



VIA EMAIL to R10ocsairpermits@epa.gov

February 17, 2010

EPA Region 10
Shell Chukchi OCS Air Permit
1200 6th Ave., Ste. 900, AWT-107
Seattle, Washington 98101

Re: New Modified Air Quality Permit Proposed for Shell to Operate the Frontier Discoverer Drillship in the Chukchi Sea, Alaska; Permit Number R10OCS/PSD-AK-09-01

The Center for Biological Diversity (the “Center”) submits the following comments to the New Modified Air Quality Permit Proposed for Shell to Operate the Frontier Discoverer Drillship in the Chukchi Sea, Alaska, Permit Number R10OCS/PSD-AK-09-01 (“Second Proposed Permit”). The Center is a non-profit environmental organization dedicated to the protection of imperiled species, their habitats, and the environment through science, policy, and environmental law. The Center has some 240,000 members and online activists throughout the United States. These comments are filed on behalf of our members and staff with a vital interest in reducing greenhouse gases and other air pollutants.

I. Introduction

These comments respond to the Second Proposed Permit for Shell Gulf of Mexico, Inc. (“Shell”) under the Clean Air Act’s (“CAA”) New Source Review/Prevention of Significant Deterioration (“NSR/PSD”) program to allow Shell to operate the Frontier Discoverer drillship and its fleet of auxiliary vessels for a multi-year exploratory oil and gas drilling program within its current lease blocks from lease sale 193 on the Chukchi Sea outer continental shelf (“OCS”), beyond 25 miles from Alaska’s seaward boundary. Because these exploratory drilling operations would have the potential to emit in excess of 250 tons per year (“tpy”) of nitrogen oxides (“NO_x”) and carbon monoxide (“CO”), and would exceed the significance thresholds for sulfur dioxide (“SO₂”), volatile organic compounds (“VOC”), CO, NO_x, PM, PM_{2.5} and PM₁₀, they would constitute a “major emitting facility” subject to EPA regulation. 42 U.S.C. § 7479(a). EPA must thus ensure that the operations meet the requirements of the PSD program under Section 328 of the CAA, 42 U.S.C. § 7626, and its implementing OCS regulations at 40 C.F.R. Part 55. Shell must use best available control technology (“BACT”) to limit emissions from the operations “for each pollutant subject to regulation under [the CAA].” 42 U.S.C. § 7475.

EPA first proposed a permit for Shell for these purposes on August 20, 2009. On behalf

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of the Center and other organizations, Earthjustice submitted comments to this first draft permit on October 20, 2009, pointing out numerous deficiencies. That letter is now part of the administrative record herein. The Center submitted a separate comment letter to EPA on October 20, 2009, commenting on EPA's duty to require Shell to use BACT to limit the emissions not just of traditional pollutants but also of carbon dioxide ("CO₂") from Shell's proposed major emitting facility (the "October 2009 Comment Letter"); that letter is also part of the administrative record. Unfortunately, in this Second Proposed Permit EPA has failed to respond in any way to the Center's October 2009 Comment Letter, and has failed to address the significant issue of controlling the facility's CO₂ emissions. For that reason, the Center now submits the instant additional comment letter and specifically incorporates herein by reference its October 2009 Comment Letter. In addition, the Center joins Earthjustice in its comment letter dated February 17, 2010, which also responds to the Second Proposed Permit. The Center requests that EPA correct each of the deficiencies in the Second Proposed Permit discussed in the two joint comment letters for the reasons stated therein. In addition, the Center respectfully requests that EPA now address and remediate the permit deficiencies pointed out herein and in the October 2009 Comment Letter and require, as a permit condition, that CO₂ emissions from the facility be controlled by means of BACT.

II. EPA Must Require Shell to Use BACT to Limit CO₂ Emissions From This Major Emitting Facility

The PSD program is a preconstruction review and permitting program that applies to new major stationary sources with the potential to emit in excess of 250 tpy of any pollutant in areas in attainment of national air quality standards. Sections 165 and 169(1) of the CAA, 42 U.S.C. §§ 7475, 7479(1). Shell's operations require a PSD permit because they emit in excess of 250 tpy of NO_x and CO, and exceed the significant emission rates for CO, SO₂, VOC, NO_x, PM, PM_{2.5} and PM₁₀; thus, Shell must apply BACT to those emissions. *Id.* However, Shell's operations are subject to BACT "for *each pollutant subject to regulation*" emitted from its facility under Section 165(a)(4) of the CAA, 42 U.S.C. § 7475(a)(4) (emphasis added). Because Shell's operations have the potential to emit in excess of 250 tpy of CO₂, the emissions trigger point set forth in Section 165(a)(4), Shell's Second Proposed Permit must also analyze and apply BACT for this pollutant. The Second Proposed Permit cannot be issued until this error has been corrected.

