

No. 19-1152

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FOURTH CIRCUIT**

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FRIENDS OF BUCKINGHAM; CHESAPEAKE BAY FOUNDATION, INC.,

*Petitioners,*

v.

STATE AIR POLLUTION CONTROL BOARD; RICHARD D. LANGFORD,  
Chair of the State Air Pollution Control Board; VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL QUALITY; DAVID K. PAYLOR, Director, Virginia

Department of Environmental Quality,

*Respondents,*

and

ATLANTIC COAST PIPELINE, LLC,

*Intervenor.*

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On Petition for Review of Approval and Issuance of Stationary Source Permit  
No. 21599 by the State Air Pollution Control Board and the Virginia Department of  
Environmental Quality

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**PETITIONERS' RULE 30(c) PAGE-PROOF OPENING BRIEF**

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UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT  
DISCLOSURE OF CORPORATE AFFILIATIONS AND OTHER INTERESTS

Disclosures must be filed on behalf of all parties to a civil, agency, bankruptcy or mandamus case, except that a disclosure statement is **not** required from the United States, from an indigent party, or from a state or local government in a pro se case. In mandamus cases arising from a civil or bankruptcy action, all parties to the action in the district court are considered parties to the mandamus case.

Corporate defendants in a criminal or post-conviction case and corporate amici curiae are required to file disclosure statements.

If counsel is not a registered ECF filer and does not intend to file documents other than the required disclosure statement, counsel may file the disclosure statement in paper rather than electronic form. Counsel has a continuing duty to update this information.

No. 19-1152 Caption: Friends of Buckingham v. State Air Pollution Control Board

Pursuant to FRAP 26.1 and Local Rule 26.1,

Friends of Buckingham, Inc.

(name of party/amicus)

who is petitioner, makes the following disclosure:  
(appellant/appellee/petitioner/respondent/amicus/intervenor)

1. Is party/amicus a publicly held corporation or other publicly held entity?  YES  NO
2. Does party/amicus have any parent corporations?  YES  NO  
If yes, identify all parent corporations, including all generations of parent corporations:
3. Is 10% or more of the stock of a party/amicus owned by a publicly held corporation or other publicly held entity?  YES  NO  
If yes, identify all such owners:

4. Is there any other publicly held corporation or other publicly held entity that has a direct financial interest in the outcome of the litigation (Local Rule 26.1(a)(2)(B))?  YES  NO  
If yes, identify entity and nature of interest:

5. Is party a trade association? (amici curiae do not complete this question)  YES  NO  
If yes, identify any publicly held member whose stock or equity value could be affected substantially by the outcome of the proceeding or whose claims the trade association is pursuing in a representative capacity, or state that there is no such member:

6. Does this case arise out of a bankruptcy proceeding?  YES  NO  
If yes, identify any trustee and the members of any creditors' committee:

Signature: /s/ Gregory Buppert

Date: May 31, 2019

Counsel for: Friends of Buckingham, Inc.

**CERTIFICATE OF SERVICE**

\*\*\*\*\*

I certify that on May 31, 2019 the foregoing document was served on all parties or their counsel of record through the CM/ECF system if they are registered users or, if they are not, by serving a true and correct copy at the addresses listed below:

/s/ Gregory Buppert  
(signature)

May 31, 2019  
(date)

UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT  
DISCLOSURE OF CORPORATE AFFILIATIONS AND OTHER INTERESTS

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No. 19-1152                      Caption: Friends of Buckingham v. State Air Pollution Control Board

Pursuant to FRAP 26.1 and Local Rule 26.1,

Chesapeake Bay Foundation, Inc.  
(name of party/amicus)

who is Petitioner, makes the following disclosure:  
(appellant/appellee/petitioner/respondent/amicus/intervenor)

- 1. Is party/amicus a publicly held corporation or other publicly held entity?  YES  NO
  
- 2. Does party/amicus have any parent corporations?  YES  NO  
If yes, identify all parent corporations, including all generations of parent corporations:
  
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If yes, identify any publicly held member whose stock or equity value could be affected substantially by the outcome of the proceeding or whose claims the trade association is pursuing in a representative capacity, or state that there is no such member:

6. Does this case arise out of a bankruptcy proceeding?  YES  NO  
If yes, identify any trustee and the members of any creditors' committee:

Signature: /s/ Jon A. Mueller

Date: May 31, 2019

Counsel for: Chesapeake Bay Foundation, Inc.

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I certify that on May 31, 2019 the foregoing document was served on all parties or their counsel of record through the CM/ECF system if they are registered users or, if they are not, by serving a true and correct copy at the addresses listed below:

/s/ Jon A. Mueller  
(signature)

May 31, 2019  
(date)

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## INTRODUCTION

Union Hill, Virginia, embodies unique threads of American southern history. It is a community settled by Freedmen and Freedwomen in Buckingham County following the end of the Civil War. Here, the formerly enslaved used their hard-earned wages to buy land from the plantations where they had previously been forced to work without pay. They established their own churches, were educated in local school houses, and managed to pass land from generation to generation. From Reconstruction through Jim Crow segregation, from the freedom struggle of the post-World War II civil rights movement to the present, the community has persisted. Many descendants of those who remained on the land after Emancipation still call Union Hill home.

But a threat looms for this community. The developer of the planned 604-mile Atlantic Coast Pipeline selected Union Hill for its only compressor station in Virginia (the “Compressor Station”). The proposed 58,000-horsepower Compressor Station would run a series of gas-fired turbines every day of the year to maintain pressure in the pipeline. Pollution and noise from this facility would disrupt the character and clean air of a predominantly African-American community that has endured for over 150 years.

Under its approved implementation of the Clean Air Act, Virginia has imposed regulations that go beyond the minimum requirements of federal law.

Virginia law subjects minor new source review permits, like the permit for the Compressor Station (“Permit”), to Virginia’s stringent Best Available Control Technology (“BACT”) standard. In addition, Virginia law requires that the Commonwealth’s air pollution regulators—the Virginia Department of Environmental Quality (“DEQ”) and the State Air Pollution Control Board (“Board”)—consider site-specific factors related to community health and safety.

Union Hill did not get the full protection of these laws. The Board and DEQ (collectively, “State Agencies”) skipped a critical step of the BACT analysis by refusing to consider the zero-emitting alternative of electric motors to drive the compressors in place of the polluting gas-fired turbines. Likewise, when reviewing site suitability and threats to local health and safety, the State Agencies concluded that there can be no disproportionate health effects from air pollution that is within National Ambient Air Quality Standards (“NAAQS”)—effectively eliminating their obligation to consider site-specific factors at all.

Because the Union Hill community did not receive the protection of these environmental laws, the Court should vacate and remand the Permit for further consideration.

### **JURISDICTIONAL STATEMENT**

This Court has jurisdiction under Section 19(d)(1) of the Natural Gas Act, which provides that “[t]he United States Court of Appeals for the circuit in which a



facility subject to” regulation under 15 U.S.C. § 717r(f) “is proposed to be constructed ... shall have original and exclusive jurisdiction over any civil action for the review of an order or action of a ... State administrative agency acting pursuant to Federal law to issue, condition, or deny any permit ....” 15 U.S.C. § 717r(d)(1).

Friends of Buckingham and Chesapeake Bay Foundation, Inc. (“Petitioners”) seek review of the State Agencies’ actions in issuing a stationary source permit for the Compressor Station pursuant to 9 Va. Admin. Code § 5-80, the relevant provisions of which have been incorporated into Virginia’s State Implementation Plan (“SIP”) under Section 110 of the Clean Air Act, 42 U.S.C. § 7410. *See* 40 C.F.R. § 52.2420 (identifying regulations incorporated into SIP). The proposed Compressor Station is in the Fourth Circuit and is subject to regulation under 15 U.S.C. § 717r(f). Accordingly, this Court has jurisdiction.

The State Agencies’ approval and issuance of the Permit is a final agency action reviewable under the Administrative Procedure Act (“APA”). 5 U.S.C. § 704. DEQ issued the Permit on January 9, 2019. Dowd Letter (AR013938). Petitioners timely filed their petition for review on February 8, 2019. ECF No. 2-1.

Petitioners—organizations with members who live, work, and recreate in an area that will be affected by the construction and operation of the Compressor

Station—have standing to bring this action. An organization has standing if its members would have standing to sue in their own right, the interests at stake are germane to the organization’s purpose, and the lawsuit does not require the participation of individual members. *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 181 (2000).

Petitioners’ members would have standing to sue in their own right, because they have (1) suffered an injury in fact (2) that is fairly traceable to the State Agencies’ actions, and (3) that is likely to be redressed by a favorable decision. *See Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016). Construction and operation of the Compressor Station—which would significantly increase nitrogen oxide and daily fine particle pollution and would emit volatile organic compounds and air toxics—would adversely affect members’ use and enjoyment of their property and harm the natural resources and cultural heritage of Buckingham County, where members live.

For example, Friends of Buckingham member Ella Rose’s home, surrounded by farms and woodlands, is 150 feet from the proposed Compressor Station property; John Laury’s home and fruit orchards are approximately one mile away. Rose Decl. ¶¶ 4,5 (ADD138); Laury Decl. ¶ 5 (ADD145). Air pollution from the Compressor Station, which would run 24 hours a day, seven days a week, would severely diminish Ms. Rose’s and Mr. Laury’s use and enjoyment of properties

they have owned in Union Hill for decades. Rose Decl. ¶¶ 10-11, 15-16; Laury Decl. ¶ 11. So, too, would the Compressor Station's emissions diminish Chad Oba's enjoyment of her property a mile away, where her husband, a stone sculptor, works outdoors for up to ten hours per day. Oba Decl. ¶¶ 6, 8-9 (ADD152).

Chesapeake Bay Foundation (CBF) has 51 members living in Buckingham County. Tomazin Decl. ¶ 3 (ADD159). CBF member Kenda Hanuman lives in Yogaville, just a few miles from the Compressor Station site, and is committed to preserving the health of the land, air, and water resources of Buckingham County. Hanuman Decl. ¶ 2 (ADD183). She is particularly concerned that her enjoyment of the James River, her property, and her community will be harmed by the Compressor Station and the pipeline feeding it, which will cross the James River near her home. *Id.* ¶¶ 6-7. Ms. Hanuman is also concerned that air pollution from the Compressor Station will harm her health. *Id.* ¶ 7.

