

**ALASKA WILDERNESS LEAGUE—CENTER FOR BIOLOGICAL DIVERSITY  
EARTHJUSTICE—NORTHERN ALASKA ENVIRONMENTAL CENTER  
OCEAN CONSERVANCY—OCEAN CONSERVATION RESEARCH—OCEANA  
THE WILDERNESS SOCIETY**

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**VIA WEB UPLOAD AT: [www.regulations.gov](http://www.regulations.gov)**

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**Re: Comments on the Bureau of Ocean Energy Management’s regulations of air emissions from drilling operations on the Alaska Outer Continental Shelf; Docket No. BOEM-2013-0035**

Alaska Wilderness League, Center for Biological Diversity, Earthjustice, Northern Alaska Environmental Center, Ocean Conservancy, Ocean Conservation Research, Oceana, and The Wilderness Society hereby submit the following comments to the Bureau of Ocean Energy Management (“BOEM”) in response to the agency’s request for information on how to improve rules for oil and gas exploration, development, and production in the Alaska Outer Continental Shelf (“OCS”). These comments specifically address BOEM’s regulation of air emissions from offshore oil and gas development.

## **I. INTRODUCTION**

In December 2011, in an appropriations rider, Congress transferred authority for regulation of air pollution from drilling activities “offshore of the North Slope Borough of the State of Alaska” from the U.S. Environmental Protection Agency (“EPA”) to the Department of the Interior (“DOI” or “Interior”).<sup>1</sup> BOEM is the agency within Interior that administers air authorizations for offshore drilling—previously in the western Gulf of Mexico and now in the Beaufort and Chukchi seas as well.

Senator Lisa Murkowski, sponsor of the appropriations rider, publicly pledged that the measure would expedite permitting of offshore drilling operations but would not otherwise change substantive environmental protections for Arctic air. She stated: “We’re looking for regulatory parity here . . . . The two different agencies are both tasked with the same requirements, yet one

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<sup>1</sup> See Pub. L. No. 112-74 at § 432 (2011).

takes months, the other takes years.”<sup>2</sup> Senator Murkowski’s statement tracks the text of the enactment, which effectuates a “transfer of air quality permitting authority,” for purposes of “the expeditious and orderly development of energy resources in a manner that protects human health and the environment.”<sup>3</sup>

BOEM’s air regulations, however, differ fundamentally from EPA’s regulations—exempting nearly all offshore sources from air quality standards and any requirement to install pollution controls. In most cases, offshore sources subject to Interior oversight need not even conduct a preliminary assessment of air quality impacts. BOEM’s regulations, which the agency is now poised to apply to the Arctic, were developed more than 30 years ago for the Gulf of Mexico.<sup>4</sup> The regulations are wrongly focused on onshore air quality only, outdated, not scientifically defensible, facially invalid in some respects, and especially inappropriate for use in the Arctic where operations and the weather are radically different from the Gulf of Mexico.

Consistent with the stated purpose of the 2011 appropriations rider and Senator’s Murkowski’s representations concerning the effect of the legislation, BOEM must update its regulations to protect offshore air quality to the same degree as EPA’s regulations. Offshore sources in the Arctic should be required to comply with ambient air quality standards and technological control requirements within Arctic waters.

## **II. OVERVIEW OF BOEM’S OFFSHORE AIR QUALITY REGULATIONS**

Although Congress directed Interior to develop regulations “to provide for the . . . conservation of the natural resources of the outer Continental Shelf” generally and to provide for “compliance with the national ambient air quality standards pursuant to the Clean Air Act” specifically,<sup>5</sup> the differences between EPA’s air regulations and those currently administered by BOEM are drastic. For example, BOEM’s regulations do not require an air permit for offshore oil and gas activities in federal waters; rather sources provide information that is then evaluated and approved as part of the source’s exploration plan.<sup>6</sup> Approval from BOEM typically is obtained without any detailed air quality analysis and without any obligation to install pollution controls. BOEM’s regulations likewise fail to establish any requirement for public notice and comment.

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<sup>2</sup> Alex DeMarban, “Murkowski aims to transfer EPA's air permitting clout,” Alaska Dispatch, Dec. 15, 2011 (quoting Senator Murkowski) (emphasis added) (attached as Exhibit 1).

<sup>3</sup> Pub. L. No. 112-74 at § 432(a), (d) (emphasis added).

