

Piedmont Regional Office
RE: Buckingham Compressor Station
4949-A Cox Rd
Glen Allen, VA 23060

E-mail: airdivision1@deq.virginia.gov

Fax: (804) 527-5106

PERMIT NAME:

- Minor Source Construction Permit issued under the authority of the Air Pollution Control Board

APPLICANT NAME AND REGISTRATION NUMBER:

- Atlantic Coast Pipeline, LLC; 21599

FACILITY NAME AND ADDRESS:

- ACP – Dominion Energy Buckingham Compressor Station; 5297 S. James River Hwy, Wingina, VA 24599

Dear Air Pollution Control Board and State Regulators,

I am writing you as a faculty member at the University of Richmond in the Environmental Studies Program and as a member of the Governor's Advisory Council on Environmental Justice (ACEJ). I have spent the past nine months conducting intense environmental and social impact review of the Atlantic Coast Pipeline (ACP)-Dominion Energy Buckingham Compressor Station permitting process. I have reviewed environmental and social impacts of development projects for more than two decades and have focused specifically on energy projects sited in low income and minority areas for the past decade.

Environmental racism

I have observed the situation in Buckingham for the past four years since the ACP proposal. My engagement increased after ACEJ was contacted in March of 2018 by the impacted Union Hill community, Friends of Buckingham, and Yogaville. We created a Pipeline Subcommittee to investigate allegations of environmental racism in Buckingham and at other points along the route of the ACP and the Mountain Valley Pipeline. ACEJ found ample evidence of racial discrimination and documented this in a recent letter to Governor Northam (see [Appendix 1](#) attached to this letter). ACEJ members from across the state reached consensus before expressing our concerns to the Governor. We spoke to impacted residents on various occasions and received hundreds of pages of documentation to support our extremely grave findings.

The proposed compressor station is sited in a historic Freedman community with many families directly descended from enslaved peoples who worked in the tobacco plantation and who have maintained ongoing and direct ties to Union Hill. The erasure of hundreds of African American Union Hill residents from project assessments first by the Federal Energy Regulatory Commission (FERC) and then by Virginian state agencies provides a faulty foundation for the entire permitting process.

Environmental justice in federal and state policies

The Environmental Protection Agency defines Environmental Justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The term has its roots in Civil Rights law, specifically Title VI of the 1964 Civil Rights Act.

Federal policy

The first three elements of Executive Order 12898 of February 11, 1994 on Environmental Justice are (1) to promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) to ensure greater public participation; and (3) to improve research and data collection relating to the health of and environment of minority populations and low-income populations. This comment and dozens of others submitted about this same compressor station discuss how these three points have not occurred in Buckingham prior to and during the permitting process.

State policy

The situation in Union Hill is in direct contrast to the stated objectives of state leaders during the creation of ACEJ. Executive Order 73 states, "The Commonwealth requires a consistent, action-oriented approach to incorporating environmental justice into decision-making."

Under energy objectives, the Code of Virginia, (Title 67. Virginia Energy Plan, Chapter 1. Energy Policy of the Commonwealth § 67-101) seeks to develop "energy resources and facilities in a manner that does not impose a disproportionate adverse impact on economically disadvantaged or minority communities."

It would be in violation of this code if the state were to risk the lives of Union Hill residents with high-pressure and potentially explosive infrastructure. Hundreds of vulnerable residents live within 2-mile blast zone. There is no evacuation plan and there has been inadequate attention to the need for emergency responders. Hospitals are located more than an hour away.

Inadequacy of the 30-day comment period

My research over the past two decades has focused on site review of new energy infrastructure. In particular, my specialty is to assess the involvement of impacted communities, a key stakeholder group. For this reason, I will draw your attention to the September 2018 Resolution of the ACEJ, submitted to Governor Northam (see [Appendix 2](#)), reinforcing the community's request for a 60-day total public comment period. The Governor's Advisory Council heard arguments from the impacted community that included the following: 1) the rural location means there is inadequate access to internet to obtain project information, 2) due to a disproportionately high percentage of elderly residents in the direct vicinity, and their lack of experience reading air regulations, the technical nature of the air permit requires sufficient time for people to understand the specific details, 3) a printed copy of the air permit application was not made available in Buckingham until the review period was half over, and 4) local community organizations requested an extension with additional details on why more time was required.