The injuries to Petitioners' members such as Ms. Rose, Mr. Laury, and Ms. Hanuman are fairly traceable to the State Agencies' approval and issuance of the Permit, without which the Compressor Station could not be constructed. *See* 9 Va. Admin. Code § 5-80-1120(A) (requiring permit from Board for new stationary sources). The Court can redress these injuries by vacating the Permit and remanding to the State Agencies for appropriate analysis. Accordingly, Petitioners' members would have standing to sue in their own right.

The interest of Petitioners' members in avoiding the disproportionately high and adverse impacts associated with the Compressor Station is germane to the purposes of the Petitioner organizations. Friends of Buckingham is devoted to protecting the natural resources and cultural heritage of Buckingham County, Fjord Decl. ¶ 3 (ADD132); CBF is dedicated to protecting human health and saving the Chesapeake Bay by fighting for solutions to air and water pollution in the region. Tomazin Decl. ¶¶ 4-7. Neither the claims asserted nor the relief sought—vacatur and remand of the Permit—requires the participation of individual members. Therefore, Petitioners have standing.

CBF also has standing in its own right. *See* Tomazin Decl. ¶¶ 6-18, 20-28, 32; *Philip Morris USA Inc. v. Chesapeake Bay Found., Inc.*, 643 S.E.2d 219, 228 (Va. 2007).

## ISSUES PRESENTED

1. Under Virginia's approved implementation of the federal Clean Air Act, the Compressor Station is subject to minor new source review and must apply the best available control technology for each regulated pollutant. Electric motors, in place of gas-fired turbines, are an available control technology that would eliminate most of the on-site air pollution from the Compressor Station. Did the State Agencies err by failing to consider electric motors as a zero-emission alternative to polluting gas-fired turbines?

2. The Board had an obligation to consider the reasonableness, health risks, and suitability of the Compressor Station at its proposed location in the predominantly African-American, residential, historic Union Hill community. The State Agencies decided that compliance with NAAQS and receipt of a local land use permit—necessary conditions before a valid permit could be issued—were themselves sufficient to satisfy the health and site suitability factors in the statute. Was the Board's decision to render the requirements of Va. Code § 10.1-1307(E) superfluous and to ignore the known, disproportionate health risks to Union Hill from the Compressor Station arbitrary and capricious?

## STATEMENT OF THE CASE

### **A. Atlantic's Siting of a Polluting Compressor Station in the Historic Union Hill Community**

In 1885, 20 years after the end of the Civil War and the abolishment of slavery, the formerly enslaved Taylor Harper purchased a 25-acre parcel of land in Buckingham County from former slave owner Robert D. Moseley. Jan. 2019 Walker Comments 2 (AR013609). Mr. Harper purchased the land using savings from two decades of cutting and handling tobacco on the Moseleys' Variety Shade Plantation. Walker Decl. ¶ 5 (ADD176). In 1916, Mr. Harper's son, Arthur Harper, added to the family's landholdings by purchasing an adjacent 27 acres from Mr. Moseley's son. Jan. 2019 Walker Comments 2 (AR013609). The land has remained in the Harper family for eight generations, and Harper descendants and relatives have gathered for an annual reunion at the homestead for more than 50 years. *Id.*

The Harpers are not alone; other emancipated families bought nearby property from former plantations in what had become known as Union Hill. Here, the Laurys, Perkins, Moseleys, Claibornes, and other free families attended school, farmed, practiced trades, and opened stores, like the Shelton Store for which State Route 660 is named. Jan. 2019 Fjord Comments 16 (AR013171). Community members founded the Union Hill Baptist Church in 1868 and the Union Grove Missionary Church in 1910. Jan. 2019 Fjord Comments 3, 15-16 (AR013158,

AR013170-71). Union Hill residents still worship in both churches, and the headstones in the churches' historic Black cemeteries contain surnames of many community members who participate in Friends of Buckingham meetings today. *Id.* at 15-16 (AR013170-71).

One hundred thirty years after Taylor Harper purchased his land, Atlantic Coast Pipeline, LLC (“Atlantic”) bought a neighboring 68.5-acre plot from the descendants of the slaveholders who owned the Variety Shade Plantation. Household Study Report 2, 8 (AR012149, AR012155). Atlantic—a joint venture of Dominion Energy, Inc., Duke Energy Corporation, and Southern Company—chose this location as the site of one of three compressor stations for its proposed 604-mile Atlantic Coast Pipeline (“ACP”), designed to transport natural gas from West Virginia to Virginia and North Carolina. ACP Programmatic Agreement 1 (AR011963). Compressor stations pressurize gas to move it along a pipeline, generating air pollution. Sept. 2015 Atlantic Application 1-3 (AR000008-10). To drive its compressors, the Compressor Station’s four turbines, with a combined 58,162 horsepower, would burn gas 24 hours a day, 365 days a year. May 2018 Permit Application App. A at 11 (AR001676).

Atlantic is also using eminent domain to take an easement from Taylor Harper’s descendants on their family land. Jan. 2019 Walker Comments 1-2 (AR013608-09); Complaint in Condemnation, *Atl. Coast Pipeline, LLC v. .79*

*Acre*, No. 6:18-cv-0042-NKM-RSB (W.D. Va. Mar. 28, 2018). Atlantic has already taken land passed down by formerly enslaved people from Cora Perkins, who lives adjacent to the Compressor Station boundary line. Jan. 2019 Fjord Comments 5 (AR013160).

### **B. Demographics of the Union Hill Community**

To document the demographics of their community, Friends of Buckingham conducted a door-to-door study of households located within approximately one mile of the proposed Compressor Station. Household Study Report 16 (AR012163). Designed by a Ph.D. anthropologist, the study included open-ended interview questions about health conditions, numbers of household residents, race, age ranges, and family history. Household Study Report (AR012148-65). As of January 2019, the study had interviewed 77 of the 100 households in Union Hill, covering 200 residents. Jan. 2019 Household Study Summary (AR013167).

The study indicated that about 84% of those residents are nonwhite, most of African-American descent—a percentage far higher than the county-wide percentage of African Americans (34.7%). Jan. 2019 Household Study Summary (AR013167); Final Environmental Impact Statement (“Final EIS”) App. U, tbl. U-1 (AR012036). Of the 67 households for which a full set of responses exists, 42 (or 62.6%) are known descendants of formerly enslaved people from area plantations. Jan. 2019 Household Study Summary (AR013167). Eight households



reported unmarked slave and Freedmen graves on their property or nearby. *Id.* An independent analysis found that the area within one mile of the proposed Compressor Station has a population density 51% higher than the county average—and 77% higher than either Atlantic or DEQ identified in community profiles they prepared during the Compressor Station permitting process. Metts Comments 2 (AR013439).

The Friends of Buckingham study also revealed a prevalence of health conditions consistent with national data showing higher rates of respiratory sickness among the African-American population. Final EIS 4-513 to 4-514 (AR012077-78). Thirty-five households reported pre-existing medical diagnoses, chiefly respiratory and heart conditions. Jan. 2019 Household Study Summary (AR013167). Residents of Union Hill, including many elderly residents, reported suffering from chronic ailments including asthma, chronic obstructive pulmonary disease, chronic bronchitis and pneumonia, heart disease, and other conditions that would make them particularly susceptible to air pollution from the Compressor Station. *Id.*; Sept. 2018 Physicians for Social Responsibility Comments 4 (AR010781).

### **C. Air Pollution from the Compressor Station**

The Compressor Station represents a significant new source of industrial pollution in Union Hill. The majority of the Compressor Station's pollution will

be generated by four natural gas-fired turbines that power the facility's compressors. Final Permit Analysis 11 (AR013974). Together, the turbines' combustion of gas accounts for 83% of the facility's projected nitrogen oxide emissions and 95% of its emissions of particulate matter (PM, PM<sub>2.5</sub>, and PM<sub>10</sub>), and also generates emissions of air toxics like formaldehyde and hexane. *Id.* at 11, 6 (AR013974, AR013969).

The Federal Energy Regulatory Commission ("FERC") determined that the Compressor Station will increase the area's annual amount of nitrogen oxide pollution by 120%,<sup>1</sup> increase daily fine particle (PM<sub>2.5</sub>) pollution by 69%, and emit known carcinogens into the community. Final EIS 4-514, 4-561 tbl. 4.11.1-11 (AR011385, AR011432).<sup>2</sup> Communities downwind from compressor stations likely suffer from elevated exposure to pollutants. Sept. 2018 SELC Comments 10 (AR008558). According to Atlantic's air modeling, the prevailing winds at the Compressor Station site put Union Hill in the bull's-eye for the facility's localized

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<sup>1</sup> Nitrogen oxide combines with other atmospheric compounds to form ozone, also known as smog. *See* Physicians for Social Responsibility Compendium 47 (AR007562).

<sup>2</sup> FERC prepared an Environmental Impact Statement prior to issuing Atlantic a certificate of public necessity and convenience for the ACP under Section 7(c) of the Natural Gas Act, 15 U.S.C. § 717f(c). *See Atl. Coast Pipeline, LLC*, 161 FERC ¶ 61,042 (2017). FERC's certificate and Environmental Impact Statement are the subject of several petitions for review pending in the D.C. Circuit, including one filed by Petitioners here. *Atl. Coast Pipeline, LLC v. FERC*, No. 18-1224 (D.C. Cir.).

air pollution. Final Modeling Report 21 (AR001799). Siting the Compressor Station in Union Hill is consistent with a longstanding history of polluting facilities in minority communities. *See, e.g.*, Robert Bullard et al., *Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years*, 38 *Envtl. L.* 371, 379 (2007); Sen. Tom Carper et al., *Poor, Minority Communities Bear the Brunt of Pollution; That Has to Stop*, Del. Online (May 16, 2019), <https://bit.ly/2I9hMwR>.

