

Docket Nos. 14-000123 and 14-000124

UNITED STATES COURT OF APPEALS
FOR THE TWELFTH CIRCUIT

SYLVANERGY, L.L.C.,
Petitioner

v.

SHANEY GRANGER, REGIONAL ADMINISTRATOR
Region XIII of the United States Environmental Protection Agency,
Respondent

AND

SAVE OUR CLIMATE, INC.,
Petitioner

v.

SHANEY GRANGER, REGIONAL ADMINISTRATOR
Region XIII of the United States Environmental Protection Agency,
Respondent

CONSOLIDATED PETITIONS FOR REVIEW
OF A FINAL ORDER OF THE REGIONAL ADMINISTRATOR

BRIEF FOR SAVE OUR CLIMATE, INC.
Petitioner

ORAL ARGUMENT REQUESTED

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TABLE OF ACRONYMS AND ABBREVIATIONS

Air Resources Board	New Union Air Resources Board
Appeals Board.....	The Environmental Appeals Board
BACT	Best Available Control Technology
CAA	Clean Air Act
CCS	Carbon Capture and Storage
CO	Carbon Monoxide
CO ₂ E	Carbon Dioxide Equivalents
Control Technology	Save Our Climate’s Proposed Facility
EPA	Environmental Protection Agency
Forestdale	Village of Forestdale
GHG	Greenhouse Gas
IGCC	Integrated Gasification Combined Cycle
NAD	Non-Applicability Determination
NO _x	Nitrogen Oxides
PM _{2.5}	Fine Particulate Matter (2.5mm)
PSD	Prevention of Significant Deterioration
SO ₂	Sulfur Dioxide
ULSD	Ultra-Low Sulfur Diesel
VOC	Volatile Organic Compound

JURISDICTIONAL STATEMENT

On June 12, 2014, Shaney Granger, Regional Administrator for Region XIII of the United States Environmental Protection Agency (EPA) granted a Prevention of Significant Deterioration (PSD) preconstruction permit to Sylvanergy for construction of a new power plant in Forestdale, New Union. The New Union Air Resources Board (Air Resources Board) is authorized by the EPA to issue PSD permits pursuant to section 165 of the Clean Air Act (CAA), 42 U.S.C. section 7475 (2015). After the Environmental Appeals Board (Appeals Board) denied their petitions for review on June 1, 2015, Sylvanergy and Save Our Climate both appealed to the United States Court of Appeals for the Twelfth Circuit, where State of New Union is located, alleging CAA violations pursuant to 42 U.S.C. section 7607(b)(1) (2015). A petition for review of a final action of the Administrator under the CAA, which is locally or regionally applicable, may be filed only in the United States Court of Appeals for the appropriate circuit. 42 U.S.C. § 7607(b)(1) (2015).

STATEMENT OF THE ISSUES

1. Does this Court have jurisdiction to review the denial of Sylvanergy's Non-Applicability Determination (NAD), an initial determination, when section 124.19 only provides judicial review for final PSD permits?
2. Whether this plant is considered a fossil-fuel fired plant exceeding 250 million British thermal units (Btu) per hour emitting more than 100 tons per year of a criteria air pollutant, has the potential to emit more than 250 tons per year of a criteria air pollutant based on its operational design, and should be subject to PSD review.
3. Whether a biomass-fueled facility must comply with Best Available Control Technology (BACT) for greenhouse gas (GHG) emissions when the power plant is already subject to PSD review resulting from emissions of criteria pollutants in excess of statutory thresholds.
4. Did the Air Resources Board conduct a proper BACT analysis, when it failed to consider gasification technology that would not redefine the power plant's business purpose under Step One, and when it failed to consider, under Step Four, the environmental impacts of monoculture forestry practices?

STATEMENT OF THE CASE

This case revolves around whether a proposed power plant in the State of New Union, which would emit harmful air pollutants such as fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and greenhouse gases (GHGs), is subject to CAA regulations. R. at 5. The main point of contention is whether Sylvanergy's proposed power plant meets the statutory definition of a major emitting facility, thus triggering regulation under a PSD review. R. at 5.

Sylvanergy petitioned the Air Resources Board for a NAD on January 15, 2013, claiming that it was not required to obtain a PSD preconstruction permit because it did not have the potential to emit pollutants in excess of the established thresholds under CAA. R. at 5-6. The Air Resources Board denied the NAD, considering the plant a fossil-fuel fired facility subject to regulation. R. at 6. As a result, Sylvanergy submitted to PSD review in order to receive construction approval. R. at 6.

Save Our Climate, a nonprofit environmental protection group, commented extensively on the Air Resources Board's draft permit before the final PSD permit was ultimately issued for the plant on June 12, 2014. R. at 6. On June 10, 2014, Save Our Climate and Sylvanergy filed petitions for review, which were ultimately denied by the Environmental Appeals Board (Appeals Board) on June 1, 2015. R. at 4. Save Our Climate timely filed this appeal on September 1, 2015. R. at 1, 3.

STATEMENT OF THE FACTS

Sylvanergy plans to construct a new power plant near the Village of Forestdale, New Union. R. at 5. The entire State of New Union is considered to be an attainment, or PSD area, under CAA. R. at 5. The proposed power plant rests on the Union Shale geological unit, which is the ideal location for carbon capture and storage. R. at 12. The facility would be a 500 million

Btu/hour biomass-fired power plant combined with wood pellet fuel production. R. at 5. It consists of a wood-fired boiler together with two ultra-low sulfur diesel start-up burners (diesel burners), each with a maximum heat input rate of 60 million Btu/hr, and an electrical generation capacity of 40 MW. R. at 5.

The power plant will emit various air pollutants, including PM_{2.5}, SO₂, NO_x, CO, VOC, and GHGs¹ measured in carbon dioxide equivalents (CO₂E)². R. at 5. At full operational design, the plant will run at 96% capacity and would emit (in tons per year): PM_{2.5}: 63; SO₂: 45; NO_x: 110; CO: 255; VOC: 40. R. at 5. The Village of Forestdale limits the facility to no more than 6,500 hours per year, which limits the plant to a capacity factor of 75%. R. at 5. This limitation is an attempt to mitigate the impact of log trucks; enforcement is vested in the building inspector of the Village of Forestdale. R. at 5. Based on this limitation, the facility would emit (in tons per year): PM_{2.5}: 47; SO₂: 32; NO_x: 80; CO: 190; VOC: 30. R. at 5. In addition, the facility would emit 350,000 tons per year of greenhouse gas emissions in carbon dioxide equivalents (CO₂E) when operating at full capacity. R. at 5.

Sylvanergy petitioned the Air Resource Board for a NAD for its plant on January 15, 2013. R. at 5. Despite Sylvanergy's claim, the Air Resources Board found that Sylvanergy's power plant is a major emitting facility because it is a fossil-fuel fired plant subject to the applicable 100-ton-per-year threshold that has the potential to emit more than the applicable threshold of 250 tons per year of a criteria pollutant. R. at 6. Additionally, the Air Resources Board reasoned that the restriction on operating hours did not constitute a "federally

¹ Greenhouse gases are comprised of: "carbon dioxide (CO₂), methane (CH₄), nitrogen dioxide (N₂O), hydrofluorocarbon (HFC)". Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. 52922, 52923 (Sept. 8, 2003).

² Carbon dioxide equivalent (CO₂E) units are calculated based on each gas's "global warming potential." *Util. Air Regulatory Grp. v. E.P.A.*, 134 S.Ct. 2427, 2437 (2014).

enforceable” limitation to reduce the facility’s potential to emit below statutory thresholds. R. at 6. After being denied the NAD, Sylvanergy applied for a PSD permit. R. at 6.