<sup>4</sup> DOI proposed air regulations for offshore operations in 1979 that were adopted on March 7, 1980. 45 Fed. Reg. 15,128; *see also* 44 Fed. Reg. 27,448 (May 10, 1979) (proposal). These regulations have not been updated or otherwise amended since 1980, though they have been renumbered several times in the Code of Federal Regulations to reflect the several reorganizations of the agencies within DOI that have occurred since then.

<sup>5</sup> 43 U.S.C. §§ 1334(a), (a)(8); *see also id.* § 1332(3), (6) (declaring that the it is “the policy of the United States” to develop the OCS “subject to environmental safeguards” and in manner that “prevent[s] or minimize[s] the likelihood of . . . damage to the environment[,] . . . life or health”).

<sup>6</sup> *See generally* 30 C.F.R. §§ 550.218; 550.302-304.

The regulations establish a three-step review process, with most offshore sources receiving an exemption from air quality impact analysis and control requirements at the very first step. At the first step, projected annual emissions from the regulated “facility,” generally defined as the drilling platform or drillship to the exclusion of support vessels,<sup>7</sup> are compared to an “emission exemption amount.”<sup>8</sup> The exemption amount is determined using a linear equation developed in 1979-80 that assesses potential impact based on distance from shore. For all pollutants except carbon monoxide (CO), the exemption amount is 100 tons per year for a source 3 miles from shore, 200 tons per year for a source 6 miles away, 300 tons for a source 9 miles away, 400 tons for a source 12 miles away, etc.<sup>9</sup> If a facility’s projected annual emissions are below the exemption amount, it is exempt from further regulatory review and any requirement to install controls.<sup>10</sup>

Under the regulations, a large source of air pollution (*i.e.*, one that emits 300 tons per year of each of four pollutants—nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM) and volatile organic compounds (VOC)) that is located in close proximity to the shoreline (*i.e.*, nine miles from shore) would be completely exempt from any analysis of its air quality impacts as well as any obligation to install pollution controls.<sup>11</sup> The very same source, if regulated by EPA, would be deemed a “major” source, required to conduct a full air quality impact analysis demonstrating compliance with all applicable air quality standards, and would be required—at a minimum—to apply the “best available control technology” (“BACT”) for each pollutant.<sup>12</sup>

In those rare instances where a facility’s emissions exceed the exemption amount, BOEM’s regulations require the operator to conduct preliminary air dispersion modeling to assess whether the facility’s emissions will have any “significant” onshore impacts. The purpose of the modeling is to determine whether the facility’s projected emissions will result in ambient concentrations at the shoreline that exceed certain “significance levels” set forth in the regulations.<sup>13</sup> The significance levels, which track those used by EPA in 1980 as a screening tool for issuance of permits under the Clean Air Act’s Prevention of Significant Deterioration program, “are approximately two percent of the national ambient air quality standards.”<sup>14</sup>

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<sup>7</sup> See 30 C.F.R. § 550.302.

<sup>8</sup> *Id.* § 550.303(d).

<sup>9</sup> *Id.*; see also Department of the Interior, POCS Reference Paper No. 53-5: Air Quality Impact of Proposed OCS Sale No. 53 Offshore Central and Northern California (“POCS Reference Paper No. 53-5”), at VIII-11 (1980) (attached as Exhibit 2) (“DOI’s regulations include an emission exemption level which is generally a linear function of distance from the shore—at three miles from shore the exemption level is 100 tons per year, at six miles it is 200 tons per year.”).

<sup>10</sup> 30 C.F.R. § 550.303(d).

<sup>11</sup> See *id.*; see also POCS Reference Paper No. 53-5, Ex. 2, at VIII-11.

<sup>12</sup> See 42 U.S.C. §§ 7475(a)(4), 7479(1).

<sup>13</sup> 30 C.F.R. § 550.303(e).

<sup>14</sup> 45 Fed. Reg. at 15,131.

Only facilities whose modeled emissions exceed the significance levels, measured at the shoreline, are required to install pollution controls.<sup>15</sup> Patterned after the Clean Air Act, the regulations require application of BACT.<sup>16</sup> It is unclear if any offshore oil or gas operation has ever exceeded the significance levels set forth in DOI’s regulations and, as a result, been required to install pollution controls.