Air pollution from the combustion of natural gas harms human health by worsening asthma, decreasing lung function, and increasing emergency department visits and fatalities. Thurston Report 3 (AR008392); *see also* Final EIS 4-513 (AR012077) (recognizing that pollution from compressor stations “increase[s] the effects of asthma and may increase the risk of lung cancer”). The U.S. Environmental Protection Agency (“EPA”) has recognized that there is no evidence of a safe level of exposure for either ozone or fine particulate matter, and that both have adverse health effects even below the current NAAQS. EPA, National Ambient Air Quality Standards for Particulate Matter, 78 *Fed. Reg.* 3086, 3098 (Jan. 15, 2013). Even short-term exposures to PM<sub>2.5</sub> are causally connected to heart trouble and increased mortality. Thurston Report 4-5 (AR008393-94).

#### **D. DEQ’s Issuance of a Draft Permit**

In September 2015, Atlantic applied to DEQ for a minor new source air permit. Sept. 2015 Permit Application (AR000001). In the ensuing months,

residents living close to the proposed facility sent 80 letters to DEQ expressing their concerns. They highlighted the number of elderly and children who live in their households and noted preexisting health conditions that would make them particularly vulnerable to pollution from gas-fired compressor stations. Union Hill Community Letters (AR000132-291). Cora Perkins, who lives a quarter-mile from the site and has had four open-heart surgeries, expressed concern for her health and worry over her then-four-year-old grandson's breathing problems. Perkins Letter (AR000138).

Between September 2015 and May 2018, Atlantic updated its permit application three times. AR000296-340; AR001605-1775; AR001776. DEQ submitted several rounds of questions to Atlantic relating to agency evaluation of BACT, air modeling, and other technical issues raised by the application—but never once asked Atlantic about the possibility of using electric motors in place of gas-fired turbines to drive the compressors. *See* AR001095-97; AR001143-45; AR01220-22; AR001431-33; AR001829-30. Electric motors are commonly used to power compressor stations, including by the ACP's lead partner, Dominion Energy, which has installed an electric motor-driven compressor in Loudon County, Virginia. *Dominion Energy Cove Point LNG, LP*, 162 FERC ¶ 61,056, at ¶ 47 (2018). Unlike gas-fired turbines, which will be responsible for almost all of

the Compressor Station's air pollution, electric motors emit no pollutants at all. Sept. 2018 SELC Comments 26 (AR008574).

Nor did any of DEQ's questions relate to the health and site suitability criteria set forth in the operative statute, Va. Code § 10.1-1307(E), beyond its typical BACT analysis, or to the unique characteristics of the Union Hill community. *See* AR001095-97; AR001143-45; AR001220-22; AR001431-33; AR001829-30. Instead, DEQ merely completed a one-page site evaluation form. Permit Application Site Evaluation (AR001140). A DEQ environmental inspector deemed the site "Sparsely Populated" and checked only "Forest" (not "Residential") as a land use of the area around the proposed site. *Id.* DEQ listed the approximate distance to the nearest "School" and "Hospital/Nursing Home," but left blank the space on the form for "other buildings"—ignoring that there are at least 20 homes within 2,000 feet of the proposed site boundary. *Id.*; *see* Dec. 7, 2018 SELC Comments Attach. B (AR011534) (map showing Union Hill residences). DEQ recited this inaccurate information in the "Site Suitability" section of the permit analysis it issued along with a draft Permit in July 2018. DEQ Draft Permit Analysis 13 (AR002156). DEQ received more than 4,000 written comments on the proposed permit during a month-long public comment period. Response to Comments 1 (AR009799).

### **E. Board Approval of the Permit**

The Board held a two-day public meeting on the proposed permit on November 8 and 9, 2018. On the first day, numerous members of the Union Hill community and the public at large focused their comments on the disproportionately high and adverse impacts the Compressor Station would have on Union Hill. *See, e.g.*, Nov. 8, 2018 Hearing Transcript 93:10-95:20, 110:1-111:23, 120:25-123:10, 137:5-138:8 (AR009947-49, AR009964-65, AR009974-79).

On the second day, DEQ presented a new draft Permit and recommended approval. Nov. 9, 2018 DEQ Presentation 54-57 (AR010905-08). The Permit set emission limits based on data that the manufacturer did not warrant under all conditions. Response to Comments 40 (AR009838). The Permit contained emission limits for only two of the more than 30 toxic air pollutants that the Compressor Station would emit, and required no monitoring to determine compliance with those limits set for those two toxics, formaldehyde and hexane. Draft Permit 21-22 (AR002141-42); May 2018 Permit Application tbls. C-5, C-10, C-11 (AR001693-94, AR001701-04). DEQ confirmed that in performing its BACT analysis, the agency did not consider the potential use of electric motors instead of gas-fired turbines, claiming, with no further explanation, that using electric motors would constitute “redefining the source.” Nov. 9, 2018 Hearing

Transcript 36:22-37:17 (AR010945-46); *see also* Corbett Email (AR006846); Response to Comments 33 (AR009831). According to the Permit, the turbine specifications provided in Atlantic’s application and upon which the permit emission limits are based are not enforceable permit terms. Final Permit 5-6 (AR013942-43).

DEQ also disclosed at the November 9, 2018 meeting that rather than independently considering site suitability pursuant to Va. Code § 10.1-1307(E), it had relied on Buckingham County’s zoning decision on the Compressor Station because, in DEQ’s view, it lacked the “authority to overrule decisions of local officials on ... site suitability matters unrelated to clean air.” Nov. 9, 2018 Hearing Transcript 52:14-17 (AR010961). The County’s Board of Supervisors had issued a special use permit for the Compressor Station on a parcel zoned as A-1 agricultural, notwithstanding that the County’s own zoning ordinance prohibits industrial uses—including gas transmission facilities—in such districts. Certification Form (AR000477-83); *see also* Nov. 14, 2016 Appalachian Mountain Advocates Letter 9-10 (AR000467-68); Sept. 2018 SELC Comments 13-14 (AR008561-62).

During the November 9, 2018 meeting, four Board members—including Samuel Bleicher and Rebecca Rubin—voiced concerns about the potential for the Compressor Station to cause disproportionate harm to the Union Hill community.

Nov. 9, 2018 Hearing Transcript 91:6-92:3, 144:17-25 (AR011000-01, AR011053) (Rubin), 146:20-148:16 (AR011055-57) (Bleicher), 59:11-19, 143:14-144:13 (AR010968, AR011052-53) (Nicole Rovner), 83:20-84:21, 86:9-21 (AR010992-93, AR010995) (Ignacia Moreno). DEQ staff testified that, in the agency's view, there could be no disproportionate impact from a proposed facility where its expected emissions would not exceed NAAQS. *Id.* at 85:14-18 (AR010994). At the conclusion of the meeting, the Board voted to defer a decision on the Permit until its December 2018 meeting, and directed DEQ to provide the Board with additional information regarding Union Hill's demographics. *Id.* at 142:16-23, 143:23-144:13, 148:18-149:2 (AR011051, AR011052-53, AR011057-58).

One week later—with the Board still deliberating over the proposed Permit—Virginia Governor Ralph Northam abruptly removed Mr. Bleicher and Ms. Rubin from their positions and appointed two new members in their place.<sup>3</sup> The Board—with only four of seven members present<sup>4</sup>—reconvened on December 19, 2018. At that time, the Board once again deferred a decision on the Permit and

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<sup>3</sup> Patrick Wilson, *Northam Removes 2 Members from Air Board Before Buckingham Project Vote*, Richmond Times-Dispatch (Nov. 15, 2018), <https://bit.ly/2HvnsAU>; Press Release, Gov. Ralph S. Northam, Governor Northam Announces Administration Appointments (Nov. 16, 2018), <https://bit.ly/2w6LVHn>.

<sup>4</sup> The Board's two newly appointed members did not participate in any meetings regarding the Compressor Station permit, nor did one member who had identified a conflict of interest. *See* Dec. 19, 2018 Hearing Transcript 5:4-9 (AR011666); Jan. 8, 2019 Hearing Transcript 5:5-10 (AR013866).



ordered a limited period for public comment on specific documents concerning demographics and site suitability that the Board had received since the November meetings. Dec. 19, 2018 Hearing Transcript 10:21-13:25 (AR011671-74); DEQ News Release (AR012171-72).

Many of the comments submitted to the Board during this second comment period emphasized Union Hill's status as an environmental justice community and the risk of disproportionate harm. *See generally* AR012173-3845, AR013848-61. The term "environmental justice" has historically meant ensuring that racial minorities and other vulnerable populations "are not disproportionately affected by environmental exposures that have known adverse effects." Advisory Council Letter 1 (AR013407); *see also* DEQ, Glossary, <https://www.deq.virginia.gov/Resources/Glossary/GlossaryE.aspx>. The comments stood in stark contrast to the demographic picture of the area painted by Atlantic and DEQ, both of which relied on census-based desktop tools that use demographic information from larger geographic areas extending well beyond the proposed Compressor Station site. ESRI Report (AR013583-98); Nov. 9, 2018 Hearing Transcript 60:12-61:23 (AR010969-70); Dec. 19, 2018 DEQ Presentation 26-33 (AR011628-35). Using these census-based tools, Atlantic concluded "that no environmental justice community is in the vicinity of the Station." Jan. 2019 Atlantic Comments 1 (AR013579). In its environmental justice analysis of the ACP, FERC similarly

relied on racial demographics of the large census tracts surrounding the Compressor Station site—tracts that encompass more than three-fourths of the entire county—and gave no consideration to the particular makeup of the Union Hill community. Final EIS 4-513 (AR011384).

DEQ also submitted extensive excerpts from FERC’s Final Environmental Impact Statement for the ACP, including FERC’s analysis of an alternative site for the Compressor Station. *Id.* at 3-58 (AR011155). Like the Union Hill site, the Midland Road alternative lies along the existing Transco pipeline and is owned by Atlantic, the two necessary conditions Atlantic identified. Alternatives Analysis (AR011091); Buckingham County, Virginia iGIS, <http://buckingham.interactivegis.com/index.php> (select “Quick Search”; then select “Parcels”; then under “Search By” select “Parcel ID”; then search for “106-48”).<sup>5</sup> Without any consideration of the local population, FERC determined that the Union Hill location was preferable because it would require about one mile fewer of pipeline. Final EIS 3-58 (AR011155). The Board did not consider alternatives in its final site suitability determination. Decision Statement (AR013982).