All new major emitting facilities proposed for areas designated in attainment of the National Ambient Air Quality Standards (NAAQS) established for criteria pollutants regulated under CAA are required to undergo a PSD review. R. at 4. The goal of PSD review is to preserve existing clean air resources while stimulating economic growth. R. at 4. Under a PSD review, a party wishing to construct a major emitting facility in a PSD or attainment area must first obtain preconstruction approval in the form of a PSD permit. In order to obtain such a permit, the new facility must achieve emission limits that reflect the BACT for regulated pollutants³ emitted from their facilities at significant rates. R. at 4-5.

As a condition of the PSD review, the Air Resources Board conducted a Five-Step BACT analysis evaluating available emissions control technologies. R. at 9, 10. As part of this review, the Air Resources Board required Sylvanergy to conduct a BACT review for GHG emissions. R. at 8. Sylvanergy failed to state grounds for review based on its claimed exemption of biogenic GHG emissions from PSD review, relying on EPA’s “Deferral Rule”; however, this rule expired by its own terms, and was rejected by the District of Columbia Circuit in *Center for Biological Diversity v. E.P.A.*, 722 F.3d 401 (2013). R. at 8.

The Air Resources Board failed to consider Save Our Climate’s wood gasification and steam reformation facility (control technology), which would separate out CO₂ gases for sequestration. R. at 12. Save Our Climate found that Forestdale is located on the Union Shale geologic unit, which is said to be an ideal location for a carbon capture and storage facility.⁴ R. at

³ Regulated pollutants include each pollutant subject to regulation under CAA. R. at 5.

⁴ The control technology was proposed by Save Our Climate based on a report examining the engineering and economic feasibility of a biomass gasification, steam reformation, carbon

12. Utilizing a 25-year-old EPA Workshop Manual when a new Manual was just published in 2011, the Air Resources Board hastily rejected Save Our Climate's control technology as impermissibly redefining Sylvanergy's plant, not even evaluating the technology as a BACT. R. at 9, 13. On the contrary, the Air Resources Board adopted a Sustainable Forest Plan as a BACT under Step Four, ignoring the adverse environmental impacts resulting from the use of monoculture forestry practices. R. at 12.

Save Our Climate and Sylvanergy appealed the granted PSD permit to the Environmental Appeals Board (Appeals Board) under 40 C.F.R. section 124.19, seeking to challenge both the NAD and final permit decision. R. at 4. The Appeals Board lacks jurisdiction under section 124.19 to make a decision on the NAD because it was not a final permitting decision; also Sylvanergy failed to avail itself to judicial review of the NAD under 42 U.S.C. section 7607. R. at 4, 8.

STANDARD OF REVIEW

Judicial review of the EPA's action when issuing Sylvanergy a PSD permit is governed by provisions set forth in the Administrative Procedure Act (APA). 5 U.S.C. §§ 701-706 (2015). Under the APA, the applicable standard of review is whether the EPA's action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A) (2015); *see Puerto Rico Aqueduct & Sewer Auth. v. U.S.E.P.A.*, 35 F.3d 600, 604 (1st Cir. 1994); *Puerto Rico Sun Oil Co. v. U.S.E.P.A.*, 8 F.3d 73, 77 (1st Cir. 1993).

SUMMARY OF THE ARGUMENT

This case arises under the Air Pollution Control Act, 42 U.S.C. section 7401 et seq. (2015) (CAA). Sylvanergy was denied a NAD for a power plant facility it sought to construct

sequestration, and energy production plant. The study determined that a plant was feasible using technologies already in use with a facility with an overall efficiency approximately the same as that for Sylvanergy's proposed power plant. R. at 12-13.

near the Village of Forestdale in the State of New Union. Sylvanergy then submitted to PSD review and received a permit with conditions. After issuance of the final PSD permit Sylvanergy challenged both the initial determination and the conditions in the final permit under a statute authorizing review for final permit decisions. Save Our Climate also challenged the permit conditions based on an incorrect analysis of best available control technology. Sylvanergy failed to avail itself of review by directly challenging the NAD denial. The Appeals Board correctly found that it lacked jurisdiction to review the initial determination because it was not a final permit decision and could have been directly challenged.

The Air Resources Board correctly found that Sylvanergy's power plant is a major emitting facility subject to PSD review. Because of the use of the diesel startup burners within the design of the plant, the plant is considered a fossil-fuel fired stationary source, regardless if the startup burners are not the primary source for energy production. As a stationary source, the plant cannot emit or have the potential to emit more than 100 tons per year for any criteria air pollutant. Here, the power plant exceeds this requirement for at least one pollutant. Additionally, any source is subject to PSD review if it has the potential to emit more than 250 tons per year of any criteria air pollutant; the plant does have the potential to emit at this level. Furthermore, even though there is a limitation on the operational hours by the Village of Forestdale, that limitation does not apply to the potential to emit more than 250 tons per year.

Sylvanergy also challenges the application of BACT for GHG emissions, claiming an exemption should apply to because its plant would only produce biogenic carbon from burning wood. However, the Appeals Board correctly held that BACT was applicable to GHG emissions for the facility because recent case law had struck down the claimed exemption, and regardless, it would have expired under its own terms. Sylvanergy's plant is subject to PSD review for other

criteria air pollutants and therefore must conduct BACT review for GHG emissions because it emits them in significant quantities.

The Air Resources Board dismissed Save Our Climate's wood gasification and partial carbon capture control technology as a BACT. Save Our Climate's proposed control technology should not be dismissed under the all encompassing, wide net of a Step One BACT analysis. The control technology that Save Our Climate proposes has been recognized by the EPA as an option under Step One of a BACT analysis. Additionally, wood is still utilized as a fuel source the control technology does not fundamentally redefine Sylvanergy's plant or business purpose. Conversely, the Air Resources Board should have eliminated the Sustainable Forest Plan under Step Four of the BACT analysis, as a result of the significant environmental impacts of the plan. Monoculture forestry practices promote plant disease and are detrimental to the environment.

ARGUMENT

I. Sylvanergy failed to avail itself of direct judicial review for its denied NAD application and now cannot challenge the NAD under a statute that provides review for final PSD permit decisions, because an applicability decision is not a final permit decision.

This Court lacks jurisdiction to review a NAD because this initial determination is not a final agency decision on the permit. Sylvanergy should have directly challenged the applicability determination in a Federal Appellate Court as a “final action” under 42 U.S.C. section 7607(b)(1) and seeking review under 40 C.F.R. section 124.19(b)(1) is improper. Sylvanergy failed to bring its action in the appropriate venue and this court lacks jurisdiction to decide an issue other than a final decision on the PSD permit. Sylvanergy now seeks to collaterally challenge the final permit without statutory basis. The Appeals Board correctly determined that Sylvanergy lacks jurisdiction to challenge the NAD and this Court should affirm their decision.

R. at 8.

Under the CAA, a petition for review to the United States Court of Appeals may be filed for review of any final action of the administrator. 42 U.S.C. § 7607 (2015). Similarly, under section 704 of the Administrative Procedures Act any “[a]gency action made reviewable by statute and *final agency action* for which there is no other adequate remedy in a court are subject to judicial review. A preliminary, procedural, or intermediate agency action or ruling *not directly reviewable* is subject to review on the review of the final agency action.” 5 U.S.C. § 704 (2015) (emphasis added).

In addition to the opportunities for judicial review afforded under 42 U.S.C. section 7607(b)(1) and 5 U.S.C. section 704, EPA regulations specifically provide for review of final PSD permits. 40 C.F.R. § 124.19 (2015). Section 124.19 provides for judicial review of a “PSD final permit decision.” Section 124.2 defines a “final permit decision” as occurring after agency review is exhausted and a permit has been issued. 40 C.F.R. § 124.2 (2015).

