



VIA EMAIL to R10ocsairpermits@epa.gov

March 22, 2010

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

Re: Proposed Outer Continental Shelf Prevention of Significant Deterioration Permit to Shell Offshore Inc. – Beaufort Sea, Alaska; Permit No. R10OCS/PSD-AK-2010-01

The Center for Biological Diversity (the “Center”) submits the following comments to the Proposed Outer Continental Shelf Prevention of Significant Deterioration Permit to Shell Offshore, Inc. to permit drilling operations by the Frontier Discoverer Drillship in the Beaufort Sea, Alaska, Permit No. R10OCS/PSD-AK-2010-01 (the “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 more than 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 Proposed Permit for Shell Offshore, 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 sales 195 and 202 on the Beaufort Sea outer continental shelf (“OCS”), within and beyond 25 miles from Alaska’s seaward boundary. The drillship operations constitute a “major emitting facility” because, among other things, they would have the potential to emit in excess of 250 tons per year (“tpy”) of nitrogen oxides (“NO_x”) and carbon monoxide (“CO”). 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.

The Center has joined Earthjustice and other interested parties in their comment letter to EPA dated March 22, 2010 responding to the Proposed Permit (the “Joint Comment Letter”), and hereby incorporates it by reference as though fully set forth herein. The Center requests that EPA correct each of the deficiencies in the Proposed Permit discussed in the Joint Comment Letter for the reasons stated therein. In addition, the Center submits these additional comments in further support of EPA’s obligation to require, as part of the Proposed Permit, that carbon dioxide (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 and the application of 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 Proposed Permit must also analyze and apply BACT for this pollutant. The 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). As stated in the Joint Comment Letter, and as acknowledged by EPA in the statement of Basis Permit No. R10 OCS/PSD-AK-2010-01 (“Statement of Basis”) at 25, 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. § 55.2.¹ EPA has also stated that, “[i]n determining the PTE for Shell’s Beaufort Sea Exploration drilling program, EPA included the potential emissions from the Discoverer while operating as an OCS source, as well as the

¹ 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).

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. These emissions from the Associated Fleet when servicing or within 25 miles of the Discoverer was [sic] also included in the PTE calculation to determine assessable emissions for fee purposes.” Statement of Basis at 26.

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 must include the Discoverer as well as the associated fleet. Because it is EPA’s obligation to determine both the source’s actual emissions and true potential to emit this pollutant as required by statute, EPA must do so without any equivocation in any final permit. *See, e.g.*, 42 U.S.C. §§ 7475, 7479(1). In any case, both the CO₂ emissions from the Discoverer alone and those from the overall drilling operation 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 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 today, and must be required by this Proposed Permit.

In our letter dated October 20, 2009 commenting on Shell’s draft permit for drilling operations in the Chukchi Sea entitled, “Re: Draft Outer Continental Shelf Prevention of Significant Deterioration Permit for Shell Gulf of Mexico, Inc. for Exploration Drilling in the Chukchi Sea; Permit Number R10 OCS/PSD-AK-09-01,” now in the record for Shell’s Chukchi Sea permit with EPA Region 9 and incorporated herein as if fully set forth herewith (the “October 2009 Comment Letter”), we fully discussed the interpretation of the phrase “subject to regulation” proffered by former Administrator Johnson and presently retained by EPA. This interpretation, which would evade the duty to require permitting for CO₂ emissions immediately, impermissibly sought to redefine the phrase “subject to regulation” to mean “subject to a regulation adopted by EPA under the Clean Air Act that requires actual control of 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”) at 1; 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 (“Light Duty Vehicle Rule”) 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”). On that date, EPA will clearly have adopted a regulation “under the Clean Air Act that requires actual control of emissions,” Johnson Memo at 1, and Shell will be precluded from obtaining the instant permit unless it applies BACT to the GHG emissions from its operations.²

² 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. In recent comments, EPA Administrator Jackson has indicated that the Tailoring Rule might set an even higher threshold at 75,000 tpy. 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 addition, any attempt to redefine the term “subject to regulation” even beyond the strained and unsupported interpretation contained in the Johnson Memo so as to delay application of PSD permitting beyond the date the Light Duty Vehicle Greenhouse Gas Emission Standards become final would be equally contrary to law. In any event, because Shell’s CO₂ emissions, when

Shell's permit application seeks to evade this duty. In its Outer Continental Shelf Pre-Construction Air Permit Application, Frontier Discoverer Beaufort Sea Exploration Drilling Program (January 2010), Shell states at page 98: "Except for the October 30, 2009 reporting rule requiring certain sources with greenhouse gas (GHG) emissions over 25,000 tons per year to report their GHG emissions, *Shell recognizes that the EPA is still considering whether and how to regulate CO₂ under the Clean Air Act and that in the future the agency may establish by rule or policy a requirement that major sources perform a BACT analysis for CO₂ emissions.* EPA's current policy on GHG emissions under the PSD program is outlined in a December 18, 2008 memo by then-Administrator Stephen Johnson, titled, EPA's Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program. The memo concludes that GHGs, including CO₂, are not currently regulated under the federal PSD program. EPA is in the process of reconsidering this position, but the 2008 Johnson memo remains in effect. BACT for CO₂, therefore, is not currently required by the PSD program. At this time, Shell believes it is premature to address projected CO₂ emissions in this application for purposes of possible control." *Id.* (emphasis added).

Thus, Shell is plainly fully aware of the regulatory process currently underway at EPA. Since the Light Duty Vehicle Greenhouse Gas Emission Standards are slated to be finalized no later than March 31, 2010, it is by no means "premature" for Shell to address projected greenhouse gas emissions from its planned operations through the application of BACT. Shell should do so immediately; if Shell willfully disregards this obligation, it cannot later claim either reliance or prejudice. EPA should issue no permit to Shell that it knows will result in the violation of Clean Air Act standards EPA itself has conceded will become effective no later than at the end of this month.

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 a sharply 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 Proposed Permit.

properly assessed, exceed each of 250 tpy, 25,000 tpy and 75,000 tpy, the permitting and BACT requirements apply regardless of the Tailoring Rule.

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

Sincerely,

A handwritten signature in cursive script that reads "Vera Pardee".

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