Having spent many hours with impacted community members as they prepared comments, I confidently assert that the 30-day period is an insufficient amount of time for Union Hill. In my professional opinion, the pressure the 30-day period caused to a community already struggling to deal with the scope of this situation was highly inappropriate. I have seen elderly African American residents who live within one mile of the compressor station in tears while trying to prepare these comments. Retired individuals in their 70s would take materials home to study late into the night and come back again in frustration and despair having written pages of concerns but uncertain of how to word them so anyone would listen. In my presence, residents were informed by DEQ that if they did not word comments to address technical details and those considered relevant by DEQ that their comments would be marked as irrelevant and disregarded. I fear that the state is too distant to understand the degree of stress this process brought to this vulnerable community. The vast and broad concerns, some with potentially fatal consequences like fire and explosion, which keep impacted community members awake at night, should not be marked as irrelevant in the public commenting process because of the narrowness and fragmentation of state permitting authority. Community concerns never fit anywhere properly according to the state agencies we asked. If nearly all dire local concerns are repeatedly outside the scope of the state permitting authority, there is something wrong with the state regulatory process! After hitting walls for four years, residents from Buckingham decided to join with the Virginia Environmental Justice Collaborative, made up of 18 civil rights, environmental, community-based, and faith-based organizations from across the Commonwealth, to draft the following letter to federal, state, and local officials ([Appendix 3](#)). It highlighted the need for comprehensive and cumulative review sensitive to local culture and history. In particular, community members have repeatedly asked for Quantitative Risk Assessment (QRA) and Health Risk Assessment (HRA).

Impacted communities are constantly told they should do more or do things differently, while state agencies have many excuses explaining how they cannot help, do not have the resources, do not have the authority, do not have the time, do not have the specific expertise, etc. Due to budgetary constraints, state agencies are offloading environmental management duties on to citizens, non-governmental organizations, and volunteers such as myself without giving the respect, authority, or support necessary for us to be successful in protecting the environment. State agencies do not help provide enough technical support to regular citizens for them to defend their basic rights of clean air and water during permitting decisions.

DEQ and other state agencies needs greater parity in their technical support moving forward to achieve compliance with federal and state policy

The technical support provided to Buckingham was woefully inadequate. When residents asked DEQ technical questions at the one and only 'Question and Answer' session during the public comment period (and none had happened prior), they were frequently referred to the website without understanding of how unrealistic that is for an elderly resident who is not web literate and has very little experience navigating regulatory websites or understanding technical language. In our meeting site at the local church where we would work on writing comments, there is no web access due to the lack of internet service coverage in Buckingham. Residents could not look up information because of the state not making it available in a format appropriate to the local context. A printed copy should have been made available in the direct vicinity of the proposed compressor station as the dispersed geography of the county meant the one copy in the library was not enough.

There was insufficient access to technical experts from the state during four years of this permitting and particularly following the new 2018 permit application. Professionals willing to volunteer above and beyond other work commitments, such as myself, were the main technical support the community had. We were told yesterday in a meeting with nine DEQ representatives that this was the common route (i.e., offload technical support to the volunteer public, who often lacks the training necessary to work efficiently with the 275 different air regulations). This advice was given as we expressed how unjust the technical support process has been, with the permit-seeking firm gaining frequent access and the impacted community left without support. The professionals we spent hours identifying and we begging volunteer support from were often not able to find the time to help given the short window from the release to the public of the air permit application and the end of the public comment period.

In sum, in my professional opinion, based on many hours spent with local residents, state efforts were inadequate and the 30-day deadline was insensitive to local conditions and needs. The 30-day extension request from the community, backed by the ACEJ Resolution (Appendix 2), has been ignored. The lack of response to the 30-day extension paired with the lack of technical support seems to suggest state regulators either seek to limit community input or do not value local concerns. Even at the end of the 30-day period today, community members have more than 100 unanswered questions about the project (see Appendix 4).

ACP/Dominion Energy should notify local authorities prior to each venting event

Criteria pollutants are harmful at concentrations on time intervals that do not violate NAAQS.

Since residents have pre-existing conditions, such as respiratory disease, they will need to be more careful about exposure to venting episodes than the average healthy population upon which NAAQS were set. Unless DEQ can guarantee that they have done comprehensive and cumulative impacts from multiple exposures across time, they should treat each and all exposure in minority areas and low-income areas as dangerous. Until the state can have permitting and regulation match real air pollution exposures, which intersperse even when they come from different sources and different permits and which involve chemical reactions between different releases, the state needs to use the most basic element of environmental protection, that of the precautionary principle. Since environmental cleanup is much more expensive than prevention, then we should act on the side of caution. Many of the residents of Union Hill have respiratory illnesses already, suggesting existing exposures. If DEQ cannot prove that cumulative and comprehensive impacts of all combined exposures over time are safe for the elderly, young, and otherwise vulnerable populations of the proximate neighborhoods, the prudent decision would be to reject the permit. Similarly, unless DEQ can prove methane does not contribute to climate change, the prudent decision would be to reject methane releasing infrastructure like the ACP and the Union Hill Compressor Station.