When EPA promulgated section 124.19 it specifically stated that PSD applicability determinations should be considered reviewable as “final agency actions.” 45 Fed. Reg. 98, 33413 (May 19, 1980). Noting the ripeness of an applicability determination for review the EPA “because of the consequences of applicability determinations for a source (for example, the triggering of a one-year monitoring requirement under CAA section 165(e)(2)) and the infrequency of factual questions, EPA has decided that for reasons of fairness and efficiency these determinations should be treated as final agency action.” 45 Fed. Reg. 98, 33413 (May 19, 1980).

In *Puerto Rican Cement Co. v. U.S.E.P.A.*, the First Circuit held that EPA’s decision to deny a NAD for a PSD permit was sufficiently final to warrant review under section 7607(b)(1). 889 F.2d 292, 296 (1st Cir. 1989). There, a company was seeking to construct a new industrial

kiln that the EPA determined would trigger PSD review. *Id.* at 293. The company sought to challenge the applicability determination directly through the court of appeals, without submitting to PSD review. *Id.* at 294. The court held that review of the applicability determination was warranted as a “final action” because it was plainly separate from and collateral to the matters that would be considered during the PSD review process. *Id.* at 295. The court also noted that submitting to PSD review “cannot give the Company precisely what it wants without a few conditions, such as a use of “best available” anti-pollution technology, that it may not want.” *Id.* Analyzing the finality of a NAD through three different legal theories, the court held: “whether one views the statutory ‘finality’ problem through the lens of ‘ripeness,’ of ‘exhaustion of remedies,’ or of ‘interlocutory decision,’ the EPA determination before us is sufficiently ‘final’ to warrant review under 42 U.S.C. § 7607(b)(1).” *Puerto Rican Cement Co.*, 889 F.2d at 296.

In *Hawaiian Electric Co., v. U.S.E.P.A.*, the Ninth Circuit held that an applicability determination, finding that a major modification to a facility triggers PSD compliance, is reviewable under section 7607(b)(1). 723 F.2d 1440 (9th Cir. 1984). The Ninth Circuit looked to the Supreme Court’s decision in *Abbott Labs. v. Gardner*, 387 U.S. 136 (1967), and articulated three criteria for assessing the fitness for review under section 7607, looking to the definitiveness of the decision, the development of the record to a point adequate for review, and that the decision will sufficiently impact an interest of the party. *Hawaiian Elec. Co.*, 723 F.2d at 1442-43. In concluding review was appropriate as a final action, the court found that the decision was definitive and the record was sufficient because the issues were simple and the record straightforward. *Id.* at 1443. Additionally, the court found that the company’s interest would be impacted because an applicability determination would trigger expensive regulations of the

company's operation. *Id.* The court reasoned "EPA's position that its application of the major modification definition [triggering PSD review] is included within the meaning of 'any other final action' seems correct." *Id.* at 1442. The court noted:

Although . . . intermediate actions are reviewable only on review of the final agency action, we have concluded that application of the major modification definition is a final action and that it is appropriate for us to review that action precisely in order to avoid forcing [the company] to comply with a ruling it believes unlawful.

Id. at 1444.

In a foundational decision that clarified the meaning of "any other final action of the administrator" contained in section 7607(b)(1) of the CAA, the Court in *Harrison v. PPG Industries, Inc.*, first determined the phrase applied to an initial applicability determination for New Source Performance Standards under the CAA. 446 U.S. 578, 580 (1980). There, a company challenged the applicability of "new source" standards to its proposed fossil fuel boilers and sought to challenge the action in federal appeals court as a "final action of the administrator" warranting judicial review under section 7607(b)(1). *Id.* at 584-85. In determining the meaning of section 7607(b)(1), the Court found "nothing in the legislative history to support a conclusion that the phrase, 'any other final action,' in [this section] means anything other than what it says." *Id.* at 589.

Turning now to Sylvanergy's contested permit, the Appeals Board correctly reasoned that it did not have jurisdiction to review the applicability determination for Sylvanergy's power plant because it was not a "final agency decision on the permit." R 7-8. Although the language is ambiguous, courts have consistently held that an applicability decision is a "final action" under 42 U.S.C. 7607, and immediately reviewable by the appellate court. By failing to directly attack the applicability decision Sylvanergy cannot now collaterally challenge the conditions contained in the final PSD permit through this review process. If Sylvanergy wished to challenge the

agencies final action regarding PSD applicability, then it appealed the wrong decision and now cannot challenge that determination under a regulatory provision providing review for final *permit* decisions.

Looking at the factors the court discussed in *Hawaiian Electric Co.*, the NAD is a definitive decision regarding applicability comparable to the applicability of New Source Performance Standards the court held definitive in *Hawaiian Electric. Co.* Furthermore, the legal issues and record are straightforward and require no further development of facts, but simply an application of the law to those facts already submitted for the applicability determination. Finally, there are real consequences flowing from the applicability determination such as triggering BACT requirements and monitoring requirements, and so this decision was ripe for review under 42 U.S.C. section 7607(b)(1). *See Puerto Rican Cement Co.*, 889 F.2d at 295.

Adding weight to the contention that the NAD was a final agency action is the EPA's specific language on the ripeness of an applicability decision for review. Whereas the Court in *Harrison* could find no support in the history of section 7607 to bolster its holding that an applicability determination regarding New Source Performance Standards was a final agency action, we have the EPA speaking directly on the issue of a PSD applicability determination in its Federal Register comments for section 124.19 stating an applicability determination is a final agency action ripe for review. 45 Fed. Reg. 98, 33413 (May 19, 1980).⁵ This only confirms that the NAD should have been directly challenged and so review under section 124.19 would be improper.

Although section 704 seems to offer support for Sylvanergy, stating "preliminary, procedural, or intermediate agency action or ruling . . . is subject to review on the review of the

⁵ This notice was published in the Federal Register just eight days prior to the *Harrison* decision.

final agency action,” this statute clearly states that these intermediate decisions may only be reviewed where they are not independently reviewable. 5 U.S.C. § 704 (2015) (emphasis added). Reading this section along with the EPA’s interpretation that a NAD is appealable as a final agency action reveals Sylvanergy’s argument is without merit. As noted above, the NAD is directly reviewable, and so Sylvanergy’s claim that review of the initial applicability decision is proper before this Court is directly contradicted by the clear language of the statute.

The Appeals Board correctly held that a NAD is not a final agency decision on the permit and Sylvanergy should have directly appealed that determination to a federal appellate court. This decision now cannot be challenged under 40 C.F.R. section 124.19 because it is not a final decision on the permit. Sylvanergy should have directly challenged the NAD as final agency action under section 7607(b)(1). This Court should therefore affirm the EAB’s decision and find that Sylvanergy lacks jurisdiction to challenge the NAD in this action.

II. Sylvanergy’s facility is a major emitting facility subject to PSD review because it has the potential to emit more than 100 tons per year of nitrogen oxides and carbon monoxide as a fossil-fuel fired source exceeding 250 million Btu per hour, and has the potential to emit more than 250 tons per year of carbon monoxide.

The goal of the PSD program under CAA is to prevent air quality from deteriorating in areas where it exceeds statutory minimums. 42 U.S.C. §§ 7407, 7471 (2015). PSD review is required for new sources of air pollution in attainment areas to ensure that the NAAQS can still be maintained within that area. R. at 4. The State of New Union is already in attainment and considered a PSD area under CAA. R. at 5. Attainment areas are those that meet NAAQS for CAA regulated criteria air pollutants. 42 U.S.C. § 7407(d)(1)(A)(ii) (2015); R. at 4. State implementation plans must contain emission limitations, and any other necessary measures, to prevent significant deterioration of air quality in each attainment area within the state. 42 U.S.C. § 7471 (2015). By requiring a PSD review, the goal was to maintain a proper balance between

preserving existing clean air resources and economic growth. R. at 4; 42 U.S.C. § 7401 (2015). Because preserving existing clean air resources is based on the current levels of air quality, PSD review is applied to all new major emitting facilities. R. at 4; 42 U.S.C. § 7475 (2015).