On January 8, 2019, the four-member Board voted to adopt DEQ’s recommendation and approved the Permit. *Id.*; Jan. 8, 2019 Hearing Transcript

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<sup>5</sup> In its presentation to the Board, DEQ did not mention that Atlantic owns the Midland Road site, suggesting that ownership was a “constraining factor.” Dec. 19, 2018 DEQ Presentation 15 (AR011617).

61:11-63:1 (AR013922-24). The Board incorporated DEQ's memorandum, permit engineering analysis, and response to public comments into its decision to approve the Permit. Decision Statement (AR013982). The Board's decision followed DEQ's testimony that "regardless of the demographics of the area surrounding the compressor station," the Compressor Station's emissions could not expose the surrounding community to disproportionate harm because they were projected to remain below NAAQS levels. Jan. 8, 2019 Hearing Transcript 17:16-18:22, 23:12-25:18 (AR013878-79, AR013884-86) (testimony of Michael Dowd), 36:6-45:4 (AR013897-106) (statement of Chairman Langford); *see also* Response to Comments 29-30, 31 (AR009827-28, AR009829). The Board did not require a health assessment to evaluate the risks to the surrounding community before approving the Permit.

DEQ issued the Permit to Atlantic on the following day. Dowd Letter (AR013938). Petitioners timely filed a petition for review. ECF No. 2-1.

### **SUMMARY OF ARGUMENT**

Under Virginia's approved implementation of the federal Clean Air Act, the ACP's Buckingham Compressor Station is subject to minor new source review. The State Agencies were required to evaluate the best available control technology for each regulated pollutant for the facility. Electric motors, in place of gas-fired turbines, are an available control technology that would eliminate almost all of the

on-site air pollution from the Compressor Station. The State Agencies refused to consider these zero-emissions alternatives based on a misapplication of EPA's "redefinition of the source" doctrine, which EPA developed to address a specific statutory ambiguity in a section of the Clean Air Act that does not apply to this Permit. Moreover, even if the doctrine did apply, the State Agencies made no effort to determine whether consideration of electric motors would constitute a redefinition of the source. Because electric motors do not alter the purpose or underlying function of the Compressor Station, it would be unreasonable to conclude that considering their use in the BACT analysis would run afoul of the doctrine. Thus, failing to consider electric motors as a zero-emissions alternative to polluting gas-fired turbines was a clear error of law.

The Board also had an obligation to consider the reasonableness, health risks, and suitability of the proposed location in the predominantly African-American, residential, historic Union Hill community. The State Agencies decided that compliance with NAAQS, receipt of a local land use permit, and a cursory site evaluation that ignored the surrounding residential community were sufficient to satisfy the health and site suitability factors in the statute. In addition, DEQ mistakenly determined that the racial demographics, preexisting health conditions prevalent in Union Hill, and health risks from Compressor Station pollution were irrelevant to the factors listed in the controlling statute. The State Agencies'

decision to ignore the known, disproportionate health risks of pollution from the Compressor Station to the predominantly African-American Union Hill community was arbitrary and capricious.

### STANDARD OF REVIEW

The State Agencies' approval and issuance of the Permit are reviewed under the APA's arbitrary and capricious standard. Although the APA, by definition, applies to federal agencies, *see* 5 U.S.C. § 701(b)(1), this Court and others have applied the APA's arbitrary and capricious standard to review of state agency actions taken pursuant to federal law in connection with facilities regulated under the Natural Gas Act. *See, e.g., Appalachian Voices v. State Water Control Bd.*, 912 F.3d 746 (4th Cir. 2019) (reviewing state agencies' Clean Water Act Section 401 certification for ACP); *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 243 (D.C. Cir. 2013) (reviewing state agency's failure to act on application for air quality permit for natural gas compressor station).

To survive arbitrary and capricious review, an agency must show that it examined "the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983). An

[a]gency action is arbitrary and capricious if the agency relies on factors that Congress did not intend for it to consider, entirely ignores

important aspects of the problem, explains its decision in a manner contrary to the evidence before it, or reaches a decision that is so implausible that it cannot be ascribed to a difference in view.

*Bedford Cty. Mem'l Hosp. v. Health & Human Servs.*, 769 F.2d 1017, 1022 (4th Cir. 1985). A decision found to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” must be vacated.

5 U.S.C. § 706(2)(A).

## ARGUMENT

### **I. THE STATE AGENCIES ERRED BY FAILING TO CONSIDER ELECTRIC MOTORS AS ZERO-EMISSION ALTERNATIVES TO GAS-FIRED TURBINES.**

In reviewing an application for a new stationary source permit, the State Agencies are required to consider “the maximum degree of emission reduction for any pollutant” that they determine “is achievable ... through the application of production processes or available methods, systems and techniques ... for control of such pollutant.” 9 Va. Admin. Code § 5-50-250(C). A new stationary source like the Compressor Station shall apply this “best available control technology for each regulated pollutant” not exempt by the regulations. *Id.* § 5-50-260(B).

But in their review, the State Agencies declined to consider an available method that would eliminate almost all of the air pollution from the Compressor Station: the use of electric motors instead of gas-fired turbines to power the compressors. The State Agencies’ failure to consider electric compressors was

based on an improper use of the federal “redefining the source” doctrine, which is not applicable to a Virginia permit issued under state law for a minor new source like the Compressor Station. Further, even if the doctrine did apply to this Permit, the State Agencies did not provide a reasoned analysis for why its use would prohibit consideration of a zero-emission alternative. As a result, their decision was an error of law in violation of the applicable BACT requirements. *See* 9 Va. Admin. Code § 5, ch. 50; *see Helping Hand Tools v. EPA*, 848 F.3d 1185, 1194 (9th Cir. 2016) (“[F]ailure to consider all available control alternatives in a BACT analysis constitutes clear error.”).

**A. The State Agencies Erred by Applying the “Redefining the Source” Doctrine from the Clean Air Act’s Inapplicable Prevention of Significant Deterioration Program.**

The State Agencies’ sole rationale for refusing to consider electric motors in its BACT analysis was that replacing gas-fired turbines with electric motors would constitute an impermissible “redefinition of the source.” Corbett Email (AR006846) (DEQ did not consider electric compressors because “they would redefine the source”); Response to Comments 33 (AR009831) (stating that replacement of a natural gas turbine with an electric turbine “constitutes redefinition of the source and is not considered in Virginia’s BACT determination” for the Compressor Station); Nov. 9, 2018 Hearing Transcript 36:22-37:17 (AR010945-46).

But the State Agencies cannot rely on EPA's doctrine of redefinition of the source because that doctrine is applicable *only* to an agency's review of a Prevention of Significant Deterioration ("PSD") permit, and the Permit at issue is not a PSD permit. Indeed, to Petitioners' knowledge, the doctrine has only been considered *once* in a reported opinion as applied to a non-PSD permit. In that case, the state environmental hearing board expressed doubt that redefining the source jurisprudence was applicable to a permit that, like the Permit here, was a non-PSD permit issued pursuant to state regulations. *Snyder v. Pennsylvania*, No. 2015-027-L, 2015 WL 9590755, at \*7-9 (Pa. Env'tl. Hr'g Bd. Dec. 21, 2015) (referring to redefinition of the source case law arising in the federal PSD context, "we are not convinced that it is even appropriate to be looking at federal jurisprudence regarding BACT" because "Pennsylvania has primacy over air quality regulation and its program is in certain respects stricter than the federal program"). Further, the State Agencies provided no explanation or authority for their reliance on the redefining the source doctrine here.

- 1. EPA developed the redefinition of the source doctrine to address a statutory ambiguity unique to the PSD program that is not present here.**

EPA—the federal agency that issues, or delegates to states to issue, permits under the Clean Air Act's PSD program—developed the redefinition of the source doctrine. The PSD program requires BACT for certain new major sources of air



pollution. *See* 42 U.S.C. §§ 7471, 7475(a)(4). The doctrine limits the scope of a PSD permitting agency's BACT analysis. Pursuant to the doctrine, EPA generally does not require redesigning a facility as *proposed* by the permit applicant as part of its BACT review in the PSD program. *Sierra Club v. EPA*, 499 F.3d 653, 654 (7th Cir. 2007) (citing EPA, *New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting* B.13 (1990) ("NSR Manual")).

Critically, EPA formulated the redefinition of the source doctrine for one reason alone: to resolve a perceived ambiguity between two federal PSD statutory provisions that are not applicable to the Permit here. *See* 42 U.S.C. §§ 7479(3) (definition of BACT under PSD) and 7475(a)(1), (4) (limiting the application of BACT to a PSD permit applicant's "proposed facility"); *In re Prairie State Generating Co.*, 13 E.A.D. 1, 2006 WL 2847225, at \*16 (EAB 2006) (explaining EPA's position that redefining the source policy "represents a permissible resolution of ambiguity found in the [Clean Air Act] statutory text of sections 165 and 169 [42 U.S.C. §§ 7475 and 7479]"), *aff'd sub nom. Sierra Club*, 499 F.3d 653.

The question for EPA was whether the PSD requirement is limited by another PSD provision restricting BACT review to the applicant's "proposed facility." 42 U.S.C. §§ 7479(3), 7475(a)(1), (4). Under the doctrine, a permitting

agency must consider all enumerated means of lowering emissions, provided that such technologies would not “regulate the applicant’s objective or purpose for the proposed facility.” *Helping Hand*, 848 F.3d at 1195. EPA “gives central importance to ‘how the permit applicant defines the proposed facility’s purpose or basic design’” when it considers a PSD permit. *In re N. Mich. Univ. Ripley Heating Plant*, 14 E.A.D. 238, 2009 WL 443976, at \*16 (EAB 2009).

To determine whether a given technology impermissibly redefines the source, EPA follows a two-step process. *Helping Hand*, 848 F.3d at 1194. First, the applicant itself defines the facility’s purpose. *Id.* Second, EPA determines which elements of the facility as proposed can be changed to reduce emissions without disrupting the applicant’s purpose. *Id.* Both prongs of that test afford deference to the applicant’s “proposed facility.”