If permitting is still considered, even though it is not prudent in this location, the next best practice would be to treat every blowdown like a high risk episode because of the vulnerability of the 99 households in the 1.1 mile radius. Best practice (like DEQ's technical BACT goals) would be to create a system of notification and a system of fence line monitoring.

Monitoring and compliance must occur for the full life of the project

The Union Hill Compressor Station air permit involves experimentation with relatively unproven technology, so additional evaluation and monitoring is necessary. I have heard with my own ears on multiple occasions DEQ air permitting staff state that Dominion Energy was not prepared with their permit applications and that they needed teaching to prepare this proposal. What guarantee does the community have moving forward that this teaching of the permit writers will continue as company practice in the Union Hill Compressor Station? If the company was not prepared to write an environmentally sound proposal without the support of DEQ, this is further evidence that monitoring and compliance needs to be stringent. Self-reporting should be monitored, reporting metrics must be regular and frequent enough to catch errors or gaps, and compliance monitoring and reporting must continue for the entire lifespan of the compressor station (i.e., through decommissioning of infrastructure and disposal of all materials and wastes from the site).

Under pressure from the community to address the lack of evacuation plan or details about safety risks, company representatives have suggested different possibilities for short-term oversight (i.e., only the first year). Currently they are suggesting they might cover first responders only for the first 7-10 years. Along with safety protections, monitoring and compliance are necessary for the full lifespan of the project. First, older and aging facilities have additional risks, so ending safeguards while the plant is still in operation would be negligent. Second, it is inappropriate for a powerful company to be negotiating with a relatively powerless community over the terms of emergency support, particularly since this negotiation is occurring with a few individual leaders in closed-door settings and private secret meetings. Without legal or technical support, leaders are being encouraged by Dominion Energy representative Basil Gooden to act quickly, followed with an assertion that they risk not getting anything if they do not act now. This is the type of pattern I document regularly in energy projects in developing countries with weak democracies. It is alarming to hear regular eyewitness accounts of such practices occurring in the Commonwealth of Virginia and in the United States of America.

Safety monitoring and compliance needs to include the full scope of the project and cannot fragment permitting of NAAQS or of methane or any other ecological, social, or cultural impacts

This compressor station air permitting is fragmented, which makes each decision only partially accurate, as also occurs with water permitting and other related aspects. Ecological damage and health risks in marginalized communities fall through the regulatory cracks in Virginia constantly. Similarly, state resources tend not to be directed toward preserving rural African American history sites without name recognition, such as the slave burial grounds in Union Hill. I have seen with my own eyes hundreds of graves that lack historical preservation. Until Virginian officials and agencies admit how much they are missing in their official and formal assessments, Union Hill Freedmen descendants will continue to experience oppression that never ended with the emaciation of their ancestors from slavery. Oppression continues with institutionalized and systemic racism.

Compliance monitoring requires the involvement of the community

Union Hill compressor station provides a watershed moment. DEQ air permit staff seems to want to increase community involvement moving forward. As someone who studies environmental behavior, I can confidently assert that both the literature and my years of experience clearly demonstrate hands-on and direct involvement in environmental management decisions is an excellent means for educating citizens and motivating on-going engagement and action. Informed and empowered citizen who are involved in their local communities will continue to advance DEQ's goal of environmental protection.

Broad community involvement in monitoring improves protection, but it is also necessary to institutionalize with transparency because of the direct actions by Dominion Energy in this community for the past four years. This week, through their paid representative, Basil Gooden, there are company efforts to limit involvement of local residents who allowed to give input on so-called economic development advisory group--shrinking from ten residents down to just six. This is in direct contradiction to DEQ and other state agency's calls for public input. Eyewitnesses tell me Gooden advises his selected community members to not ask for "too much" and suggests incentives like a hiking trail and a community center. In contrast, local residents have been inquiring about things like relocation or a paid settlement for those living within two miles.

Compliance best practice (on parity with attempts at BACT in the technical realm) would include 1) legal representation or at least legal counsel for impacted residents, and 2) monitoring and compliance guidance and coordination by Jerome Brooks (or another state agency Environmental Justice Coordinator). Given federal and state claims to advance environmental justice, it would be advisable to include one or more members of the National Environmental Justice Advisory Council (NEJAC) or state Advisory Council on Environmental Justice (ACEJ) in a support role.