A. Shell's Drilling Operations Emit in Excess of 250 tpy of CO₂

Shell has estimated the amount of CO₂ its exploratory drilling operations will have the potential to emit as follows: "Annual emissions of carbon dioxide from the Discoverer alone are estimated to be approximately 22,500 tons/year. Potential annual emissions of carbon dioxide from the Discoverer and its associated fleet are estimated to be approximately 94,000 tons/year. These estimates are based on a generic diesel fuel and refuse combustion CO₂ emission factors obtained from AP-42." Shell's Outer Continental Shelf Pre-Construction Air Permit Application, Frontier Discoverer Beaufort Sea Exploration Drilling Program, January 2010 at 98 (Air Permit

Application).¹ As stated in the Joint Comment Letter, and as acknowledged by EPA in the Statement of Basis for Proposed Outer Continental Shelf Prevention of Significant Deterioration Permit No. R10OCS/PSD-AK-09-01 (“Statement of Basis”) at 22, in calculating the operation’s potential to emit, Shell must include potential emissions from both the drill ship and each of the supporting vessels in the drill fleet when they are within 25 miles of the source. *See, e.g.*, 42 U.S.C. § 7627(a)(4)(C); 40 C.F.R. § 55.2.² EPA has also stated that, “[i]n determining the PTE for Shell’s Chukchi Sea Exploration drilling program, EPA included the potential emissions from the Discoverer while operating as an OCS source, as well as the potential emissions from the Associated Fleet – the ice breaker, the anchor handler/icebreaker, the supply ship, and the OSR fleet – when operating within 25 miles of the Discoverer while the Discoverer is an OCS source.” Statement of Basis at 23. As EPA has thus clearly recognized, a calculation of CO₂ emissions “from the Discoverer alone” is legally insufficient to correctly calculate emissions from the drilling operations as a whole. Because most of the emissions from Shell’s proposed drilling operations come from the associated support vessels, not from the drill ship itself, the correct measure of the drilling operations’ potential to emit is 94,000 tpy of CO₂. It is EPA’s obligation to determine the source’s true potential to emit this pollutant as required by statute, and EPA must do so without any equivocation in any final permit. *See, e.g.*, 42 U.S.C. §§ 7475, 7479(1). In any case, these CO₂ emissions far exceed the statutory threshold of 250 tpy set forth in Section 169(1). 42 U.S.C. §§ 7479(1), 7475(a)(4).

B. CO₂ Is a “Pollutant”

It is now beyond dispute that CO₂ is a “pollutant” under the CAA. The CAA defines “air pollutant” as “[a]ny air pollution agent or combination of such agents, including any physical, chemical, biological, [and] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air.” Section 302 (a), 42 U.S.C. § 7602(g). In *Massachusetts v. EPA*, 549 U.S. 497, 529 (2007), the Supreme Court held that greenhouse gases, including CO₂, are “without a doubt” physical chemical substances emitted into the ambient air and thus pollutants. It further determined that EPA “has the statutory authority to regulate the emission” of greenhouse gases such as CO₂. *Id.* at 532. At a minimum, then, EPA is *authorized* to regulate and require the application of BACT for CO₂ to Shell’s Draft Permit. Where such authorization exists, EPA’s “reasons for action or inaction must conform to the authorizing statute. Under the clear terms of the Clean Air Act, EPA can avoid taking further action only if it determines that

¹ Shell states that, except for an additional tug boat and barge and one slightly larger oil spill response work boat, the emission units addressed in its Beaufort application are the same as those proposed for operation in the Chukchi Sea. Shell’s January 2010 Beaufort PSD Permit Application at 1.