But here, the Permit was not issued under the PSD program. *See* Final Permit Analysis 7 (AR013970). Unlike the federal Clean Air Act, which only requires a BACT review for PSD permits, Virginia law is more stringent, requiring BACT for *all* new stationary sources, including minor new sources like the Compressor Station. 9 Va. Admin. Code § 5-50-260(B). The BACT requirement applicable to this Permit comes from those Minor New Source Review regulations, which are distinct from EPA’s Major Source PSD regulations and from Virginia’s PSD regulations.

**2. The State Agencies provided no explanation for applying the redefinition of the source doctrine to a non-PSD permit.**

There is no basis for importing the PSD redefinition of the source doctrine here. And the State Agencies made no effort to provide a reason for using the doctrine. The federal PSD provisions require that “the *proposed facility* is subject to [BACT].” 42 U.S.C. § 7475(a)(4). But Virginia’s regulations governing non-PSD permitting do not contain any language suggesting an intent to defer to an applicant’s “proposed” design. Thus, the State Agencies must consider “the maximum degree of emission reduction for any pollutant” that they determine “is achievable ... through the application of production processes or available methods, systems and techniques ... for control of such pollutant.” 9 Va. Admin. Code § 5-50-250(C). There is no statutory basis for limiting that analysis to defer to the applicant’s proposed design.

Elsewhere in its review, DEQ recognized that consideration of law from the PSD context is inappropriate to the Permit. In its response to comments requesting consideration of electric motors, DEQ said that it would be improper to consider “federal Environmental Appeals Board determinations and EPA guidance [that] must be considered in a delegated state’s PSD review” because “this draft permit is a Virginia-specific minor new source review action.” Response to Comments 33 (AR009831). But the redefinition of the source doctrine is exclusively EPA’s

interpretation. The State Agencies cherry-picked when and when not to apply federal guidance without a rational explanation.

DEQ responded similarly to comments it received urging the agency to conduct a “top-down” BACT review for the Compressor Station. Response to Comments 34-35 (AR009832-33). As DEQ rightly responded, “[a] top-down analysis is a specific procedure for making a BACT determination used by EPA and many states in *major new source review* permit decisions”—in other words, in PSD permit decisions. *Id.* at 34 (emphasis added). The redefining the source doctrine is employed by EPA at that first step of a top-down analysis, in which the PSD permitting agency identifies and lists all available control options, excluding from that list all options that would redefine the source. *In re Prairie State*, 2006 WL 2847225, at \*15 (discussing step-one elimination of a control technology that would redefine the source). On the one hand, DEQ rejected a top-down BACT analysis because this is not a PSD permit; on the other hand, DEQ invoked a doctrine that is solely applied to PSD permits. DEQ cannot have it both ways. If EPA’s top-down BACT analysis is inapplicable to Virginia’s minor new source permitting framework, so too is the redefinition of the source doctrine.

Because the redefining the source doctrine was the sole basis offered by the State Agencies for not considering electric motors and because that doctrine does

not apply to BACT for this kind of permit, their decision was arbitrary, capricious, or otherwise not in accordance with law.

**B. Even If the Doctrine Applied, the State Agencies' Conclusion That Using Electric Motors Would "Redefine the Source" Was Unsupported and Contrary to Law.**

Even if the State Agencies had been justified in importing the redefining the source doctrine here, their conclusion that electric motors would redefine the source was unsubstantiated and wrong on the merits. DEQ failed to explain why electric motor-driven compressors would "redefine the source," rendering its conclusion that they would do so arbitrary and capricious. Gas pipeline compressors elsewhere employ electric motors and fulfill precisely the same purpose as the Buckingham facility. Considering similar technology here would not involve redefining the source.

**1. The State Agencies offered no explanation for their conclusion that using electric motors would redefine the source.**

A permitting agency invoking the redefinition of the source doctrine must evaluate whether a given control technology that could reduce emissions would actually constitute an improper redefinition of the source. *Helping Hand*, 848 F.3d at 1194. "Redefining the source" is not a magical incantation that relieves the agency from the responsibility of evaluating and explaining its decision. Rather, the permitting agency must "provide a rational explanation of why" a particular

technology would redefine the source. *In re Desert Rock Energy Co.*, 14 E.A.D. 484, 2009 WL 3126170, at \*41 (EAB 2009). A rational explanation is particularly important where “the applicant itself had indicated in its initial application that [the technology] could be considered for such a facility (i.e., could satisfy its business purpose).” *Id.* at \*41. As explained below, Atlantic indicated that electric motors could be considered for another compressor station along the pipeline.

EPA has developed a two-step process for determining whether a technology redefines the source: The permitting agency must (1) identify the object or purpose of the Compressor Station and (2) take a “hard look” to determine which design elements are inherent to that purpose. *See Helping Hand*, 848 F.3d at 1194. A state agency issuing a PSD permit is not required to adhere to EPA’s two-step process, *In re Am. Elec. Power Serv. Corp.*, 2009 WL 7698416 (EPA Dec. 15, 2009), but when it invokes the doctrine “to justify its compliance with the [Clean Air] Act,” the agency must either “remain faithful to EPA’s approach,” or “adopt an alternative approach and identify a statutory foundation for such approach.” *Id.*

The doctrine’s applicability is not absolute, even in the PSD context. The redefinition of the source doctrine in the PSD program is flexible, granting “states...discretion to engage in a broader analysis if they so desire.” NSR Manual B.13. If the State Agencies apply the redefining the source doctrine to Virginia’s Minor New Source Review BACT determination, they have to decide where to

draw that line and explain their decision. Hence, even in the PSD permitting context, a state agency cannot simply intone the magic words, “redefining the source” to make the proposed alternative approach disappear. It must instead either go through EPA’s two-step process or explain why it has adopted an alternative means of line-drawing. The State Agencies did neither here.

An agency following EPA’s approach to determining when redefinition of the source occurs must answer the “crucial question where control technology ends and a redesign of the ‘proposed facility’ begins.” *Sierra Club*, 499 F.3d at 654. That crucial question comes down to whether the proposed technology would “disrupt[] the applicant’s basic business purpose,” *Helping Hand*, 848 F.3d at 1194, or require a design change that would “call into question [the facility’s] existence.” *In re Prairie State*, 2006 WL 2847225, at \*18.

Here, the State Agencies made no effort to grapple with that fundamental question. As a result, they failed to provide any explanation—much less a rational one—for their position that electric motor-driven compressors would redefine the source. DEQ dismissed consideration of electric motor-driven compressors by stating—without explanation—that it “has determined that wholesale replacement of a natural gas turbine (the affected emission unit) for an electric turbine (a completely different process unit with a different energy source) constitutes redefinition of the source.” Response to Comments 33 (AR009831). And the

Board provided no additional analysis before approving the Permit. *See* Decision Statement (AR013980).

**2. The use of electric motors would not redefine the source under EPA's two-step analysis.**

Application of EPA's two-step process here would lead to the conclusion that replacing the Compressor Station's gas-fired turbines with electric motors would not redefine the source. The purpose of the Compressor Station is "to provide compression to support the transport of natural gas." Sept. 2015 Permit Application 5 (AR000010). And the record is devoid of evidence that the engines that drive the compressors are "inherent" design elements that, if changed, would "call into question the [facility's] existence" or disrupt Atlantic's business purpose in any way. *In re Prairie State*, 2006 WL 2847225, at \*19. Were Atlantic to install electric motor-driven compressors, the Compressor Station would remain functionally identical.

Examples of technologies that the courts and EPA's Environmental Appeals Board have found to constitute redefinition of the source are instructive. These decisions confirm that requiring electric motor-driven compressors properly fall on the control-technology side of the line. In one case, EPA granted a logging company a PSD permit to construct a new cogeneration power plant at its lumber mill, which was designed to burn wood-waste from the mill. *Helping Hand*, 848 F.3d at 1189-90. The permit was challenged on the ground that the permitting



agency should have considered solar power and a greater natural-gas fuel mix in its BACT review. *Id.* at 1194. The Ninth Circuit affirmed EPA’s decision not to do so. *Id.* at 1198. Such a change would have disrupted “the key purpose” of burning “biomass waste it produces from mill operations.” *Id.*

Similarly, in *In re Prairie State*, the Sierra Club challenged the issuance of an operating permit for a “mine-mouth” coal plant—one that sources its coal directly from a coal seam where the plant would be located. 2006 WL 2847225, at \*5. Sierra Club argued that the permitting agency should have considered requiring the plant to source its coal not from the on-site coal seam, but from a thousand miles away, because the distant coal was lower in sulfur content and would thus cause fewer harmful emissions. *Sierra Club*, 499 F.3d at 654. Illinois EPA determined that the business purpose of the facility was to produce “electricity from a dedicated 30-year supply of coal” and concluded that requiring the applicant to ship coal across the country would redefine the source by disrupting that business purpose. *In re Prairie State*, 2006 WL 2847225, at \*19.

In both *Sierra Club* and *Helping Hand*, the agency determined, after taking a hard look, that the very purpose of the facility would be called into question should the requested technology be considered. In both instances, the proposed facility’s very purpose was tied to the fuel used to operate it. By contrast, Atlantic did not identify the use of natural gas-fired turbines as an aspect of the facility’s purpose.

The Compressor Station is equally useful to Atlantic's purpose—to move gas through a pipeline—whether its compressors are powered by natural gas-fired turbines or electric motors.

**3. Pipeline builders routinely use electric motors to perform the same function as gas-fired turbines.**

Builders of natural gas pipelines commonly use electric motors to power compressor stations like the one proposed for Union Hill. Sept. 2018 SELC Comments 26 (AR008574). For instance, when upgrading an existing compressor station in Loudon County, Dominion Energy itself chose to install a new electric-driven compressor, a decision FERC noted would limit emissions “to negligible fugitive emissions of transported natural gas.” *Dominion Energy Cove Point LNG, LP*, 162 FERC ¶ 61,056, at ¶ 47. Equipped with an electric-driven compressor, the Loudon County Compressor Station continues to fulfill its sole purpose: to compress natural gas for movement along the pipeline. The existence of functionally identical compressor stations powered by electric motors contradicts DEQ's conclusory assessment that consideration of electric motor-driven compressors for the Compressor Station would constitute redefinition of the source. *See In re Hibbing Taconite Co.*, 2 E.A.D. 838, 1989 WL 266359, at \*3-4 (EAB 1989) (holding that where the applicant would continue to manufacture the same product regardless of fuel source, and other similar plants used the alternative

fuel source, consideration of the alternative fuel source was within the scope of BACT).