A major emitting facility would emit, or have the potential to emit, 100 or more tons per year of any regulated air pollutant. The CAA has an inclusive list of stationary sources that must be regulated by PSD review, including “fossil-fuel fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input, [and] fossil-fuel boilers of more than two hundred and fifty million British thermal units per hour heat input”. 42 U.S.C. § 7479(1) (2015). A major emitting facility can also be any source that has the potential to emit 250 tons per year or more of any regulated air pollutant. *Id.*

The air pollutants emitted by the Sylvanergy plant are regulated by CAA. PM_{2.5}, CO, NO_x, and SO₂ are all commonly found air pollutants, otherwise known as criteria pollutants. *Six Common Air Pollutants: What are the Six Common Air Pollutants?*, EPA (Sept. 18, 2015), <http://www3.epa.gov/airquality/urbanair/>. These pollutants fall under primary NAAQS, and provide public health protection, including protecting the health of "sensitive" populations. *Technology Transfer Network: National Ambient Air Quality Standards (NAAQS)*, EPA (Oct. 6, 2015), <http://www3.epa.gov/ttn/naaqs/criteria.html>.

In order to determine whether Sylvanergy’s power plant is a major emitting facility, the type of stationary source must be determined, and whether the source has the potential to emit more than 250 tons per year of any air pollutant.

- A. The Sylvanergy facility is a fossil-fuel fired source subject to the 100 ton-per-year threshold because even though the facility's primary reliance for energy production is on wood biomass, the facility will include diesel start-up burners, which designate the facility as a fossil-fuel fired facility.

When a facility has incorporated a particular type of fuel, such as startup applications, into one aspect of the project design this suggests that “a fuel is ‘available’ to a permit applicant”, and therefore is considered a fossil-fuel fired facility that is subject to PSD review.

U.S. EPA: Office of Air Quality Planning and Standards, *PSD and Title V Permitting Guidance for Greenhouse Gases*, EPA-457/B-11-001, 28 (Mar. 2011) (hereinafter “2011 Report”).

Sylvanergy's plant consists of a wood-fired boiler with diesel startup burners. R. at 5. Because of the diesel startup burners and the boiler, the plant is categorized as a fossil-fuel boiler stationary source. Statutory definition requires that the plant must have a heat input rate of more than 250 million Btu/hr to be subject to PSD review. Even though each start-up burners itself will only emit a maximum heat input rate of 60 million Btu/hr, resulting in a total of 120 million Btu/hr, the entire facility will have a 500 million Btu/hr heat input, which exceeds the 250 million Btu/hr limit in the regulation.

In order to receive a preconstruction permit, the plant cannot emit more than 100 tons per year of any regulated air pollutant. When the power plant is operating at 96% capacity, multiple air pollutants emit more than 100 tons per year. R. at 5. Even when it is operating at 75% capacity, there are still air pollutants being emitted in excess of 100 tons per year. R. at 5. The power plant is violating the PSD permit by emitting more than 100 tons per year of NO_x (110 per year) and CO (255 per year) at 96% capacity. R. at 5. Even when the plant is functioning at 75% capacity with the limitation in place, it is still violating the PSD permit by emitting more than 100 tons per year of CO (190 tons per year). R. at 5. The power plant will be emitting at least one air pollutant over the 100 tons per year threshold at any of its anticipated capacity factors. At its

full operational capacity of 95%, the plant has to potential to emit more than 100 tons per year of two air pollutants. Therefore, the power plant must submit to PSD review.

- B. The Sylvanergy facility has the potential to emit more than 250 tons per year of CO because the facility exceeds 250 tons per year of carbon monoxide when operating at maximum capacity as designed, and even though the limitations imposed by the Village of Forestdale in the site plan approval are federally enforceable, the limitations fall outside the scope of what is federally enforceable.

The PSD regulations define the term “potential to emit” as

the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation . . . shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

40 C.F.R. § 52.21(b)(4) (2015).

- i. The potential to emit is calculated using the maximum capacity of a stationary source under its physical and operational design, without any secondary limitations.*

The potential to emit is 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) (2015). The maximum emissions generated occur when the source is operated within the constraints of its design. *U.S. v. Louisiana-Pac. Corp.*, 682 F. Supp. 1141, 1158 (D. Colo. 1988). The potential to emit is not the maximum emissions a source can possibly generate regardless of whether it is being operated as designed. *Id.* A plain reading of the language of the regulation indicates “test data must meet two requirements before it may properly be used in the calculation of a source’s potential to emit. First, the unit being tested must be operating during the test in the manner in which it is designed to operate. Second, within that constraint, the unit must be operated at maximum capacity, or ‘full throttle,’ throughout the test.” *Id.*

While Sylvanergy does have local limitations placed on the facility, the test requires the maximum capacity under its physical and operational design. Under the first requirement, the unit must be operating in the manner in which it's designed to operate. When the plant is operating at its designed capacity, it is at the 96% capacity factor, which emits 255 tons per year of CO, over the 250 tons per year requirement for "potential to emit". R. at 5; 42 U.S.C. § 7479(1) (2015). The second condition requires the facility to operate at maximum capacity. Even though the Forestdale limitation puts the facility capacity factor at 75% where the carbon monoxide emissions are only at 190 tons per year, the facility's physical and operational design emits 255 tons per year of CO. R. at 5.

ii. Although permit limitations should be treated as part of the design if it is federally enforceable, the operational limitation was adopted by the Village of Forestdale, not the State of New Union, which is not under EPA authorization, and impacts of log trucks constitute secondary emissions which cannot be used to calculate potential to emit.

The PSD regulations address limitations that are imposed on stationary sources. "Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation . . . shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable." 40 C.F.R. § 52.21(b)(4) (2015). The term "federally enforceable" refers to all limitations and conditions which are enforceable by the EPA.

Federally enforceable limitations and conditions are those that are enforceable by the EPA. 40 C.F.R. § 52.21(b)(17) (2015). These are requirements or limitations contained in, or created pursuant to, any State Implementation Plan (SIP), whether it is a SIP to enforce NAAQS or a SIP to enforce the PSD program.⁶ *Louisiana-Pac. Corp.*, 682 F. Supp. at 1159. Case law

⁶ Each State is responsible for submitting a State Implementation Plan (SIP) specifying how national primary and secondary ambient air quality standards will be achieved and maintained

supports that *state* restrictions on emissions are federally enforceable. *Id.* (emphasis added); *see also Friends of the Earth v. Potomac Elec. Power Co.*, 419 F. Supp. 528, 533 (D.C. Cir. 1976) (holding that state-adopted emission limitations which are more stringent than necessary to meet the federal ambient air standards are federally enforceable).

Only federally enforceable permit conditions which restrict hours of operation or amounts of material combusted or produced can be properly included in the calculation of “potential to emit”. *Louisiana-Pac. Corp.*, 682 F. Supp. at 1160. The limitations placed on Sylvanergy are part of the site plan approval process for the Village of Forestdale, and are only enforceable by the building inspector of that village. R. at 5. The court in *Louisiana-Pacific Corp.* found that all limitations and conditions that can be enforced by the EPA are deemed federally enforceable. 682 F. Supp. at 1159. Decisions made by the Village of Forestdale are not federally enforceable because only the Village building inspector can enforce the limitation, not the EPA. R. at 5. Because the EPA delegation is with the Air Resources Board, and not the Village of Forestdale, the EPA does not have authorization to enforce Village regulations or limitations. R. at 2. Therefore, the Air Resources Board correctly determined that this operational restriction is not federally enforceable. R. at 6.