### **III. BOEM IS OBLIGATED TO STRENGTHEN ITS AIR REGULATIONS TO PROTECT OFFSHORE AIR QUALITY.**

BOEM must revise and strengthen its air regulations to protect offshore air quality in America’s Arctic and to comply with the 2011 appropriations rider. The rider effectuated a “transfer of air quality permitting authority” for the explicit purpose of “ensur[ing] that the energy policy of the United States focuses on the expeditious and orderly development of energy resources in a manner that protects human health and the environment.”<sup>17</sup> Consistent with Senator Murkowski’s representation that the rider would not change substantive regulatory requirements for the Alaska OCS, the rider broadly aims to protect “human health and the environment” without any suggestion that protection measures should not apply offshore. BOEM’s air regulations are inconsistent with the stated purpose of the rider and Congress’s intent because they focus exclusively on preventing air quality impacts at the coastline, allowing sources to violate air quality standards in all offshore areas.

The need for BOEM to update its air regulations—compelled by the rider—is fully consistent with BOEM’s authority under Outer Continental Shelf Lands Act (“OCSLA”). OCSLA grants BOEM broad authority to conserve offshore natural resources, including clean air. The key provision of OCSLA, section 1334, states: “The Secretary may at any time prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for the prevention of waste and conservation of the natural resources of the outer Continental Shelf . . . .”<sup>18</sup> Significantly, section 1334 only sets minimum requirements for the maintenance of air quality, stating that “[t]he regulations prescribed by the Secretary . . . shall include, but not be limited to, provisions . . . for compliance with the national ambient air quality standards pursuant to the Clean Air Act . . . , to the extent that activities authorized under this subchapter significantly affect the air quality of any State.”<sup>19</sup> Preventing impacts to the “air quality of any State” is, therefore, the bare minimum required under OCSLA.

OCSLA does not define the phrase “air quality of any State” but BOEM’s regulations currently assume, incorrectly, that it refers exclusively to air resources from the shoreline inward.<sup>20</sup> State waters—and air as well—extend at least three miles offshore. Moreover, state residents may spend time on the ocean at significant distances from shore and states possess an important

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<sup>15</sup> 30 C.F.R. § 550.303(g).

<sup>16</sup> *See id.* §§ 550.303(f), (g), (h).

<sup>17</sup> Pub. L. No. 112-74 at § 432(a), (d) (emphasis added).

<sup>18</sup> 43 U.S.C. § 1334(a) (emphasis added).

<sup>19</sup> *Id.* §§ 1334(a), (a)(8) (emphasis added).

<sup>20</sup> 45 Fed. Reg. at 15,136 (stating Interior’s view that “it is appropriate to measure the impact of the offshore emission landward of the shoreline”).

interest in maintaining the air quality at these distances for the health and welfare of its citizens. For example, Alaska Native hunters from coastal communities in the North Slope Borough rely upon a clean, healthy environment to support traditional subsistence practices and report that subsistence hunting activities involve travel as far as 60 miles out to sea.<sup>21</sup>

Although Interior historically has taken the very narrow view that OCSLA limits the department's authority to preventing air quality impacts onshore, this view is not based upon the language of OCSLA but upon a single excerpt of legislative history.<sup>22</sup> The statutory language authorizes BOEM to protect more than onshore air quality alone and the recent rider, premised on an assumption that BOEM would protect human health and the environment to the same extent as EPA, demands that BOEM update and improve its regulations to protect offshore air quality as well.

#### **IV. BOEM'S AIR REGULATIONS ARE OUTDATED AND FACIALLY INVALID**

As explained in the foregoing section, BOEM's air regulations are fundamentally inadequate because they are designed to protect onshore air quality only—to the exclusion of air quality impacts on the Alaska OCS itself. Beyond this foundational error, which BOEM must address before applying the regulations to the Arctic, many of BOEM's specific provisions are outdated, lack a scientific basis, and/or are otherwise invalid or inappropriate for use in the Arctic.

##### **A. The exemption formulas are outdated and lack scientific validity.**

Flawed formulas that exempt the majority of offshore oil and gas sources from conducting an air impact analysis or installing any controls are the defining feature of BOEM's air regulations. Under the exemption formulas, offshore sources are authorized to emit hundreds and sometimes thousands of tons of air pollution without any requirement to install pollution controls or monitors and without even the most basic, preliminary assessment of the source's impact on air quality. This sweeping regulatory exemption is based on two very general pieces of information: a source's annual tonnage of air pollution and its distance from shore.<sup>23</sup> Sources should not be allowed to emit large quantities of air pollution without any obligation to model likely impacts or to assess compliance with EPA's air quality standards. Simply put, the exemption formulas are ill-advised and harmful.