Given the use of electric compressors at other compressor stations, it is not surprising that in its permit application for one of the other two compressor stations along the ACP, Atlantic acknowledged that “[e]lectric driven compressors are an option.” Mockingbird Hill Appl. 20-21, *Atl. Coast Pipeline, LLC*, Dkt. No. CP15-554-000 *et al.* (Oct. 1, 2015) (FERC eLibrary No. 20151001-5220).

The State Agencies had an obligation to consider the “application of production processes or available methods, systems and techniques” that would control emissions from the Compressor Station. 9 Va. Admin. Code § 5-50-250(C). By the plain terms of that regulation, unencumbered by the limitations of the PSD permitting framework, that Virginia-law BACT analysis should have considered electric motors. Instead, the agencies invoked the inapplicable redefinition of the source doctrine to justify their refusal to consider electric motor-driven compressors, a key control technology that would reduce on-site harmful emissions from the compressors to zero. The State Agencies’ unwarranted reliance on the doctrine, along with its erroneous conclusion that electric motors would redefine the source, were errors of law and arbitrary and capricious.

**II. THE STATE AGENCIES VIOLATED VIRGINIA CODE SECTION 10.1-1307(E) BY FAILING TO ASSESS THE COMPRESSOR STATION'S DISPROPORTIONATE HEALTH IMPACTS ON THE PREDOMINANTLY AFRICAN-AMERICAN UNION HILL COMMUNITY AND THE SUITABILITY OF THE SITE.**

The Board had an independent duty to consider the reasonableness of permitting the Compressor Station at its proposed site in Buckingham County. Va. Code § 10.1-1307(E). Namely, the Board was required to consider the character and degree of possible injury to the health and safety of the historic Union Hill community. *Id.* The Board failed to meet this obligation. It did not consider the risk of disproportionate health impacts on the predominantly African-American community neighboring the Compressor Station and impermissibly relied on a flawed county permit for its site suitability analysis. As a result, its decision was arbitrary and capricious.

**A. The State Agencies Failed to Meet Their Obligation Under Section 10.1-1307(E) to Consider the Potential for Disproportionate Health Impacts on Union Hill.**

Virginia law mandates that the Board “shall consider facts and circumstances relevant to the reasonableness of the activity involved,” including “[t]he character and degree of injury to, or interference with safety, health, or the reasonable use of property which is caused or threatened to be caused” and “[t]he suitability of the activity to the area in which it is located.” Va. Code § 10.1-1307(E)(1), (3); 9 Va. Admin. Code § 5-170-170(1), (3). Section 10.1-1307(E)

sets forth “the criteria the Board must use in ... approving permits.” *Mirant Potomac River, LLC v. State Air Pollution Control Bd.*, 75 Va. Cir. 117 (2008).

Through this law, “the General Assembly has evinced an intent to grant the Board with broad authority” to control sources of air pollution in the Commonwealth. *Id.*

Here, Section 10.1-1307(E) required the Board to consider the character and degree of injury threatened by the Compressor Station to the community’s health and safety and whether—in light of those threats—the proposed site was suitable. The most relevant facts that the Board had to consider under Section 10.1-1307(E) are the demographics and health risks faced by the predominantly African-American Union Hill community. Pollutants from compressor stations are known to exacerbate asthma. Final EIS 4-513 to 4-514 (AR012077-78). Given that asthma rates are generally higher among African Americans, those populations are “especially sensitive” to increased pollution from compressor stations. *Id.* In addition, such air pollution may increase the risk of lung cancer. *Id.*

Instead of conducting the required analysis, the State Agencies committed four critical errors: (1) they excluded consideration of health risks from their site suitability review; (2) they relied on the unfounded assumption that permit limits within NAAQS always equate to no disproportionate health risks; (3) the Board failed to make any findings regarding the character of the population under threat after receiving conflicting demographic information; and (4) the Board failed to

require a pre-decisional health assessment. Together, these errors kept the Board from considering whether the Compressor Station would subject Union Hill to disproportionate health risks and resulted in an arbitrary and capricious decision.

**1. The State Agencies erred by concluding that demographic and health conditions in the Union Hill community were not relevant to the health, safety, and site suitability factors under Section 10.1-1307(E).**

The State Agencies explicitly *excluded* health impacts and a demographic analysis from their site suitability decision. The Board cannot know whether a particular location is “suitable” or what health risks the surrounding population faces unless it evaluates the affected community in relation to the proposed Compressor Station.

Yet from the beginning of the permitting process, the State Agencies showed no intention of completing a thorough site suitability review. For example, DEQ’s response to demands from the public that the State Agencies consider health impacts on Union Hill revealed that it did not understand its responsibility under Section 10.1-1307(E). DEQ mischaracterized the request for a health assessment as a challenge to the County’s zoning decision. Response to Comments 31 (AR009829); Nov. 9, 2018 Hearing Transcript 52:9-55:3 (AR010961-64). DEQ’s response reflected an outdated policy that restricted the Board’s consideration of site suitability to three narrow considerations: whether the Permit met air quality requirements, health impacts only *during an equipment malfunction*, and odor

impacts. Nov. 9, 2018 Hearing Transcript 109:23-110:7 (AR010290-91). But that policy was officially rescinded by the Board in 2008. Dec. 19, 2018 Hearing Transcript 16:16-23 (AR011677).

In December 2018, after the official comment period had closed, DEQ reported its belated site suitability review to the Board. Dec. 19, 2018 DEQ Presentation (AR011603); Dec. 19 Hearing Transcript 37:9-54:16 (AR011698-715). DEQ discussed only three things relating to its site suitability review: (1) Buckingham County's issuance of a special use permit; (2) FERC's Final Environmental Impact Statement, particularly sections on no-action alternative, Compressor Station site alternative, and cultural resources; and (3) the application for Union Hill/Woods Corner designation as a rural historic district. DEQ reiterated that environmental justice concerns were not a factor in its review. Dec. 19, 2018 Hearing Transcript 54:18-20 (AR011715) ("Now let me turn from the topic of site suitability to environmental justice.").

The only factors incorporated into the Board's final decision that mention the Section 10.1-1307(E) factors were DEQ's response to public comments and its Final Permit Analysis. Decision Statement (AR013982); Response to Public Comments 31-32 (AR009829-30); Final Permit Analysis 13 (AR013976). In the Permit Analysis, the only issues that DEQ considered as relevant to "site suitability" were (1) the special use permit issued by the County; (2) the October

2017 site evaluation, which ignored the local residential population; and (3) projected compliance with NAAQS. Final Permit Analysis 13 (AR013976). And, as previously noted, in its response to public comments, DEQ considered environmental justice to be unrelated to site suitability. Response to Public Comments 31 (AR009829) (declaring that commenters had “mixed the concept of environmental justice as discussed above with the requirement to determine site suitability”).

Information related to the risk of disproportionate health impacts or the demographics of Union Hill was notably absent from both DEQ’s review and the Board’s decision. But the State Agencies never explained why they considered concerns relating to “environmental justice” to be separate from the Section 10.1-1307(E) factors. Nor could they. Environmental justice and related disproportionate health risks are the very kinds of circumstances that the Board needed to consider. Given Section 10.1-1307(E)’s explicit requirement that the Board consider health and safety impacts particular to this site, DEQ had no conceivable reason to exclude health considerations and related demographic information from its site suitability assessment. *Sierra Club v. U.S. Dep’t of the Interior*, 899 F.3d 260, 294 (4th Cir. 2018) (finding agency action arbitrary and capricious where agency failed to explain inconsistencies between its analysis and its statutory objective).



Consideration of the character of potential health risks from the Compressor Station in Union Hill required careful assessment of environmental justice considerations: the demographic makeup of the community, existing health issues—determined through a pre-decisional health assessment—and assessment of the risks of disproportionate harm. Failing to consider these critical factors rendered the Board’s decision arbitrary and capricious. *See Sierra Club*, 899 F.3d at 270 (agency’s decision must be based on consideration of relevant factors). Notably, after reviewing those factors, the Governor’s Advisory Council on Environmental Justice called on the State Agencies to “suspend the permitting decision” for the Compressor Station. Advisory Council Letter 2 (AR013408).

**2. The State Agencies Wrongly Relied on Compliance with NAAQS to Support a Finding of No Disproportionate Impact.**

The Board short-circuited a meaningful site suitability and health review. It accepted DEQ’s assumption that meeting NAAQS is the same thing as preventing risk of disproportionate health impacts. Response to Comments 29 (AR009827); Dec. 19, 2018 DEQ Presentation 35 (AR011637); Dec. 19, 2018 Hearing Transcript 67:2-19 (AR011728) (both citing FERC’s conclusion that because air emissions would not exceed “regulatory permissible levels,” there could not be any “disproportionately high and adverse impacts on environmental justice populations”); Jan. 8, 2019 Hearing Transcript 18:2-18 (AR013879) (concluding

that Compressor Station will not cause disproportionate impacts because pollution will purportedly remain below air quality standards).

Such an assumption is wrong for two reasons. First, it effectively reads Section 10.1-1307(E) out of Virginia law. Second, it led the Board to ignore health impacts from air toxics and particulate matter emissions that are known to pose substantial health risks, even at levels within NAAQS.

- a. The Board's reliance on NAAQS foreclosed consideration of health effects as required by Section 10.1-1307(E).*

The State Agencies' reliance on permit emission limits within NAAQS for its finding was contrary to applicable law. Virginia law requires more than compliance with minimal air quality standards before making permitting decisions. The "cooperative federalism" structure of the Clean Air Act "expressly allow[s] states] to employ standards more stringent than those specified by the [baseline] federal requirements." *Bell v. Cheswick Generating Station*, 734 F.3d 188, 190 (3d Cir. 2013) (citing 7 U.S.C. § 7416). Virginia's regulations implementing the Clean Air Act ensure that required baselines will be met. 9 Va. Admin. Code § 5-80-850. But Virginia has also exercised its authority to impose additional requirements above and beyond that baseline.