² Section 328 states in relevant part: “The terms ‘Outer Continental Shelf source’ and ‘OCS’ source’ include any equipment, activity, or facility which (i) emits or has the potential to emit any air pollutant . . . and (iii) is located on the Outer Continental Shelf or in or on waters above the Outer Continental Shelf. Such activities include, but are not limited to, platform and drill ship exploration, . . . and transportation. For purposes of this subsection, *emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source.*” 42 U.S.C. § 7627(4)(C) (emphasis added).

greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do.” *Id.* at 533. EPA responded to the Supreme Court in its Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule, 74 Fed. Reg. 66496 (December 15, 2009) (“Endangerment Finding”), and stated unequivocally that greenhouse gases, including CO₂, indeed are air pollutants that contribute to global warming and endanger public health and safety. Hence, EPA cannot reasonably exercise its authority except by regulating CO₂. We urge EPA to do so immediately in light of the urgency of the global warming issue, as extensively discussed in the Endangerment Finding and its supporting documents. We submit, however, that EPA has not only the authority to take this action, but is statutorily required to do so here.

C. CO₂ Is “Subject to Regulation”

Sections 165(a)(4) and 169(3) mandate the application of BACT for “each pollutant subject to regulation under this Act.” 42 U.S.C. §§ 7475(a)(4), 7479(3). *See also* 40 C.F.R. § 52.21(b)(50)(iv) (a “regulated NSR pollutant” is “[a]ny pollutant that otherwise is subject to regulation under the Act”). Because EPA has indeed “regulated” CO₂ in numerous ways, the plain meaning of the term requires that BACT must be applied.

In our October 2009 Comment Letter, we fully discussed the interpretation of the phrase “subject to regulation” given by former Administrator Johnson and presently retained by EPA, which would evade the duty immediately to require permitting for CO₂ emissions. Stephen L. Johnson, *EPA’s Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program* (Dec. 18, 2008) (“Johnson Memo”); Prevention of Significant Deterioration (PSD): Reconsideration of Interpretation of Regulations that Determine Pollutant Covered by the Federal PSD Permit Program 74 Fed. Reg. 51535 (Oct. 7, 2009). For all of the reasons previously expressed, we believe that EPA’s interpretation is erroneous as neither the plain meaning of the statute nor the purpose and intent of the Clean Air Act allows EPA’s redefinition; in any event, as also fully set forth in the October 2009 Comment Letter, even if EPA were correct, EPA has already “regulated” CO₂ by exercising “actual control” of its emission. However, assuming *arguendo* that any doubt on this issue remained, it will cease on the day that the rule to establish light-duty vehicle greenhouse gas emission standards under Section 202 of the Clean Air Act is finalized. *See Proposed Rulemaking To Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*; Proposed Rule, 74 Fed. Reg. 49454 (September 28, 2009); *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*; Proposed Rule, 74 Fed. Reg. 55292 (October 7, 2009) (the “Tailoring Rule”). In sum, there is no doubt that Shell’s permit must require the application of BACT to its CO₂ emissions.³

³ In the Tailoring Rule, EPA proposes to set the PSD threshold for CO₂ at 25,000 tpy of CO₂eq, and to base emissions calculations on actual emissions rather than the potential to emit. Since the 250 tpy threshold for PSD is established in the express statutory language of the CAA, we believe EPA lacks the authority to exempt emissions above this limit from the PSD program, and any claim otherwise would be contrary to law. In any event, because Shell’s CO₂ emissions,

III. Control Technologies to Limit CO₂ Emissions From This Major Emitting Facility are Available

As explained in our October 2009 Comment Letter, BACT exists to reduce CO₂ emissions. In light of the numerous available control technologies, EPA must analyze their application to these activities as part of the instant permitting process.

IV. Conclusion

The proposed drilling operations will send some 94,000 tpy of CO₂ into one of the world's most pristine and ecologically sensitive areas, where global warming is experienced at an accelerated pace. CO₂ is a pollutant subject to regulation under the Act, and BACT exists to limit these emissions. EPA has the legal obligation to require its application in issuing this Second Proposed Permit.

We appreciate the opportunity to comment on the Proposed Rule and thank you for your consideration of these comments.

Sincerely,



Vera P. Pardee
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
(415) 436-9682 x317
Fax: (415) 436-9683
vpardee@biologicaldiversity.org

when properly assessed, exceed 25,000 tpy by nearly four times, the BACT requirements apply regardless of the Tailoring Rule.