Even if this limitation on operational hours is federally enforceable, the limitation here on the plant is to mitigate the impacts of log trucks, not the emissions of the facility, and therefore cannot be used when calculating potential to emit. R. at 5. Secondary emissions are not considered when determining the potential to emit of a source. 40 C.F.R. § 52.21(b)(4) (2015). The effect of reducing the operational facility to 75% and thus reducing the CO emissions to

within each air quality control region in the state. 42 U.S.C. § 7407(a) (2015). SIPs enforcing NAAQS must meet a series of statutory criteria in order to be approved by the EPA. 42. U.S.C. § 7410 (2015).

below 250 tons per year, is merely a secondary effect of the Forestdale restriction. Sylvanergy argues that the Forestdale limitation on hours of operation is to reduce the potential to emit CO below the threshold. R. at 6. However, the Village of Forestdale adopted the limitation for the sole purpose of mitigating the impact of log trucks bringing raw logs to the facility. R. at 5. There is no other explanation provided for the hours limitation, nor is there any explanation of the impact of the log trucks. The restriction was not imposed because the facility's potential to emit harmful air pollutants is greater than 250 tons per year. R. at 5. While Sylvanergy could argue that the impacts from the log trucks are designed to reduce emissions and that the limitation was created to enforce national ambient standards in general in the state, there are not facts to suggest Forestdale imposed the permit condition because of log truck emissions. The Order Denying Review merely states that Forestdale was just generally mitigating the impacts of the log trucks.

Therefore, even though the limitation should be part of the operational design of the facility, the limitation does not fall in line with the intent of the statute or the reasoning behind including operational limitations in the calculation of "potential to emit", and the power plant does have the potential to emit more than 250 tons per year of CO.

III. Sylvanergy's power plant is subject to BACT review for GHGs because it qualifies as an "anyway" source for emissions of carbon monoxide, and its emissions of GHGs are not *de minimis*.

Sylvanergy's power plant is subject to BACT review under PSD for its emissions of GHGs, despite its reliance on biomass fuel because the plant qualifies as an "anyway" source. Sylvanergy's proposed power plant will be considered a major emitting facility as a result of its excessive CO emissions and is therefore subject to PSD review anyway. Because Sylvanergy's power plant is classified as a major emitting facility, it must meet BACT compliance for *all* pollutants regulated under the CAA that are emitted in significant quantities, including GHGs.

Although the power plant could not trigger review based solely on potential to emit GHGs, the status of GHGs as a regulated pollutant means that Sylvanergy must achieve BACT.

Under 42 U.S.C. section 7475, “[a] proposed facility is subject to the best available control technology for *each pollutant subject to regulation* under [the CAA] emitted from, or which results from, such facility.” (emphasis added). The long road to regulating GHGs under the CAA began in 2003 when the EPA denied a petition by environmental advocates urging the EPA exercise its authority under section 202(a)(1)⁷ of the CAA to regulate GHGs emission in vehicles. Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. 52922-02 (Sep. 8, 2003). The EPA’s position was that it lacked the authority to regulate GHGs as an “air pollutant” and that regulating GHGs under the act was not “appropriate” based on policy concerns associated with addressing global climate change. *Id.* at 52925.

In response to the EPA’s denial of the petition for rulemaking, various cities and the State of Massachusetts filed a petition with the Court of Appeals for the District of Columbia Circuit, lost, and then appealed to the Supreme Court which granted certiorari. *Massachusetts v. E.P.A.*, 415 F.3d 50, 61 (D.C. Cir. 2005); *Massachusetts v. E.P.A.*, 548 U.S. 903 (2006). In 2007, the Supreme Court reversed the D.C. circuit’s ruling, in a 5-4 decision, holding that the plain language of section 202(a)(1) was clear and unambiguous and extremely broad in defining “air pollutant.” *Massachusetts v. E.P.A.*, 549 U.S. 497, 529 (2007) (hereinafter “*Massachusetts*”). The Court held that under section 7602(g), GHGs fall within “[t]he Clean Air Act’s sweeping definition of ‘air pollutant’ [that] includes ‘any air pollution agent or combination of such agents, including any physical, chemical . . . substance or matter which is emitted into or otherwise

⁷ Under section 202(a)(1) the EPA administrator “shall by regulation prescribe . . . standards applicable to the emission of *any air pollutant* . . . which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7521 (2015).

enters the ambient air” *Massachusetts* at 528-29 (emphasis in original). The Court found EPA’s refusal to make a decision regarding the danger posed by GHGs was arbitrary and capricious, and remanded the case for EPA to make a decision for action or inaction that is based in the statute. *Id.* at 534-35.

In response to the Courts decision in *Massachusetts*, the EPA issued an endangerment finding that states “six greenhouse gases taken in combination endanger both the public health and the public welfare of current and future generations.” Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496 (Dec. 15, 2009) (hereinafter “Endangerment Finding”). This finding was upheld in *Coalition for Responsible Regulation, Inc. v. E.P.A.*, 684 F.3d 102 (D.C. Cir. 2012) (rev’d on other grounds by *Util. Air Regulatory Grp. v. E.P.A.*, 134 S.Ct. 2427 (2014)). Although the endangerment finding created no obligations or standards regarding GHG emissions on its own, it paved the way for the EPA, in conjunction with the National Highway Traffic Safety Administration, to issue a rule setting fuel economy and emissions standards for GHGs for certain vehicles. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, Final Rule, 75 Fed. Reg. 25324-01 (May 7, 2010). Once the EPA decided to regulate GHGs for mobile sources, it triggered regulation under other parts of the CAA.

The EPA believed that once it issued regulations for GHGs, by defining a “major emitting facility” based on its emissions of “any air pollutant” at the statutory threshold, it was compelled to consider potential GHG emissions in determining whether a source was a “major emitting facility.” Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17004-01 (Apr. 2, 2010). In

addition to the implication for designating major emitting facilities, the EPA recognized that BACT would now apply to GHGs as regulated pollutants under section 7475. *Id.*

Believing that these triggering requirements would significantly expand the scope and reach of the PSD program with regard to major emitting facilities, EPA issued its “Tailoring Rule” in 2010 aimed at limiting applicability of PSD for GHGs to only the largest emitters.⁸ In addition to issuing the Tailoring Rule, in 2011 EPA issued a final rule (“Deferral Rule”) deferring application of the PSD program to biogenic CO₂⁹ emissions from “bioenergy and other biogenic sources,” based on uncertainty about the role of biogenic CO₂ in the carbon cycle. Deferral for CO₂ Emissions From Bioenergy and Other Biogenic Sources Under the Prevention of Significant Deterioration (PSD) and Title V Programs, 76 FR 43490-01, 43496 (July 20, 2011).

The “Deferral Rule” was vacated in a split decision by the Court of Appeals for the District of Columbia Circuit in *Center for Biological Diversity v. E.P.A.*, 722 F.3d 401 (D.C. Cir. 2013), where the EPA argued that administrative law principles authorized it to defer regulation of biogenic CO₂, but failed to persuade the court. *Ctr. For Biological Diversity* at 409. The court rejected the EPA’s argument that it was exempting the emission as *de minimis* based on the fact that the EPA included a sunset provision in the “Deferral Rule”, reasoning that the rationale for a *de minimis* exceptions is based in their trivial affects and that a sunset provision undermines the

⁸ EPA believed that the statutory thresholds triggering PSD review (100 or 250 tons per year) were unworkable given the magnitude in which GHG emissions were emitted. EPA argued without the tailoring rule the act would “greatly increase the number of required permits”, that it would impose “undue costs on small sources”, and would impair the function of the PSD program by “overwhelming the resources of permitting authorities.” Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31514-01 (June 3, 2010).