Specifically, Virginia incorporated 9 Va. Admin. Code § 5-170-170—the site suitability requirement discussed above—into its State Implementation Plan.

The inclusion of the site suitability requirement in Virginia's implementing regulations means that the Commonwealth's policy of requiring more than minimal compliance with NAAQS is federally enforceable. Once compliance with air quality standards is met, a permit "may be granted"—not shall be granted. *Id.* § 5-80-850. Even when those standards are met, the Board has a non-discretionary, non-delegable duty to consider additional health and site suitability factors before it can issue a permit.

The State Agencies assumed that compliance with NAAQS was an adequate substitute for health and site suitability review. Jan. 8, 2019 Hearing Transcript 18:2-18 (AR013879). This assumption is unfounded. And it effectively removes the health and site suitability provisions from Virginia law altogether, in violation of fundamental rules of statutory interpretation. It is necessary to "give effect to every provision and word in a statute and avoid any interpretation that may render statutory terms meaningless or superfluous." *Discover Bank v. Vaden*, 396 F.3d 366, 369 (4th Cir. 2005) (quoting *United States v. Ryan-Webster*, 353 F.3d 353, 366 (4th Cir. 2003)). The same rule applies to interpreting regulations. *Black & Decker Corp. v. C.I.R.*, 986 F.2d 60, 65 (4th Cir. 1993). If compliance with minimal requirements of the Clean Air Act foreclosed additional review, the site suitability and health considerations of 9 Va. Admin. Code § 5-170-170 would be superfluous.

Thus, the State Agencies' conclusion that there would be no disproportionate health impact on Union Hill was contrary to federally enforceable sections of Virginia's air pollution control law.

- b. Relying on permit levels within NAAQS caused the Board to ignore known adverse health risks from exposure to air toxics and particulate matter emissions.*

As explained above, compliance with NAAQS is not a substitute for the Board's site suitability and health review. The relevant inquiry is: (1) whether the location of the Compressor Station will expose the Union Hill community to increased levels of harmful air pollution; and (2) whether such exposure will adversely affect the health of that community, which suffers from documented, preexisting health problems. These factors should have been considered by the State Agencies prior to issuing the Permit. Va. Code § 10.1-1307(E).

- i. Toxic Air Pollutants

Atlantic's air modeling demonstrates that people living within two kilometers of the Compressor Station will be exposed to higher levels of toxic pollutants than anyone else in the county. Modeling Files (AR013986).<sup>6</sup> For

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<sup>6</sup> Petitioners rely on the following files from the Administrative Record: Buckingham\_DominionACP\_AQModeling\_July18.zip, AERMOD (FMD\_av.dat in sub-folder AERMOD/ToxicsAnalysis/Formald\_Ann/ and FMD\_xy.dat in sub-folder AERMOD/ToxicsAnalysis/Formald\_1hr/).

example, the Harper family will, on average, be exposed to formaldehyde, a carcinogen, at a concentration 40 times that of people living 6-12 miles away. *Id.*

The Compressor Station will emit more than 30 toxic air pollutants. May 2018 Permit Application tbl. C-5 (AR001693-94). The Board did not set limits for the majority of these pollutants, Final Permit 24-25 (AR013961-62), including the known carcinogens benzene and various polycyclic aromatic hydrocarbons. These toxic emissions pose risks to human health and can vary widely from day to day. For example, a compressor station in Pennsylvania was observed to emit dangerous amounts of ethylbenzene, butane, and benzene on some days and hardly detectable amounts on other days, resulting in average actual emissions that did not accurately reflect threats to human health.<sup>7</sup> The Permit thus likely underestimates potential health risks posed by the Compressor Station. Sept. 2018 CBF Comments 13-15 (AR008352-54).

The Permit provides only formaldehyde and hexane limits for the turbines. The annual formaldehyde limit for the entire station is 4.25 tons. Final Permit ¶ 24 (AR013961). The hexane limit is hourly and varies by size of the turbine. *Id.* at 25. Emissions of formaldehyde and hexane are largely dependent on the pressure

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<sup>7</sup> David R. Brown et al., *Human Exposure to Unconventional Natural Gas Development: A Public Health Demonstration of Periodic High Exposure to Chemical Mixtures in Ambient Air*, J. Env'tl. Sci. & Health 461-62 (2015), <https://bit.ly/2Kga5ru> (Southwest Pennsylvania Environmental Health Project study, cited in Final EIS 4-514 (AR011385)).

of the gas in the pipeline. Sept. 2018 CBF Comments 15-18 (AR008354-57). Based on pressure level information provided by Atlantic and the physical properties of natural gas under pressure in a large-diameter pipeline, Atlantic's emissions estimates likely underestimate the amount and concentration of formaldehyde and hexane that will be released from the Compressor Station. *Id.* at 3, 17-18 (AR008342, AR008356-57).

The Permit does not require specific monitoring to determine compliance with the toxic air pollutant limits. The Permit merely states that compliance with the emission limits "may be determined" in accordance with one of eight conditions. Final Permit 25 (AR013962). But of those eight conditions, none are specific to hexane; only two refer to formaldehyde and provide for only infrequent testing. *Id.* Compliance with the only two toxic limitations in the Permit is not assured.

Considering the significant long-term toxic pollution exposure and lack of monitoring, the Board acted arbitrarily by not considering health risks posed by those emissions.

ii. Particulate matter

Fine particulate matter (PM<sub>2.5</sub>) generated from burning gas at the Compressor Station will have an adverse effect on human health in Union Hill. Thurston Report (AR008388-427). PM<sub>2.5</sub> is one of the deadliest air pollutants in

part due to its ability to “lodge deep in the lungs” and “pass easily into the blood stream.” Dyrszka Comments 24 (AR008100); *see also Am. Trucking Ass’ns, Inc. v. EPA*, 283 F.3d 355, 360 (D.C. Cir. 2002) (recognizing the “lack of a threshold concentration below which [particulate matter and ozone] are known to be harmless”).

Dr. George Thurston, Director of the Program in Exposure Assessment and Human Health Effects at the New York University School of Medicine, evaluated the particulate matter emissions from the Compressor Station. Thurston Report (AR008388-427); Thurston Testimony 1-5 (AR013100-04); Sept. 2018 CBF Comments 6 (AR013110). Dr. Thurston explained that PM<sub>2.5</sub> harms human health *at any level* of exposure, including levels below NAAQS. Thurston Report 11 (AR008400). Health effects include decreased lung function, more frequent asthma symptoms, increased asthma and heart attacks, more frequent hospital visits, increased deaths, and shortened life expectancy. *Id.* at 4-12 (AR008393-401).

Thus, *any* increase in PM<sub>2.5</sub> will increase the risk of these adverse effects to the Union Hill community, even when NAAQS are not violated. *Id.* at 13-17 (AR008402-06). Specifically, adverse health effects of long-term PM<sub>2.5</sub> exposure will rise by at least 21% within a two-mile radius of Union Hill, while health effects of short-term exposures will rise by at least 44%. *Id.* at 31 (AR008419-20).

In its application, Atlantic estimated that the Compressor Station would emit over 43 tons of particulate matter a year, a daily increase of 69%. May 2018 Permit Application tbl. 1.1 (AR001614); FEIS 4-561 tbl. 4.11.1-11 (AR011432). Atlantic's air modeling reveals that particulate matter will be the highest within one mile of the Compressor Station. Modeling Files (AR013986);<sup>8</sup> Thurston Report (AR008388-427); Thurston Testimony 2-3 (AR013101-02). And the most affected population lives along Union Hill Road and Shelton Road. Final Modeling Report 21 (AR001799). The Harper family homestead, for example, will be exposed to PM<sub>2.5</sub> at an average annual concentration that is over 40 times the concentration experienced by people living 6 to 10 miles away. *See supra* note 8. People living in this area are predominantly African-American; many suffer from preexisting health conditions, Household Study (AR013166-67); and many live at or below the poverty level. Finley-Brook Report 5 (AR013423).

Given this information, it was arbitrary and capricious for the State Agencies to ignore these risks to human health from the Compressor Station when considering the factors in Section 10.1-1307(E).

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<sup>8</sup> Petitioners rely on the following files from the Administrative Record: Buckingham\_DominionACP\_AQModeling\_July18.zip, AERMOD (PM25.plt in the sub-folder AERMOD/NAAQSAnalysis/PM25\_Ann/ and PM25.plt in the sub-folder AERMOD/NAAQSAnalysis/PM25\_24hr/).



**3. The State Agencies erred by making no findings with regard to the demographics and health characteristics of the people living in Union Hill.**

The State Agencies made no findings on the contested factual issue of the demographics and health characteristics of Union Hill. Despite access to a wealth of information, the Board failed to make any findings regarding the demographics of Union Hill that would have allowed for a meaningful assessment of the likelihood of disproportionate harm. *See Genuine Parts Co. v. EPA*, 890 F.3d 304, 312 (D.C. Cir. 2018) (agency decision is arbitrary and capricious where agency ignores evidence contradicting its position).

In response to public concern regarding the environmental injustice of siting the Compressor Station in Union Hill, the Board deferred action on the Permit in November and again in December 2018. Nov. 9, 2018 Hearing Transcript 148:18-149:2 (AR011057-58); Dec. 19, 2018 Hearing Transcript 100:23-103:2 (AR011761-64). The State Agencies initiated a second, truncated public comment period over the winter holidays. Announcement (AR012171). But following receipt of comments, the Board ultimately made no findings regarding the demographics of or health risks to Union Hill. Decision Statement (AR013982). *See Fred Meyer Stores, Inc. v. NLRB*, 865 F.3d 630, 638 (D.C. Cir. 2017) (finding agency action was arbitrary and capricious when “it evidences a complete failure to reasonably reflect upon the information contained in the record and grapple with

contrary evidence”). Instead, the State Agencies dismissed the relevance of demographic data, concluding that compliance with NAAQS was dispositive. Decision Statement (AR013982); Dec. 19, 2018 Hearing Transcript 70:1-6 (AR011731).

