket No. 3). In response, Region 10 and Shell point to EPA's reconsideration of when a pollutant is subject to regulation under the Clean Air Act and argue that this new interpretation both excuses their failure to conduct a BACT analysis for CO₂ and forecloses the Board from reaching this question. EPA Response Br. at 78-81 (Docket No. 44); Shell Br. at 15-16 (Docket No. 50). Both these arguments fail to eliminate the need for a CO₂ BACT analysis here.

1. EPA's new interpretation of when a pollutant is subject to regulation under the Clean Air Act does not apply to these proceedings or excuse the agency's failure to perform a BACT analysis for CO₂.

Section 165(a)(2) of the Clean Air Act provides that a major emitting facility is “subject to the best available control technology for *each pollutant subject to regulation* under [the Clean Air Act] emitted from, or which results from, such facility.” 42 U.S.C. § 7475(a)(4) (emphasis added). While Region 10 was in the process of considering Shell’s permit applications, the agency was also re-considering its interpretation of section 165, and when a pollutant is subject to regulation under the Act. The outcome of this process was a new interpretation of when a pollutant is subject to regulation under the Act – *i.e.* the Jackson Memorandum interpretation. 75 Fed. Reg. 17004 (April 2, 2010).

EPA’s previous interpretation of when a pollutant is subject to regulation under the Act, that was in effect until April 2, 2010 (the “Johnson Memorandum interpretation”), was that “each pollutant subject to either a provision in the Clean Air Act or regulation adopted by EPA under the Clean Air Act that requires actual control of emissions of that pollutant” is subject to regulation. Johnson Memorandum at B003468 (AR B54). EPA’s new position is that CO₂ will not be a regulated pollutant under the Clean Air Act unless: (1) it is “subject to either a provision in the CAA or regulation adopted by EPA under the CAA;” (2) the CAA provision or the regulation “requires actual control of emissions of that pollutant” such that monitoring or reporting requirements are not sufficient; and (3) “the PSD permitting requirements will not apply to a newly regulated pollutant until a regulatory requirement to control emissions of that pollutant ‘takes effect.’” 75 Fed. Reg. at 17,016, 17,006-08. As evidenced above, in its new Jackson Memorandum interpretation EPA added the requirement that the regulation controlling an air pollutant must “take[] effect” before the pollutant will be considered to be subject to

regulation for purposes of the PSD program. During this process, the Administrator of EPA made it clear that the agency's existing interpretation would not be stayed pending the outcome of the agency's reconsideration. EPA Response Br. at 76 (Docket No. 44) (citing Letter Lisa P. Jackson, EPA Administrator to David Bookbinder, Sierra Club (February 17, 2009) (AR B-60 at B004261); 74 Fed. Reg. 18,886, 18,905 n. 29 (Apr. 24, 2009) (AR B-68.)).

During the development of Shell's permits and the public comment periods, the Johnson memorandum interpretation of when a pollutant is subject to regulation was the EPA's current interpretation. It was not until after the public comment periods closed and a few days before the challenged air permits were issued that EPA adopted its new interpretation of when a pollutant is subject to regulation. Nevertheless, Region 10 is relying on its new interpretation to justify its failure to perform a BACT analysis for CO₂ here. AEWC submits that either the agency's Johnson memorandum interpretation should be binding on this process (and as discussed below, EPA committed clear legal error by failing to require a BACT analysis for CO₂ under this interpretation), or the permits should be remanded for further proceedings consistent with EPA's new interpretation. In the event the Board considers the validity of EPA's new Jackson Memorandum interpretation, that interpretation is also invalid and should likewise be set aside and remanded to the EPA for the reasons discussed herein and in AEWC's petitions for review.

2. EPA's new interpretation of when a pollutant is subject to regulation under the Act is not a rule that must be challenged in the D.C. Circuit.

Contrary to Shell's assertion, EPA's final reconsideration action did not equate to a rule that must be challenged in the D.C. Circuit. Shell Br. at 17 (Docket No. 50) (referring to EPA's interpretation as a "reconsideration rulemaking"). As Region 10 states in its reply brief, the agency's interpretation "is not a substantive rule and did not result in new regulatory text or a

change to existing text.” EPA Response Br. at 79 -80 (Docket No. 44). For this reason, EPA’s new interpretation did not have to be challenged in the D.C. Circuit.