⁹ Biogenic CO₂ is non fossil-fuel sources of energy derived or produced by living organisms. *Ctr. for Biological Diversity v. E.P.A.* 722 F.3d 401, 404 (D.C. Cir. 2013).

belief that the affects will be trivial because it contemplates future regulation. *Id.* The court also rejected EPA’s claim that it was regulating one step at a time, noting that the “Deferral Rule is one step toward . . . what?” *Id.* at 410.

In 2014 the Supreme Court, in a 5-4 decision, vacated the EPA’s tailoring rule, finding that the agency impermissibly interpreted the statute as requiring regulation under PSD based solely on GHG emissions and that it exceeded its authority in attempting to limit reach of the statute to only the largest sources. *Util. Air Regulatory Grp. v. E.P.A.* 134 S.Ct. 2427, 2442, 2446 (2014) (hereinafter “*UARG*”). The Court reasoned that although *Massachusetts* held that GHG met the statutory definition of “air pollutant,” there was no inherent inconsistency in interpreting the phrase “any air pollutant,” to exclude “those atypical pollutants that, like greenhouse gases, are emitted in such vast quantities that their inclusion would radically transform those programs and render them unworkable as written.” *UARG*, 134 S.Ct. at 2442. Additionally, the Court held that the agency could not rewrite the clear statutory terms defining “major emitting facility” to accommodate what it believes the statute *should* say. *Id.* at 2446 (emphasis in original). The Court found that the EPA exceeded its authority in the statute noting, “[i]t is hard to imagine a statutory term less ambiguous than the precise numerical thresholds at which the Act requires PSD and Title V permitting.” *Id.* at 2445.

In an important victory for the EPA, the Court held that although a source could not be classified as a major emitting facility based solely on emissions of GHGs, if it was classified as a “major emitting facility” based on its potential to emit an applicable pollutant—a so called anyway source—it would be subject to applying BACT for GHGs. *UARG*, 134 S.Ct. at 2449. Section 7475 states that a facility requiring a PSD permit “is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which

results from, such facility.” 42 U.S.C. § 7475(a)(4) (2015). The Court found that the statutory context “does not suggest that the BACT provision can bear a narrowing construction” and that the “phrasing of the BACT provision suggests that the necessary judgment has already been made by Congress.” *UARG*, 134 S.Ct. at 2448. Despite the seemingly unambiguous language of section 7475 requiring BACT for *all* pollutants regulated under the CAA, the Court still analyzed the reasonableness of EPA’s interpretation with substantial deference¹⁰, upholding BACT applicability for GHGs as neither arbitrary or capricious. *UARG*, 134 S.Ct. at 2448. The Court also found that the EPA’s determination that emission levels below 75,000 tons per year of CO₂E was not adequately supported, although it refused to hold that it necessarily exceeded a true *de minimis* threshold. *Id.* at 2449.

Coming to the end of this long road vindicating and clarifying the EPA’s authority to regulate GHGs, the science and certainty of global climate change has only strengthened as temperatures creep upward and scientific predictions are realized. *See* R.K. Pachauri and L.A. Meyer, *IPCC Climate Change Synthesis Report: Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, IPCC Geneva, Switzerland at 2-3 (2014), <http://www.ipcc.ch/report/ar5/syr/>. It is now imperative that the EPA begins utilizing its authority to start rolling back GHG emission toward something that the overwhelming majority of scientists believe is compatible with ensuring a stable climate.

¹⁰ Generally, reviewing courts give substantial deference to the EPA’s interpretation of the CAA amendments and its implementing regulations. *U.S. v. Alabama Power Co.*, 372 F. Supp. 2d. 1283, 1301 (2005). The Air Resources Board is the state agency that issues PSD permits, which is authorized by EPA delegation pursuant to section 7475. R. at 2. Because the Air Resources Board is an arm of the EPA, any interpretation it makes must be granted *Chevron* deference, unless it is plainly wrong or inconsistent with the regulation and Congress’s intent. *Alabama Power Co.*, 372 F. Supp. 2d at 1301. The *Chevron* Court stated that “if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984).

Turning now to Sylvanergy, it is clear from case law that biogenic CO₂ emissions are not exempt from consideration under PSD, and that Sylvanergy will need to comply with BACT review for its GHG emissions. As the Air Resources Board correctly determined, the fact that Sylvanergy is fueling its power plant with wood rather than conventional fuel sources is irrelevant to quantifying its GHG output because the deferral rule was vacated in *Center for Biological Diversity*. R. at 8. The CO₂ emitted from Sylvanergy's power plant will still contribute to adverse impacts on human health and the environment that prompted the EPA to issue an endangerment finding for GHGs. There is no guarantee that Sylvanergy will draw its wood supplies from sustainable sources, and so any theory that growing new trees will offset emissions is untenable. The trees that are used for the power plant could as easily come from pristine old growth redwood forest as they could come from the Lorax's sustainably managed tree plantation.

Next, it is clear that Sylvanergy's power plant qualifies as a major emitting facility based on its potential to emit CO in excess of statutory thresholds. R at 5. Following the holding in *UARG*, the facility would qualify as an anyway source, which is consistent with section 7475, and be subject to BACT review for emissions of any pollutants subject to regulation under the CAA. As the Court noted, "nothing in the statute categorically prohibits EPA from interpreting the BACT provisions to apply to [GHGs] emitted by 'anyway' sources" and so "EPA may . . . continue to treat [GHGs] as a 'pollutant subject to regulation under this chapter' for purposes of requiring BACT for 'anyway' sources." *UARG*, 134 S.Ct. at 2449. As a result of Sylvanergy's status as an anyway source subject to PSD review based on its emissions of CO, it must comply with BACT for its GHG emissions, which are generated in significant quantities.

Any contention that Sylvanergy's emissions will be *de minimis* is unwarranted. The Court in *UARG* held that emissions must be generated above *de minimis* levels before BACT review is triggered for a pollutant. Sylvanergy is projected to emit 350,000 tons per year of CO₂E, which is significantly more than the 75,000 tons per year that the Court questioned in *UARG*. R 5. Therefore, Sylvanergy's emissions cannot be viewed as *de minimis* considering the holding in *UARG* that 75,000 tons per year of CO₂E is likely *above* a true *de minimis* threshold. *See UARG* 134 S.Ct. at 2427, 2449.

Although Sylvanergy applied for their permit before the deferral rule had been struck down, it would seem contradictory to imply that EPA improperly considered biogenic GHG emissions because it was bound to follow an interpretation that was ruled had no statutory basis. The EPA did not have any authority to exempt biogenic CO₂ and consideration of the facilities emissions were proper under the clear requirements of section 7475.

Sylvanergy's power plant will be considered an anyway source subject to PSD review for CO and must comply with BACT review to regulate GHG emissions which in EPA's opinion "endanger[] the public welfare of both current and future generations," the severity of which is only expected to increase over time. Endangerment Finding, at 66496. This Court should therefore affirm the lower court's holding that consideration of biogenic CO₂ was a proper interpretation of the statute consistent with recent Supreme Court decisions.

IV. The Air Resources Board failed to complete a comprehensive BACT analysis because, under Step One, Save Our Climate's Control Technology does not fundamentally redefine Sylvanergy's power plant and business purpose, and under Step Four, monoculture forestry practices in the Sustainable Forest Plan are detrimental to the environment.

The Air Resources Board should have considered Save Our Climate's Control Technology as a BACT and rejected the Sustainable Forest Plan. BACT is an emission limitation that the permitting authority analyzes on a case-by-case basis "taking into account energy,

environmental, and economic impacts and other costs” determining what is achievable for each facility analyzed through the “application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.” R. at 9; 42 U.S.C. § 7479(3) (2015); *see generally Sierra Club v. U.S.E.P.A.*, 499 F.3d 653, 654 (7th Cir. 2007); *Prevention of Significant Deterioration Basic Information: New Source Review (NSR) Permitting*, EPA (Oct. 21, 2015), <http://www2.epa.gov/nsr/prevention-significant-deterioration-basic-information#BACT>.