Even if the exemption formulas did not so obviously constitute a poor and destructive policy, BOEM's exemption formulas are not scientifically defensible. Within just a few years of their development, it was demonstrated empirically that the formulas are not accurate—at least not outside of the Gulf of Mexico. In 1984, EPA and Interior jointly conducted a photochemical modeling study which indicated that offshore oil and gas sources accounted for at least 10

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<sup>21</sup> EPA, Supplemental Environmental Justice Analysis for proposed Outer Continental Shelf PSD Permit No. R10OCS/PSD-AK-2010-01 & Permit No. R10OCS/PSD-AK-09-01 at 6-7 (attached as Exhibit 3).

<sup>22</sup> 45 Fed. Reg. at 15,136.

<sup>23</sup> 30 C.F.R. § 550.303(d).

percent of the allowable ozone and NO<sub>x</sub> air pollution onshore in the Santa Barbara area.<sup>24</sup> The regulations were designed to limit offshore sources to a 2 percent impact,<sup>25</sup> meaning the formulas were allowing five times more pollution than intended and thereby jeopardizing local onshore air quality. Indeed, recognizing that its regulations are ill-suited for application outside of the Gulf of Mexico, DOI has twice proposed more stringent regulations for California.<sup>26</sup> Likewise, the Gulf of Mexico-based exemption formulas are not appropriate for application to sources in the Arctic.<sup>27</sup>

Whatever the initial scientific basis for use of the exemption formulas in the Gulf of Mexico, that science is no longer current or credible. Reflecting the air modeling science that existed in 1980, EPA researchers and others have since developed considerably more sophisticated and accurate air pollution modeling techniques in the last 30 years. Additionally, BOEM's exemption formulas are still based on a source's annual air emissions even though more recent scientific evidence demonstrates that human health may be adversely affected by short-term exposure to air pollution and EPA, as a consequence, has adopted air quality standards limiting air pollution concentrations of nitrogen dioxide (NO<sub>2</sub>) and SO<sub>2</sub> for periods as short as one hour.<sup>28</sup> A regulatory approach premised on a source's annual emissions is simply useless for preventing harmful short-term air quality impacts. Such an approach also defies OCLSA, which requires regulations to ensure "compliance with the national ambient air quality standards pursuant to the Clean Air Act,"<sup>29</sup> including EPA's newer 1-hour standards.

B. The significance levels are outdated and fail to address all regulated pollutants.

The significance levels set forth in BOEM's regulations—which adopted levels used by EPA in 1980—are likewise outdated and invalid. For example, BOEM's regulations establish a

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<sup>24</sup> See Letter from Judith E. Ayres, EPA Regional Administrator, to The Honorable John D. Dingell, Mar. 26, 1987 (attached as Exhibit 4).

<sup>25</sup> See 45 Fed. Reg. at 15,131.

<sup>26</sup> See 45 Fed. Reg. 15,147, 15,148 (Mar. 7, 1980) (proposing exemption formulas and significance levels "approximately twice as stringent" as the ones applicable to other offshore areas); 54 Fed. Reg. 1,846 (Jan. 17, 1989) (proposing heightened control requirements for California coastal areas following litigation and a negotiated rulemaking process).

<sup>27</sup> The exemption formulas assume that all drilling operations use identical equipment and operate under identical meteorological conditions. See 45 Fed. Reg. at 15,130. The equipment used in the Arctic—and the meteorological conditions there—differ substantially from the equipment and conditions elsewhere.

<sup>28</sup> See 40 C.F.R. § 50.11(b) (1-hour national ambient air quality standard for NO<sub>2</sub>); *id.* § 50.17(b) (1-hour national ambient air quality standard for SO<sub>2</sub>); 75 Fed. Reg. 6,474, 6,490 (Feb. 9, 2010) ("Experimental studies in humans and animals have reported respiratory effects following NO<sub>2</sub> exposures lasting from less than 1 hour up to several hours."); 75 Fed. Reg. 35,520, 35,525 (June 22, 2010) ("The [Integrated Science Assessment] concluded that there was sufficient evidence to infer a 'causal relationship' between respiratory morbidity and short-term (5-minutes to 24-hours) exposure to SO<sub>2</sub>. Importantly, we note that a 'causal relationship' is the strongest finding the [Integrated Science Assessment] can make.").