Region 10 argues that the EAB is not the proper forum in which to challenge the Administrator’s final interpretation. EPA Response Br. at 78, 79 (Docket No. 44). It bases this argument on the Administrator’s determination that “any challenges to that interpretation ‘must be brought to the United States Court of Appeals for the District of Columbia Circuit.’” *Id.* (citing 75 Fed. Reg. at 17,023, AR EPA Ex. B-122). Again, EPA has not issued a new regulation, only a new interpretation of key language in the Clean Air Act that has direct relevance to the permits challenged in these proceedings. As a result, it is critical that Petitioners have a forum for raising their concerns over Region 10’s failure to conduct a BACT analysis for CO₂ in issuing Shell’s permits. Indeed, courts have long upheld challenges to the application of a regulation to a particular situation as permissible. *See Cellular Telecomms. & Internet Ass’n v. FCC*, 330 F.3d 502, 509 (D.C. Cir. 2003) (plaintiff may challenge regulation as applied, irrespective of whether it may challenge the regulations across-the board); *Dunn-McCampbell Royalty v. Nat’l Park Service*, 112 F.3d 1283, 1289 (5th Cir. 1997) (“[i]t is possible, however, to challenge a regulation after the limitations period has expired, provided that the ground for the challenge is that the issuing agency exceeded its . . . statutory authority” and the plaintiff can “show some direct, final agency action involving the particular plaintiff within six years of filing suit”); *Sierra Club v. U. S. FWS*, 245 F.3d 434, 441-43 (5th Cir. 2001) (finding Fish and Wildlife Service regulation invalid because it violated the Endangered Species Act in an as-applied challenge); *N.M. Cattle Growers Ass’n v. U. S. FWS*, 248 F.3d 1277, 1283 & n. 2 (10th Cir.

2001) (same); *Gifford Pinchot Task Force v. U.S. FWS*, 378 F.3d 1059, 1070-77 (9th Cir. 2004) (same).¹³

3. Under the EPA’s interpretation of when a pollutant is subject to regulation under the Act that was in effect during the development and comment period on Shell’s air permits, a BACT analysis was required for CO₂.

In addition to erring in its interpretation in the Johnson memorandum, Region 10 also erred by applying EPA’s new interpretation of PSD permitting requirements to CO₂. Instead, because Shell’s permits were developed and put out for public comment while the interpretation embodied in the Johnson memorandum was in effect, Region 10 should have applied that interpretation to CO₂ and concluded that a BACT analysis was required. Pursuant to the Johnson memorandum, CO₂ is a regulated pollutant under the Act, because it is subject to a “regulation adopted by EPA under the Clean Air Act that requires actual control of emissions of that pollutant.” Johnson Memorandum at B003468 (AR B54). This is demonstrated by a variety of actions taken by the EPA.

To begin with, EPA has announced that come January 2, 2011, it will require large industrial facilities that emit at least 50,000 tons of greenhouse gases per year to obtain construction and operating permits covering those emissions. 75 Fed. Reg. 31514 (June 3, 2010). As a greenhouse gas, CO₂ would be included in that requirement. Additionally, the agency has issued new mandatory recording and reporting requirements for major sources of CO₂. AEWB Beaufort Pet. at 50 (Docket No. 19) (Mandatory Reporting of Greenhouse Gas

¹³ The Center for Biological Diversity has filed a challenge in the Court of Appeals for the District of Columbia. *Center for Biological Diversity v. EPA*, Case No. 10-1115, filed May 28, 2010 (D.C. Cir.). However, it is critical that this issue also be resolved here as applied to these permits, since the proceedings in the D.C. Circuit are likely to outlast these proceedings and may, in any event, not reach the “as applied” challenge to these permits.

Emissions, Final Rule, 74 Fed. Reg. 56,260 (Oct. 30, 2009)); *id.* at 49 (citing 40 C.F.R. § 75; Section 821 of Pub.L. 101-549(a)).

In addition to these regulations, the EPA also approved a SIP amendment submitted by Delaware regarding emissions from stationary sources. 73 Fed. Reg. 23101 (April 29, 2008)). This amendment took effect on May 29, 2008, and included “specific limitations on the rate of several pollutants, including carbon dioxide, that may be emitted by stationary generators in the state.” AEWB Beaufort Pet. at 50 (Docket No. 19) (quoting Letter from Brian Doster, EPA, to Clerk of the Board (Sept. 9, 2008) (AEWB Beaufort Exhibit 29)). In July, EPA further expanded its regulation of CO₂ by granting California’s request for a waiver of the Clean Air Act’s preemptive power over GHG vehicle standards. *Id.* at 56-57 (citing 74 Fed. Reg. 32,744 (July 8, 2009)). This waiver is now enabling a whole host of States and the District of Columbia to regulate CO₂. Together, these actions taken by the EPA illustrate the fact that CO₂ is in fact a regulated pollutant under the Act within the meaning of the Johnson memorandum, which was EPA’s binding interpretation at the time Shell’s permits were developed and put out for public comment.¹⁴

Had Region 10 truly wanted to apply its latest interpretation of when a pollutant is subject to regulation under the Act to Shell’s permits, it needed to explain as much in its statement of basis and provide the public with the opportunity to comment on this interpretation as applied to Shell’s operations. Instead, the agency failed to provide any explanation as to why it was not requiring BACT for CO₂ in Shell’s permits even after Petitioners raised this issue in the fall of 2009 when the first iteration of the Chukchi permit was put out for public comment.