When determining the BACT for GHGs, the Air Resources Board used a top-down, five-step process ranking the control technologies for a given pollutant in descending order of control effectiveness (top-down methodology). R. at 10; Office of Air Quality Planning & Standards, U.S. EPA, *New Source Review Workshop Manual*, B.3 (draft Oct. 1990) (hereinafter “1990 Manual”). The Air Resources Board has the discretion to evaluate BACT on a “facility-wide basis by taking into account the operations and equipment which affect the environmental performance of the overall facility.” 2011 Report at 23. The EPA recently released a new permitting guidance manual that incorporates much of the knowledge and guidance from the 1990 Manual, including the need for “*all*” control options in a comprehensive list; the 2011 Manual has specific updates as to the acceptance of integrated gasification combined cycle (IGCC) as BACT. 1990 Manual at B.7, B.11-.13 (emphasis added); 2011 Report.

Here, Save Our Climate’s Control Technology should be included as a BACT, and was inappropriately rejected by the Air Resources Board. R. at 12-13. Unless a control technology would fundamentally redefine the source, all technologies should at least be considered as a BACT under Step One. 1990 Manual at B.10. Secondly, the Sustainable Forest Plan should

have been eliminated under Step Four of the BACT analysis because of the negative environmental impacts that occur when monoculture forestry practices, like the ones proposed here, are used. R. at 12.

- A. The Control Technology can be incorporated into Sylvanergy's power plant and should be considered a BACT by the Air Resources Board because the Control Technology does not fundamentally redefine the Sylvanergy's project or business purpose and the intended purpose of a BACT Step One analysis is to identify all available control technologies, even if those technologies are rejected at a later step.

During Step One of a BACT analysis, *all* available control options that have the potential for practical application to the “emission unit and the regulated pollutant under evaluation” should be evaluated as long as they do not redefine the scope and purpose of the project. 2011 Report at 24 (emphasis added); *In the Matter of: Old Dominion Elec. Coop. Clover, Virginia, Permit Applicant*, 3 E.A.D. 779, 8 (E.P.A. Jan. 29, 1992) (State considered “redefin[ing] the source” was to alter the fundamental scope of the project and Court held that State did not err in its use of discretion during the BACT analysis). There should be a focus on technologies that have been “demonstrated to achieve the highest levels of control for the pollutant in question, regardless of the source type in which the demonstration has occurred.” 2011 Report at 24.

Additionally, the identification of BACT should include the application of alternative production processes or innovative fuel combustion techniques. 2011 Report at 24. The permitting committee can conduct a broader BACT analysis and even technologies outside of the United States should be considered. 1990 Manual at B.5; 2011 Report at 24. Gasification and IGCC are production processes that can act as emission control technologies, reducing pollutants and particulate matter. *Utah Chapter of Sierra Club v. Air Quality Bd.*, 226 P.3d 719, 731 (2009). Even though gasification and other production processes are more difficult to analyze as BACT when they involve the same fuel source but different forms of production, the EPA will

still consider this technology under Step One of a BACT analysis. *Utah Chapter of Sierra Club*, 226 P.3d at 732.

Although Step One of a BACT analysis should be inclusive and cast a wide net, the proposed technology cannot fundamentally redefine the source. R. at 12. *In the Matter of: Old Dominion Elec.*, 3 E.A.D. 779 at 8; see *Sierra Club v. Moser*, 310 P.3d 360, 389 (2013) (holding that the business purposes of the proposed facility include integration and the reasons to not include IGCC technology in the first step of the BACT analysis are consistent with the permit seeker's business purpose, differentiating it from *Utah Chapter of Sierra Club*.) EPA's guidance has been interpreted to mean that the facility is "redefined" when the "adoption of a control technology change[s] the objective or purpose of the facility." *Utah Chapter of Sierra Club*, 226 P.3d at 732; *Sierra Club v. U.S.E.P.A.*, 499 F.3d at 656-67. The purpose of a facility is usually determined by the description in the facility's application; the purpose of the project must be objective and must relate to the business purpose for the proposed facility. *Utah Chapter of Sierra Club*, 226 P.3d at 732-33.

Recently, the EPA and courts have looked favorably upon IGCC technology for its use in pollution reduction. In the last seven years, the EPA and a number of courts have "concluded that IGCC technology must be considered in the Step 1 analysis, because its use would not necessarily redefine the source." John-Mark Stensvaag, *Preventing Significant Deterioration Under the Clean Air Act: The Bact Determination-Part I*, 41 Env'tl. L. Rep. News & Analysis 11101, 11116 (2011); 2011 Report at 30 n.83. "In general, if a control option has been demonstrated in practice on a range of exhaust gases with similar physical and chemical characteristics and does not have a significant negative impact on process operations, product

quality, or the control of other emissions, it may be considered as potentially feasible for application to another process.” 2011 Report at 24-25.

Courts have considered that changing a fuel source constitutes a redesign and change to the business’s purpose. The Court of Appeals in the Seventh Circuit upheld the Appeals Board’s opinion that alternative sources of coal (low-sulfur coal from other states) were inconsistent with the inherent aspect of the proposed project. *Sierra Club v. U.S.E.P.A.*, 499 F.3d at 656-57. The proposed BACT would require the facility to receive coal from a distant mine and would reconfigure the mine-mouth power plant design, receiving coal by a conveyor belt from a designated adjacent, local mine; the reconfiguration would constitute a redesign. *Id.*; Call Summary of *State Clean Energy-Environment Technical Forum: Integrated Gasification Combined Cycle (IGCC) & Carbon Capture and Storage (CCS)*, EPA (June 19, 2006), http://www3.epa.gov/statelocalclimate/documents/pdf/summary_paper_igcc-ccs_6-19-2006.pdf. (although IGCC utilizes coal, a similar framework and system are implemented in a carbon capture and sequestration system like the one proposed here by Save Our Climate).

In *Utah Chapter of Sierra Club*, the Supreme Court of Utah held that IGCC did not affect the basic business purpose of the proposed Power Company’s facility because it would not require the Power Company to redefine the design of its proposed facility. 226 P.3d at 732. The basic design of the facility was an electrical power generating plant fueled by coal. *Id.* The Power Company would not have to consider wind generation of electric power as a BACT, but another technology like IGCC would not require the Power Company to redefine the design; the facility would still remain an electric power generating plant fueled by coal. *Id.* The court also reiterated that considering IGCC in the BACT review did not compel the adoption of IGCC technology, but only required the Power Company to subject IGCC to the five-step top down

analysis. *Id.* at 732-33. Although “redefining the source” is ultimately a question of degree that is within the discretion of the permitting authority, Step One of the BACT analysis is intended to capture a broad array of potential options; a wide net is cast to identify all potential control options. 2011 Report at 26-27.

Here, in order to determine if Save Our Climate’s Control Technology would fundamentally redefine the basic business purpose of Sylvanergy’s plant, the Air Resources Board should have taken into consideration the design of Save Our Climate’s Control Technology along with Sylvanergy’s business purpose for its power plant. The Air Resources Board failed to determine which of Sylvanergy’s design elements were inherent for the purpose of the operation and which ones could be changed to achieve pollutant emissions reductions. R. at 5; 2011 Report at 26.