<sup>29</sup> 43 U.S.C. §§ 1334(a), (a)(8).

significance level for total suspended particulates or “TSP.”<sup>30</sup> EPA no longer regulates particle pollution using the TSP denomination. Standards addressing particle pollution have been superseded by more detailed and health protective ambient air quality standards that separately address coarse particulate matter (PM<sub>10</sub>) and fine particulate matter (PM<sub>2.5</sub>). EPA has adopted “significance levels” for PM<sub>10</sub> and PM<sub>2.5</sub> that are not reflected in BOEM’s regulations.<sup>31</sup>

Likewise, BOEM’s regulations fail to establish significance levels for 1-hour concentrations of nitrogen dioxide (NO<sub>2</sub>) and SO<sub>2</sub>. Neither pollutant was subject to a 1-hour standard in 1980 but such 1-hour national ambient air quality standards were recently adopted owing to research on the adverse health consequences of short-term exposure to these pollutants.<sup>32</sup> EPA, in guidance memoranda, has established “interim significant impact levels” for both of these pollutants pending a rulemaking process to establish final levels.<sup>33</sup> BOEM must update its regulations to reflect EPA’s revised national ambient air quality standards and significance levels.

Since BOEM’s regulations were adopted in 1980, EPA has recognized the harm caused by emissions of greenhouse gases. In 2009, EPA issued its landmark finding that six greenhouse gases—including carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>)—“endanger both the public health and the public welfare of current and future generations.”<sup>34</sup> EPA has not instituted a national ambient air quality standard for greenhouse gases but large industrial sources of are subject to Clean Air Act permitting and control requirements if emissions exceed a certain threshold. More specifically, under EPA’s “Tailoring Rule” all new sources that emit at least 100,000 tons per year of greenhouse gases, measured as “carbon dioxide equivalent” (CO<sub>2e</sub>), must obtain a preconstruction permit and apply BACT; for certain sources, the permitting and BACT threshold is even lower—75,000 tons per year of CO<sub>2e</sub>.<sup>35</sup> Since offshore oil and gas operations may emit large quantities of greenhouse gases, BOEM’s air regulations must be updated to require BACT for the largest sources to reduce this harmful pollution.

### C. BOEM’s air regulations are especially dangerous for Alaska

Beyond the foregoing shortcomings of the exemption formulas and significance levels, BOEM’s regulations are inadequate in two more respects that are uniquely harmful for air in the Arctic.

First, BOEM’s regulations generally restrict air pollution from drilling platforms and drillships while ignoring the substantial air pollution emitted by associated service and support vessels.<sup>36</sup>

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<sup>30</sup> See 30 C.F.R. 550.303(e)

<sup>31</sup> Compare 40 C.F.R. Part 51, Appendix S at III.A with 30 C.F.R. § 550.303(e).

<sup>32</sup> 40 C.F.R §§ 50.11(b), 50.17(b); 75 Fed. Reg. 35,520; 75 Fed. Reg. 6,474.

<sup>33</sup> See Memo from Stephen D. Page to Regional Air Division Directors re Implementation of the 1-hour NO<sub>2</sub> NAAQS (June 29, 2010) (attached as Exhibit 5); Memo from Stephen D. Page to Regional Air Division Directors re Implementation of the 1-hour SO<sub>2</sub> NAAQS (Aug. 23, 2010) (attached as Exhibit 6).

<sup>34</sup> 74 Fed. Reg. 66,496 (Dec. 15, 2009).

<sup>35</sup> See generally 75 Fed. Reg. 31,514 (June 3, 2010).

<sup>36</sup> See 30 C.F.R. § 550.302 (definition of “facility”); POCS Reference Paper No. 53-5 at VIII-11 (“[T]he definition seems to exclude crew and supply boats. Vessels used to transfer product

This is a significant and dangerous oversight for the Alaska OCS, where drillships account for only a small percentage of an operation's overall air emissions. In the Arctic, icy conditions and the absence of infrastructure require a fleet of support vessels, including ice breakers, that may account for more than 90 percent of the total emissions associated with drilling.<sup>37</sup> In other words, BOEM's regulations do not account for, nor regulate, the overwhelming majority of the air pollution from offshore operations in the Arctic. EPA, by contrast, is required by the Clean Air Act to account for and control emissions from all support vessels within 25 miles of the drilling platform or drillship.<sup>38</sup>

Second, the exemption formulas are premised upon a source's annual air emissions, which is not a reliable indicator of the impact from offshore sources in the Arctic where operations are limited to an intense four-month drilling season. Under the formulas, a source in the Gulf of Mexico located 9 miles from shore that emits 299 tons of NO<sub>x</sub> over a 12-month period is exempt from an air impact analysis and pollution controls. An Arctic source located 9 miles from shore is also exempt, even though its 299 tons of "annual" NO<sub>x</sub> emissions are emitted during a four-month drilling period. In other words, the Arctic source is still exempt even though it emits pollution at three times the rate during its period of operation. Allowing sources operating on the Alaska OCS to pollute at such a higher rate—while exempting them from any impact analysis—is arbitrary, a threat to air quality, and an abdication of BOEM's statutory responsibility.