¹⁴ CO₂ is also a regulated pollutant under the Jackson Memorandum interpretation especially in light of EPA’s California waiver decision, which has resulted in several States regulating CO₂ under the Clean Air Act thus demonstrating CO₂ meets the requirements of even the agency’s new interpretation, *see* 75 Fed. Reg. at 17,016, 17,006-08.

Therefore, if Region 10 wishes to apply its new interpretation here a remand is necessary so the agency can explain its position and take public comment thereon. Otherwise, petitioners respectfully request that the Board set aside and remand the permits as unlawful.¹⁵

V. REGION 10 COMMITTED CLEAR ERROR BY NOT PERFORMING AN ENVIRONMENTAL JUSTICE ANALYSIS.

The Inupiat population of the North Slope of Alaska is uniquely vulnerable to the adverse health effects of air pollution, including particulate matter and nitrous oxides. In their response brief, neither Region 10 nor Shell dispute the fact that Inupiat Eskimos experience higher rates, when compared to the general public, of chronic respiratory disease, including asthma, lung cancer, and cardio-respiratory mortality.

Instead of assessing the demographics of the impacted communities and attempting to identify disproportionate adverse human health effects, Region 10 relied on a finding that the permitted operations will comply with the NAAQS in concluding that it need not conduct any further environmental justice review. EPA Response Br. at 98 (Docket No. 44) (citing Chukchi Response to Comments, AR EPA Ex. L-2 at L000204; Beaufort Response to Comments, AR EPA Ex. PP-5 at PP000405). In so concluding, EPA simply disregarded its own evidence and statements that the NAAQS, as applied to these permits, do not adequately protect public health, much less the health of uniquely sensitive and vulnerable Alaska Natives.

¹⁵ EPA's failure to adequately respond to Petitioners concerns about the lack of a BACT analysis for CO₂ holds true once again in the Agency's response brief. Rather than writing out a response to Petitioners' assertion that CO₂ is, in fact, subject to regulation, EPA merely states that it "has already addressed most of the arguments made in the Petitions during the final reconsideration action." EPA Response Br. at 81 (Docket No. 44). The Agency then provides a chart listing Petitioners' argument and citations directing the reader to the corresponding EPA response located in the Federal Register Notice and Response to Comments. *Id.* at 81, 82. Thus, the agency has simply failed to provide a detailed and satisfactory response to Petitioners' concerns.

At a general level, allowing EPA to simply equate NAAQS compliance with an environmental justice analysis vitiates the intent and effectiveness of the Executive Order. As discussed in the opening brief, every permit decision made by EPA must be accompanied by a finding that the emissions will not result in a violation of the NAAQS. AEW Pet. at 70 (citing 42 U.S.C. §§ 7475(a)(3), (a)(7)). EPA's interpretation that no possible health risks could ever result on a case-by-case basis solely because NAAQS are met would effectively render the Executive Order meaningless in the permitting context. This case presents a unique situation and aptly demonstrates how simple compliance with NAAQS cannot equate with a *per se* finding of no adverse health affect for purposes of an environmental justice analysis. Here, the record unequivocally demonstrates that the NAAQS as applied to these permits do not ensure that no adverse effects will result to the local impacted communities. EPA has failed to set forth a rational response to this evidence in the record.

In particular, EPA decided to supplement the existing annual NO₂ standard with a short-term 1-hour primary standard of 100 parts per billion (ppb). 75 Fed. Reg. 6474, 6475 (February 9, 2010). In discussing the impacts of NO₂ on public health, EPA itself recognized that certain racial and ethnic groups are at higher risk from exposure to pollutants. *Id.* at 6481. In particular, EPA found that the “prevalence and severity of asthma is higher among certain ethnic or racial groups such as . . . Alaskan Natives,” noting that they “will have even greater risks of experiencing health effects related to NO₂ exposure.” *Id.* EPA concluded by finding that the size of the potentially at-risk population “suggests that exposure to ambient NO₂ could have a significant impact on public health in the United States.” *Id.* at 6482.

EPA fails to provide any rational response to its own findings regarding the health threats posed by short-term exposure to NO₂, in particular with respect to specific ethnic groups such as

Alaskan Natives. To the contrary, EPA now takes a directly contrary position before the EAB that compliance with the annual NAAQS is adequate to protect the public health. That assumption, however, is directly contradicted by the agency's decision to implement a new, short-term standard.