The Air Resources Board found that Save Our Climate’s Control Technology would impermissibly redefines Sylvanergy’s plant. R. at 12. Sylvanergy’s plant would house a biomass-fired electricity generation unit combined with a wood pellet fuel production. R. at 5. Save Our Climate’s Control Technology uses wood gasification technology with steam reformation in order to separate out the carbon dioxide for sequestration. R. at 12. Unlike the proposed BACT technology in *Sierra Club v. U.S.E.P.A.*, Save Our Climate does not want Sylvanergy to change a fundamental aspect of its facility or business purpose, like the location or the fuel source. 499 F.3d at 656-57; R. at 12. In fact, the area of Sylvanergy’s proposed plant near Forestdale is an ideal location for Save Our Climate’s carbon capture Control Technology. R. at 5, 12. Forestdale is located on the Union Shale geologic unit, evidenced by geological studies. R. at 12. The *Rhodes and Keith* study concluded that a gasification and steam reformation plant proposed as a BACT is feasible using technologies that are already in use with an overall electric generation

efficiency of about 25%, which is the same efficiency output at Sylvanergy's plant. R. at 12-13; James S. Rhodes & David W. Keith, *Engineering Economic Analysis of Biomass IGCC with Carbon Capture and Storage*, 29 *Biomass and Bioenergy* 440, 443 (2005). Sylvanergy would only need to make minor adjustments to its processes in order to harness the land (for carbon sequestration) and build Save Our Climate's Control Technology utilizing the same resource already proposed by Sylvanergy, wood. R. at 5, 12-13. Similar to *Utah*, even if elements of the basic design of Sylvanergy's power plant would have to adapt, the facility would still be an electricity generating facility using wood, not changing the business purpose of the facility. R. at 4-5, 12; *Utah Chapter of Sierra Club*, 226 P.3d at 732-33.

Moreover, the EPA in its most recent permitting guidelines (the updated version of the 1990 study the Air Resources Board relies on) believes that IGCC technology should be listed as BACT when it is more efficient than the proposed technology, as long as it doesn't redefine the source. R. at 9; 2011 Report at 30. The IGCC "technology should not be excluded on redefining the source rounds as Step 1 of a BACT analysis in any particular case unless the record clearly demonstrated why the permit applicant's basic or fundamental business purpose would be frustrated by the application of this process." 2011 Report at 30 n.83; Stensvaag, *Preventing Significant Deterioration Under the Clean Air Act* at 11116. There is no indication in the record that the Air Resources Board considered the parameter and elements or the fundamental scope of Sylvanergy's project, although it can be assumed that Sylvanergy wants to successfully operate an electricity generation and wood pellet fuel production facility in Forestdale. R. at 4.

Additionally, Sylvanergy gave no reason why Save Our Climate's Control Technology would frustrate its business purposes; the record is silent as to this analysis. *Sierra Club v. Moser*, 310 P.3d at 389.

Considering Save Our Climate's Control Technology has the potential for practical application and does not request to move Sylvanergy's plant or even alter the fuel source, the Air Resources Board should have at considered Save Our Climate's Control Technology during Step One of the BACT and erred by failing to do so. R. at 12. The Control Technology does not fundamentally redefine Sylvanergy's plant or frustrate its basic business purposes. R. at 5. According to 2011 report from the EPA, the Control Technology itself should not be eliminated as a BACT just because gasification technology is utilized. 2011 Report at 30 n.83. Even if the Air Resources Board were to eliminate the Control Technology during one of the other steps in the five-step analysis, it should have considered the Control Technology during this wide net collection of proposals. The Control Technology combines new, tested technology that would be geologically appropriate for the region.

- B. The Sustainable Forest Plan should have been rejected under Step Four of the BACT analysis because monoculture forestry practices that destroying biodiversity, promote tree disease, and promote pest invasions are not environmentally sound.

During Step Four of a BACT analysis, the Air Resources Board should consider the economic, energy, and environmental impacts of each remaining BACT option. R. at 12; 2011 Report at 38. The environmental impact analysis should look at environmental impacts other than direct impacts due to emissions of the regulated pollutant, because the purpose of a BACT requirement is to reduce the pollutant under evaluation. 2011 Report at 39. The EPA has traditionally focused on any significant or unusual environmental impacts including visibility impacts, solid waste generation and demand on local water resources. 2011 Report at 39-40; *see also In Re: Hillman Power Co., L.L.C.*, 10 E.A.D. 673 (E.P.A. July 31, 2002). Although the permitting authority has flexibility in deciding how to "weigh the trade-offs associate with emissions control options," it also has the responsibility of developing a full permit record that "explains those decisions given the specific facts of the facility at issue." 2011 Report at 40.

Here, the Air Resources Board determined that the Sustainable Forest Plan was a BACT under Step Four after determining there was suitable forestry land available in the vicinity of Forestdale, within budget of the project. R. at 11-12. Although the Air Resources Board considered the Sustainable Forest Plan a BACT under Step Four for economic reasons, the sustainable forest plan is not sustainable for the environment, particularly long term. R. at 11-12. The plan for this forest includes using the practice of monoculture, which is the practice of growing genetically similar (or essentially identical plants) over large areas, year after year. R. at 12; *Biodiversity and Agriculture*, Harvard T.H. Chan: School of Public Health, <http://www.chgharvard.org/topic/biodiversity-and-agriculture> (last visited Nov. 25, 2015). Although it is argued that monoculture practices produce greater yields because plants are growing in a more uniform structure with less pressure from other species, plants are actually put at greater risk when conditions fluctuate. *Id.* There is a greater stability of production with genetic diversity. *Id.*

Monoculture forests are the typical results of logging and no matter how “good the owner’s intentions are or how skilled the foresters and operators, there is no way that a harvested stand will have the same structure and ecology as an old-growth one.” Jerry Jenkins, Open Space Institute, *Conservation Easements and Biodiversity in the Northern Forest Region*, ch. 3 (2008), http://www.osiny.org/site/PageServer?pagename=Publication_ConservationEasements_Jenkins. Monoculture forests are very vulnerable to disease and insects, with plant epidemics more severe because of the crowding and uniformity of the plant. *Biodiversity and Agriculture*.

The Sustainable Forest Plan, using monoculture forestry practices, should have been eliminated under Step Four of the BACT analysis because it is detrimental to the environment, even if the Air Resources Board found it economically feasible. R. at 11-12. Although the

environmental impact analysis has not typically been a “pivotal consideration when making BACT determinations in most cases,” there have been instances where environmental impacts have been the deciding factor in selecting a BACT under Step Four. 2011 Report at 40. This should be one of those instances. The Sustainable Forest Plan should have been rejected as a BACT because it represents an unsustainable and ultimately ineffective option. Moreover, there is no clear record explaining why the Air Resources Board decided that the Sustainable Forest Plan was a suitable BACT under the environmental prong of Step Four BACT analysis. R. at 12. Furthermore, the record indicates that the Air Resources Board failed to address Save Our Climate’s comments regarding the monoculture forest plan, and did not provide justification for its actions. R. at 12. The Air Resources Board should focus on the environmental impacts rather than the direct economic impacts during this step and the BACT analysis as a whole. This Court should reverse the Appeals Board’s decision and reject the Sustainable Forest Plan as BACT because it fails to give environmental concerns due consideration.

CONCLUSION

The Air Resources Board properly denied Sylvanergy’s NAD application and this Court lacks jurisdiction to review that denial under 40 C.F.R. section 124.19. The Appeals Board correctly held that Sylvanergy is a major emitting facility, as defined by the CAA. Additionally, the Appeals Board was correct in holding that Sylvanergy's plant is subject to BACT review for GHGs because the plant was statutorily required to control *all* regulated pollutants under its PSD permit. However, the Air Resources Board failed to conduct the expansive legal analysis and fact-specific inquiry required under BACT Steps One and Four during the PSD review. Therefore, this Court should affirm the Appeals Board’s holdings that Sylvanergy lacks jurisdiction to challenge the NAD and is a major emitting facility subject to regulation under PSD (including BACT review for GHGs), and should reverse and remand the Sustainable Forest

Plan as BACT consistent with the applicable law above because the BACT analysis was not in accordance with the law.

Respectfully submitted,

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