Ill-designed to account for the air pollution from offshore drilling operations in the Arctic, BOEM's air regulations pose a real threat to North Slope communities. Increased development of Alaska's OCS will increase ambient concentrations of harmful air pollutants over the ocean, use of which is a critical part of the way of life of people in the region, and in the nearest coastal communities. Alaska's North Slope communities already exhibit higher rates of outpatient visits from upper respiratory problems than Alaskans in the general population, making them especially vulnerable to adverse health effects from air pollution.<sup>39</sup> In fact, pulmonary disease is one of the leading causes of death among Alaska Natives in the region.<sup>40</sup>

The sensitive Arctic environment likewise is uniquely susceptible to damage from the air pollution emitted by offshore oil and gas operations. Such operations are powered by large diesel combustion engines both on drilling units and associated vessels that emit large quantities of fine particulate matter, including black carbon. According to EPA, black carbon "is now

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from OCS facilities are considered part of the facilities while physically attached to them (e.g., emission associated with tanker loading would be considered part of a facility's emissions, but tanker transit emissions would not).")

<sup>37</sup> See EPA, Supplemental Statement of Basis for Proposed OCS PSD Permits for the Noble Discoverer Drillship ("Discoverer Supplemental Statement of Basis"), Table 1 at 44 (July 6, 2011) (attached as Exhibit 7).

<sup>38</sup> See 42 U.S.C. § 7627(a)(4)(C).

<sup>39</sup> Discoverer Supplemental Statement of Basis, Ex. 7, at 65 ("There is a higher incidence of outpatient visits for upper respiratory problems in the North Slope area than in the rest of Alaska.")

<sup>40</sup> *Id.*

recognized as an important climate-forcing agent with particular impact on the arctic region.”<sup>41</sup> Black carbon contributes to warming by “absorbing incoming and outgoing radiation, and also [by] darken[ing] snow and ice, which reduces the reflection of light back to space and accelerates melting.”<sup>42</sup> EPA has found that black carbon “has especially strong warming effects in the Arctic, contributing to earlier spring melting and sea ice decline.”<sup>43</sup> Indeed, black carbon pollution may be responsible for “as much as 50% of the observed retreat in Arctic sea ice . . . .”<sup>44</sup> Sources of black carbon nearer the Arctic have a stronger effect on warming there because black carbon is a regional pollutant.<sup>45</sup> The Arctic is already warming rapidly,<sup>46</sup> and unless BOEM updates and strengthens its air regulations for the Arctic, emissions of black carbon will exacerbate the detrimental changes to land, water, wildlife, and people that result from such warming.

## V. RECOMMENDED REVISIONS TO BOEM’S AIR REGULATIONS

Consistent with the stated purpose of the 2011 appropriations rider and Senator’s Murkowski’s representations concerning the legislation, BOEM should update its regulations to protect offshore air quality to the same degree as EPA’s regulations. To this end, BOEM’s current regulations should be amended with provisions that, at least for the Alaska OCS, require offshore sources: (i) to account for the collective emissions of a drilling platform or drillship as well as its associated fleet; (ii) to assess and require compliance with all ambient air quality standards over the OCS and not just at the shoreline; and (iii) to install modern technological controls to limit pollution from significant sources.

To achieve meaningful protection of Arctic air quality, BOEM must revise the components of its current air regulations that are obviously out-of-date, not supported by science, or otherwise indefensible:

1. The exemption formulas set forth in 30 C.F.R. § 550.303(d) should be eliminated from the regulations, at least for the Alaska OCS. The formulas—premised on annual emissions—are inaccurate, inappropriate for universal application to all offshore locations, and an unhelpful screening tool for the Arctic where annual emissions are concentrated within a short window of intense air-polluting activity.

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<sup>41</sup> EPA Region 10, Response to Comments for OCS Permit to Construct and Title V Air Quality Operating Permit, Conical Drilling Unit Kulluk (Oct. 21, 2011) (“Kulluk Response to Comments”), at J000338 (attached as Exhibit 8).