Region 10's argument in its Response Brief is similarly unconvincing. EPA states only that "Shell will be required to demonstrate compliance with any newly promulgated NAAQS . . . when it submits its Title V applications for these operations, which is required within one year of commencing operations." Region 10 Br. at 99 n 36. Here too, EPA's argument before the EAB fundamentally contradicts its findings in issuing a new, short-term NAAQS for NO₂. The issuance of a Title V operating permit, at some indefinite point in the future, does nothing to address the health threats posed by short-term exposure to NO₂ in the interim.¹⁶

Shell, for its part, attempts to limit EPA's concerns about the public health threat resulting from short-term exposure to NO₂, an argument that EPA itself has not made. Shell Br. at 80 n 52. Shell argues that the short-term NO₂ standard is "specifically designed to protect communities near highways, where repeated exposures to short-term high concentrations of NO₂ could raise concerns." *Id.* (citing 75 Fed. Reg. at 6,479). Shell attempts to distinguish its operations as "far from any local community," which therefore present "very different circumstances." *Id.*

The Board should reject Shell's simplistic reading of EPA's new short-term NAAQS standard. Emissions near roadways were a component of the health impacts resulting from short-term exposure to NO₂, but EPA's concerns were clearly not limited solely to this scenario.

¹⁶ Although Shell must apply for a Title V permit within 12 months of beginning operations, EPA does not discuss how long it will take to issue that permit, when Shell's operations will be brought into the compliance with any new NAAQS that apply at that time, and what health impacts could result to the local Inupiat population in the interim.

NO₂ can present adverse health effects wherever humans are exposed. As EPA found, because “NO₂ in the ambient air is due largely to the atmospheric oxidation of NO emitted from combustion sources . . . , elevated sources of NO₂ concentrations can extend farther away from roadways than the primary pollutants also emitted by on-road mobile sources.” 75 Fed. Reg. at 6,479. The Administrator clarified that the 1-hour standard reflects the “maximum allowable NO₂ concentrations anywhere in an area” and in doing so she targeted both “NO₂ concentrations near roads and away from roads.” 75 Fed. Reg. at 6,494. The Administrator “concluded that a standard level at or somewhat below 100 ppb under the proposed approach would be expected to maintain peak area-wide NO₂ concentrations well below 90 ppb across locations . . .” *Id.* The new standard “reflects the maximum allowable NO₂ concentration *anywhere in an area*” and not solely near a roadway or when emissions are associated with a roadway as implied by Shell. 75 Fed. Reg. at 6500.¹⁷

With respect to particulate matter, EPA’s blind reliance on the NAAQS similarly fails to respond to record evidence regarding the inadequacy of background data and the formation of secondary particulate matter. *See supra* at 19-26. In some situations, compliance with NAAQS may be an acceptable component an environmental justice analysis for purposes of determining whether adverse impacts may result from the permitted emissions. *Kulluk I*, slip op. at 67-68. In reaching this conclusion, however, Region 10 must still assess the evidence in the record and adequately explain its decisions. *Id.* at 41 (citing *In re City of Moscow, Idaho*, 10 E.A.D. 135, 142 (EAB 2001); *In re NE Hub Partners L.P.*, 7 E.A.D. 561, 567-68 (E.A.B. 1998)). The Board

¹⁷ Moreover, the Inupiat use Camden Bay, and other areas of the Beaufort and Chukchi Seas for subsistence activities, including fishing and hunting marine mammals and wildlife species. These subsistence activities take them far from their local villages, and community members spend extended periods of time closer to the emissions sources than suggested by EPA and Shell.

has, for instance, upheld an environmental justice analysis where two memoranda analyzed “the demographics of the area surrounding the proposed [] facility and assess[ed] whether the emissions from the facility will have a disproportionately high and adverse impact on human health or the environment.” *In re Knauf Fiber Glass, GMBH*, 9 E.A.D. 1, 16 (EAB 2000).

Here, Petitioners submitted numerous comments and provided factual evidence in support of their contention that Region 10’s finding of compliance with the NAAQS does not rule out any and all adverse health impacts to local Inupiat populations. Region 10 did not respond to these concerns in the context of its environmental justice analysis, choosing instead to simply blindly rely on NAAQS compliance without considering the evidence that the operations could still have an adverse impact on the local community. Moreover, Region 10 never even attempted to consider the demographics of the local surrounding population. Region 10 has not provided a rational response to these concerns, and this matter should be remanded to the agency for it to do so on the record.

CONCLUSION

For the foregoing reasons and those in AEW’s petitions for review, we respectfully urge the Board to review and remand the PSD permit to EPA for further analysis.

Respectfully submitted,

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