The Board disregarded a wealth of information critical to evaluation of site suitability and health risks to Union Hill. For example, the Board had the results of a detailed study, conducted by a Ph.D. anthropologist, demonstrating that 84% of the people living closest to the proposed Compressor Station are non-white, with a majority of those being African-American or biracial. Household Study Report (AR012148-65); Jan. 2019 Household Study Summary (AR013166-67). Scholars familiar with participatory research validated the methods and results of the Household Study. *See, e.g.*, Igoe Comments (AR013087-88); Finley-Brook Report 6 (AR013424). The Household Study results were further supported by detailed mapping analysis and drone footage of households surrounding the Compressor Station site. Metts Comments (AR013438-57); Burkett Comments (AR013697-703).

The Household Study also revealed critical information about preexisting health conditions in Union Hill. Out of the 67 households that provided health information, 35 reported suffering from preexisting medical conditions, chiefly respiratory and heart conditions. Jan. 2019 Household Study Summary

(AR013167). Many elderly residents reported suffering from chronic respiratory ailments such as asthma, chronic obstructive pulmonary disease, bronchitis, allergies, and other heart and lung ailments. *Id.* And many of these residents reported heart disease and other conditions that would make them particularly susceptible to air pollution from the Compressor Station. *Id.* Based on a review of the Household Study and relevant scientific literature, Dr. Thurston concluded that the residents of Union Hill are an “especially vulnerable population” that “will suffer especially increased health risks associated with the operation” of the Compressor Station. Thurston Testimony 2-4 (AR013101-03).

The Board also had before it the results of less reliable demographic reports: (1) the preliminary “screening” tool from EPA; (2) FERC’s review of the demographics of census tracts surrounding the Compressor Station site; and (3) Atlantic’s census-based population estimates from ESRI. Dec. 7, 2018 SELC Comments (AR011527-30); Dec. 19, 2018 DEQ Presentation 35 (AR011637); Final EIS 4-513 (AR012077); ESRI Report (AR013583-98). The screening tools used by Atlantic and DEQ produced estimates of the population based on census data from much larger areas, such as a census tracts or blocks. But when the relevant affected population is in a smaller pocket of those geographically larger census areas, as is the case in Union Hill, those tools cannot provide an accurate picture of the composition of the affected community. *See Metts Comments 2*

(AR013439); Dec. 7, 2018 SELC Comments (AR011527-30). DEQ acknowledged that the numbers provided by EJSCREEN are not reliable, but nevertheless presented those figures to the Board. Nov. 9, 2018 Hearing Transcript 61:7-10 (AR010969); Dec. 19, 2018 DEQ Presentation 26-33 (AR011628-35).

The Board was faced with conflicting, relevant data: a detailed local study that assessed both the composition and health characteristics of the particular, threatened local households; and census-based population estimates from DEQ, FERC, and Atlantic. The Board should have made an explicit finding about which of these reports provided the more reliable demographic picture of Union Hill. The best evidence available shows that Union Hill is a classic example of a threatened environmental justice community, one that is particularly vulnerable to pollution from the Compressor Station and that will be disproportionately harmed by that pollution. The Board's failure to make any finding in the face of conflicting, relevant evidence prevented it from conducting a reasoned analysis under Section 10.1-1307(E) and its decision is thus arbitrary and capricious. *See Genuine Parts Co.*, 890 F.3d at 312.

**4. The State Agencies erred by not requiring a pre-decisional health assessment of the Union Hill Community**

Finally, the State Agencies failed to require a pre-decisional health assessment of the community. Given the severity of the risk posed and the

proximity of the station to the minority residents of Union Hill, the Board should have required a full human health assessment prior to issuing the Permit.

The State Agencies received hundreds of requests to conduct a health assessment before issuing a permit. *See, e.g.*, Anderson Comments (AR003631); Adams Comments 1(AR007960); Evans Comments 4 (AR008182); Sahu Comments 15 (AR08354), Advisory Council Letter 3-6 (AR013409-12). Two Board members also inquired about doing a health assessment. Langford Email (AR007280); Dec. 19, 2018 Hearing Transcript 98:15-21 (AR011759). Nevertheless, the State Agencies failed to conduct a pre-decisional health assessment for Union Hill. Instead, DEQ merely assured the Board that it had discussed the option with the Virginia Department of Health and that the Department had “some future planning to do that ... over several years.” *Id.* at 98:23-99:12 (AR011759-60). But the entire purpose of a health risk assessment is to assess risk in order to inform decision-making.

These assessments are routinely conducted before facilities are permitted. *See, e.g.*, South Coast Air Quality Monitoring District Rule 1401 (June 1990).<sup>9</sup> And the Virginia Department of Health told DEQ that such an assessment could be conducted based upon the emissions estimates relied upon by the Board in issuing

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<sup>9</sup> <http://www.aqmd.gov/home/permits/risk-assessment>. Formaldehyde and hexane are specifically identified.

the Permit. VDH Email (AR011476). That information was not communicated to the Board.

Section 10.1-1307(E) and its implementing regulation require the Board to consider site suitability as part of the permitting process—not several years after the Permit has been approved and the Compressor Station long since in operation. Despite being asked to do so and given the risks faced by the Union Hill community, the Board failed to undertake a human health risk assessment prior to issuing the Permit.

**B. By Unduly Relying on a County Zoning Decision, the State Agencies Failed to Independently Evaluate the Suitability of Siting the Compressor Station in Union Hill.**

Virginia regulations make explicit the Board's independent duty to review site suitability. While compliance with local zoning requirements is a prerequisite to issuance of a permit, "such compliance does not relieve the board of its duty under 9 VAC 5-170-170 and § 10.1-1307(E) of the Virginia Air Pollution Control Law to *independently consider* relevant facts and circumstances." 9 Va. Admin. Code § 5-80-1230 (emphasis added).

Disregarding this directive, DEQ initially informed the Board that it lacked "authority to overrule decisions of local elected officials on economic, safety and site suitability matters unrelated to clean air." Nov. 9, 2018 Hearing Transcript 52:14-17 (AR010961); *see also id.* at 109:16-17 (AR011018) ("[B]y statute and

longstanding policy, site suitability is largely a local matter.”). DEQ pointed to the Buckingham County Board of Supervisors’ 2017 issuance of a special use permit for the Compressor Station as largely resolving the question of site suitability. But the Board has an obligation under Section 10.1-1307(E) to independently evaluate site suitability, even when a facility has obtained a local land-use permit. DEQ’s overly-restrictive interpretation to the contrary would remove any role for the Board to conduct a site suitability review and is contrary to Virginia regulations.

Even when the State Agencies ultimately gave limited consideration to site suitability, they afforded undue weight to the County’s zoning decision. *See* Dec. 9, 2018 Hearing Transcript 38:5-8 (AR011699) (“DEQ gave significant weight to the special use permit.”). Reliance on the County’s special use permit was especially misguided here, where the County’s decision was contrary to its own zoning ordinance. The Compressor Station site is zoned A-1 Agricultural, a zoning classification established “for the purpose of preserving and promoting rural land uses,” both light agricultural and residential. Sept. 19, 2016 Appalachian Mountain Advocates Letter 1 (AR000344); Buckingham County Zoning Ordinance 8.<sup>10</sup> The County’s zoning ordinance allows gas transmission facilities, with a special use permit, in Heavy Industrial Districts, *id.* at 31. But

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<sup>10</sup> [http://www.buckinghamcountyva.org/zoning/Copy\\_of\\_Zoning\\_Ordinance\\_6.11.07.pdf](http://www.buckinghamcountyva.org/zoning/Copy_of_Zoning_Ordinance_6.11.07.pdf).

industrial uses like gas transmission facilities are completely prohibited in agricultural districts. *See Bd. of Supervisors v. Gaffney*, 422 S.E. 2d 760, 763 (Va. 1992) (holding that under Virginia law, inclusive zoning districts, such as Buckingham County's A-1 district, allows only those land uses specifically listed in the zoning ordinance). The County Board of Supervisors nevertheless granted Atlantic a special use permit. Certification Form (AR000477-83).

During the permit proceedings, DEQ was on notice that the Compressor Station would be an industrial use incompatible with the County's local land use designation for Union Hill. *See* Nov. 14, 2016 Appalachian Mountain Advocates Letter 9-10 (AR000467-68); Sept. 2018 SELC Comments 13-14 (AR008561-62). And the State Agencies' error is consequential to Union Hill, where land uses are otherwise consistent with the underlying agricultural zoning district. Many in Union Hill trace their ancestry to the Freedmen and Freedwomen who bought farmland and established the community. January 2019 Fjord Comments 14 (AR013169). Others decided to live in Union Hill because of its quiet, rural character. Rose Decl. ¶ 5, *Appalachian Voices* (AR013402). Some continue to raise livestock and engage in farming. Laury Comments 1 (AR008313). The Compressor Station permitting has led to the loss of other planned developments that would have been more suitable for Union Hill's rural, residential character: a planned greenhouse complex and a nearby vineyard and winery. Jan 2019 Fjord



Comments 2 (AR013157). Neighboring residents have reported a drop in home values and reduced interest in the market for real estate. Finley-Brook Report 4 (AR013422).

By basing its determination so heavily on a local zoning decision, the State Agencies abdicated their statutory responsibility to evaluate site suitability. *See Del. Dep't of Nat. Res. & Env'tl. Control v. EPA*, 785 F.3d 1, 16 (D.C. Cir. 2015) (“Administrative law does not permit” agency to “pass[] the entire issue off onto a different agency.”).

### CONCLUSION

For these reasons, the petition for review should be granted, and the Permit should be vacated and remanded to the Board.

Respectfully submitted,

s/ David L. Neal

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Dated: May 31, 2019

## CERTIFICATE OF COMPLIANCE

1. This document complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because, excluding the parts of the document exempted by Federal Rule of Appellate Procedure 32(f), this document contains 12,713 words.

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David L. Neal

SOUTHERN ENVIRONMENTAL LAW CENTER

Dated: May 31, 2019

**CERTIFICATE OF SERVICE**

I hereby certify that on May 31, 2019, I electronically filed the foregoing with the Clerk of Court using the CM/ECF System, which will automatically send e-mail notifications of such filing to all counsel of record.

s/ David L. Neal \_\_\_\_\_

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Dated: May 31, 2019