<sup>42</sup> EPA, Report to Congress on Black Carbon External Peer Review Draft (Mar. 2011) (“Black Carbon Report”), at 12-1 (attached as Ex. 9).

<sup>43</sup> *Id.* at Ex-4.

<sup>44</sup> *Id.* at 2-40.

<sup>45</sup> *Id.* at 12-1 to 12-2.

<sup>46</sup> Kulluk Response to Comments, Ex. 8, at J000338; Black Carbon Report, Ex. 9, 2-40; Gore, Anne E., and Miller, Pamela A., “Broken Promises: The Reality of Oil Development in America’s Arctic (Sept. 2009), at 40-42 (attached as Exhibit 10).

2. All proposed offshore drilling operations should be required to demonstrate compliance with the national ambient air quality standards and any other state or federal ambient standards over affected federal waters and not just at the shoreline. To fully protect Arctic air quality, air impacts should be assessed in the immediate vicinity of the operations, ideally at the hull of the drilling platform or drillship. For example, for Shell's recent operations, EPA assessed air impacts alternatively at the hull of the drillship and at 500 meters—a distance corresponding to a safety zone established by the Coast Guard.<sup>47</sup>

It is conceivable that compliance with ambient air quality standards might be determined at some other distance, either established uniformly for all offshore sources or perhaps established by criteria such as proximity to areas of subsistence use and/or other areas with overwater traffic. However, assessing compliance at further distances allows more air pollution, undermining health and environmental protections.

3. BOEM should adopt recommendation #2 to comply with the intent of the 2011 appropriations rider and to fulfill the agency's duty under OCSLA to institute necessary environmental safeguards for offshore drilling. If recommendation #2 is not adopted—though this would violate BOEM's statutory obligations—the agency must, at the very least, require all proposed offshore oil and gas operations to undertake the basic, initial modeling required by 30 C.F.R. § 550.303(e) to assess whether emissions will have a “significant” impact on state air quality.
  - a. To assess whether emissions will have a “significant” impact, BOEM should use the significance levels established by current EPA regulation and guidance. The 30 year-old significance levels presently set forth in BOEM's regulations at 30 C.F.R. § 550.303(e) must be scrapped. It may be helpful to update 30 C.F.R. § 550.303(e) with a cross-reference to EPA's regulations and guidance that would be self-updating.
  - b. Additionally, 30 C.F.R. § 550.303(e) should be amended to require all sources assess ambient air concentrations for comparison to the significance levels at a point seaward of the shoreline. Both state air and the state's interests in air quality extend miles seaward of the shoreline. The point at which ambient air concentrations are measured for comparison to the significance levels may be established uniformly for all offshore sources or established by criteria such as proximity to areas of subsistence use and/or other areas with overwater traffic.
  - c. If a source's emissions exceed the significance levels at the relevant point of compliance, the operator should be required to: (i) install BACT on the drilling platform/ship as well as any support vessels; and (ii) undertake any additional pollution reductions necessary to comply with all applicable state and federal ambient air quality standards, including increments, to be demonstrated with a full air impact analysis.

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<sup>47</sup> Discoverer Supplemental Statement of Basis, Ex. 7, at 26.

- BOEM’s regulations already require installation BACT by any facility that will cause an ambient air impact in excess of the significance levels;<sup>48</sup> however, because support vessels may account for the overwhelming majority of an offshore source’s emissions, the regulations should be updated to require BACT on all vessels operating within 25 miles of the drilling site. (*See* recommendation for expanded definition of “facility” below).
  - BOEM’s regulations, as currently written, could be read to allow an offshore source to push a state into non-compliance with EPA’s air quality increments—which could result in the imposition of additional control measures upon sources located onshore and/or in state waters. Accordingly, 30 C.F.R. § 550.303(i) should be updated to clarify that any source with emissions that will exceed the significant impact levels must demonstrate that its emissions will not cause or contribute to air pollution in excess of any state or national ambient air quality standard or increment.
  - Requiring such compliance with all ambient standards—including increments—will solve a related shortcoming of BOEM’s air regulations, namely, that they “were formulated primarily on a facility-specific basis: each proposed OCS facility is reviewed individually to determine whether it alone would cause significant air quality impacts.”<sup>49</sup> In other words, sources are required to model their individual impacts only, without accounting for the cumulative impacts of other nearby offshore operations. BOEM’s regional administrator may request additional information on cumulative impacts, but both the decision to request information and the decision to impose any control measures are discretionary.<sup>50</sup>
4. Whether assessing compliance with the national ambient air quality standards or conducting “significance” modeling, the operator should account for all air pollution emitted from the drilling platform or drillship as well as all support vessels to reflect accurately the true scope of an operation’s air polluting activities. To this end, the definition of “facility” set forth at 30 C.F.R. § 550.302 should be updated and expanded to include all service and support vessels operating within 25 miles of the drilling equipment. This is the approach that Congress devised for those areas of the OCS subject to the Clean Air Act.<sup>51</sup> Such a revision to BOEM’s regulations is critical as the overwhelming majority of air pollution from offshore operations in the Arctic is emitted by the associated fleet and not by the drilling platform or drillship.

Consistent with the purpose of comprehensively addressing an operation’s collective air emissions, BOEM’s revised regulations should specify that operators may not stage support vessels beyond the 25-mile radius to avoid or limit application of regulatory requirements. Operators have acknowledged that they skirt EPA’s OCS air requirements

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<sup>48</sup> *See* 30 C.F.R. § 550.303(g).

<sup>49</sup> POCS Reference Paper No. 53-5, Ex. 2 at VIII-2 (emphasis in original).

<sup>50</sup> 30 C.F.R. § 550.303(j).

<sup>51</sup> *See* 42 U.S.C. § 7627(a)(4)(C).

by staging support vessels just beyond the 25-mile radius set forth in the Clean Air Act. Such conduct results in a second, potentially sensitive OCS area that is subject to intense air pollution, noise pollution, and other impacts; potentially increases such pollution overall; and creates unnecessary logistical complications and safety risks. Revisions to BOEM’s air regulations should be structured both to account comprehensively for vessel emissions and to eliminate this evasive and harmful conduct.

5. All proposed offshore drilling operations should be required to assess potential greenhouse gas emissions. Sources with potential emissions that exceed 75,000 tons per year of CO<sub>2e</sub> (including emissions from associated vessels) should be required to apply BACT.
6. All “temporary facility” provisions should be eliminated from BOEM’s regulations. BOEM’s regulations define a “temporary facility” as an operation that is “conducted in one location for less than 3 years,”<sup>52</sup> and exempt such temporary facilities from all control requirements save for BACT.<sup>53</sup> Under this provision, all offshore operations in the Arctic could be deemed temporary and excused from the full suite of pollution control measure contemplated by the regulations because drillship operations must be suspended seasonally due to sea ice.

## VI. CONCLUSION

BOEM must update its regulations for the Alaska OCS in the manner set forth above to protect offshore air quality to the same degree as EPA’s regulations. Offshore sources must be required to meet ambient air quality standards and install technological controls within Arctic waters.

Respectfully submitted,

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<sup>52</sup> 30 C.F.R. § 550.302 (definition of “Temporary facility”).

<sup>53</sup> *Id.* § 550.303(h).

## TABLE OF EXHIBITS

Ex. No.	Description
1	Alex DeMarban, “Murkowski aims to transfer EPA's air permitting clout,” Alaska Dispatch, Dec. 15, 2011.
2	Department of the Interior, POCS Reference Paper No. 53-5: Air Quality Impact of Proposed OCS Sale No. 53 Offshore Central and Northern California SUPPLEMENT (1980).
3	Environmental Protection Agency (EPA) Region 10, Supplemental Environmental Justice Analysis for proposed Outer Continental Shelf PSD Permit No. R10OCS/PSD-AK-2010-01 & Permit No. R10OCS/PSD-AK-09-01.
4	Letter from Judith E. Ayres, EPA Regional Administrator, to The Honorable John D. Dingell, Mar. 26, 1987.
5	Memorandum from Stephen D. Page to Regional Air Division Directors re Implementation of the 1-hour NO <sub>2</sub> NAAQS (June 29, 2010)
6	Memorandum from Stephen D. Page to Regional Air Division Directors re Implementation of the 1-hour SO <sub>2</sub> NAAQS (Aug. 23, 2010)
7	EPA, Supplemental Statement of Basis for Proposed OCS PSD Permits for the Noble Discoverer Drillship (July 6, 2011).
8	EPA Region 10, Response to Comments for OCS Permit to Construct and Title V Air Quality Operating Permit, Conical Drilling Unit Kulluk (Oct. 21, 2011).
9	EPA, Report to Congress on Black Carbon External Peer Review Draft (Mar. 2011)
10	Gore, Anne E., and Miller, Pamela A., “Broken Promises: The Reality of Oil Development in America’s Arctic (Sept. 2009).