If state environmental agencies are going to continue to be underfunded, there needs to be new forms of safeguards established. The privatization of safeguard roles gives more power to the private sector (i.e., the project owners and their tightly associated network of consultants). At the same time, reducing the oversight capacity of the state creates additional openings for environmental injustice. Cuts in DEQ's budget and reductions in staff are advancing discriminatory practices because they cannot add new air monitors (these historically have not been sited in communities of color) or new outreach, participation or education programs (these historically have not been sited in communities of color). At the same time, while there is recognition of to improve research and data collection relating to the health of and environment of minority populations and low-income populations, the state consistently argues they do not have the time or resources. Therefore, in this case, we see environmental racism not only in the siting of the compressor station creating disproportionate harm and risk for vulnerable and marginalized populations, but also in the unequal coverage of protective and preventative services and inequality in research and data collection.

The need for the ACP is in question

The need for the ACP is questioned by many economic and energy experts, particularly this past year. It seems likely this pipeline case, and the Union Hill Compressor Station as well, will be litigated for many years--with lawsuits challenging inadequate reviews before

permitting, racially motivated siting, and even the need for this new infrastructure given the number of other pipelines nearby. Lack of demonstrated need might advance climate change lawsuits, since this pipeline's methane unnecessarily harms youth and our planet's future.

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Appendix 1

To: Governor Northam
From: Advisory Council on Environmental Justice
Re: Environmental Justice Review of Virginia's Gas Infrastructure
Date: August 16, 2018

Dear Governor Northam:

The Advisory Council on Environmental Justice (ACEJ) was established to provide advice and recommendations to the Governor to improve equity in decision-making and improve public health in marginalized communities, among other goals listed in Executive Order 73 (EO 73) from October of 2017.¹ We appreciate the opportunity to communicate our first formal set of environmental justice concerns to the Executive Branch since our inauguration six months ago. Investigating and evaluating the proposed MVP and ACP pipeline and its' associated infrastructure has raised a myriad of issues (legal, scientific, technical, environmental, cultural, political, economic and social justice) that challenge our complete comprehension and integration. Consequently, we vigorously recommend the Governor use this situation as an opportunity to engage and encourage our state agencies to collaborate proactively to educate themselves and the public on the complex links and impacts of fossil fuel use on human health and quality of life. These links are many, both historic and current and the potential future impacts are likely to be felt most severely by our poor, minority and marginalized communities and community members. The people who have to live with the consequences of a decision should get to make that decision or at least have meaningful involvement in the decision-making process.

Historically the term environmental justice has meant ensuring that vulnerable populations including low income and/or minority populations are not disproportionately affected by environmental exposures that have known adverse effects. The Environmental Protection Agency defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The term has its roots in Civil Rights law, specifically Title VI of the 1964 Civil Rights Act, which prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. For states like Virginia with significant diversity, it is necessary to examine the use of state-level policy mechanisms, such as eminent domain, to ensure their use does not result in discriminatory acts against its citizens.

The Council's examination of evidence submitted from the Union Hill in Buckingham County community has revealed to us that this community, like many others within the state,

¹ The duties of the Governor's Advisory Council are to provide advice and recommendations to the Executive Branch on the following: Integrating environmental justice considerations throughout the Commonwealth's programs, regulations, policies, and procedures; 2. Improving the environment and public health in communities disproportionately burdened by environmental pollution and risks; 3. Ensuring transparent, authentic, and equitable engagement in decision-making, building capacity in disproportionately burdened communities, and promoting collaborative problem-solving for issues involving environmental justice; 4. Strengthening partnerships on environmental justice among governmental agencies, including Federal, State, Tribal, and local governments; 5. Enhancing research and assessment approaches related to environmental justice; 6. Receiving comments, concerns, and recommendations from individuals throughout the Commonwealth; and 7. Developing resources and strategies to provide and disseminate information to the public. See <https://www.naturalresources.virginia.gov/media/governorvirginiagov/secretary-of-natural-resources/pdf/eo-73-establishment-of-an-advisory-council-on-environmental-justice.pdf>.

has a significant population fitting the environmental justice criteria. Many of Buckingham's residents, because of their race or color, have been the historical recipients of unequal treatment, for which the above-listed Executive Order was signed to serve as a remedy. Therefore, we encourage that these recommendations (and others that may be directed to the Governor from this Commission in the future) be viewed through this lens so that the state of Virginia can ensure policies, programs and practices will not have unintended consequences that harm citizens who have a history of disenfranchisement. Additionally, the Council recognizes the lack of bottom up participation and consultation among Virginia's Indigenous Peoples regarding "Free, Prior, and Informed Consent" (FPIC), as defined in the United Nation's Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007.²

In order to move Virginia forward ensuring its place as a leader in environmental justice, addressing the global climate crisis, and building a 21st Century clean energy economy we recommend that the governor direct state permitting agencies to prioritize renewable energy solutions, and quickly transition away from fossil fuels. The Governor's Advisory Council on Environmental Justice (ACEJ) recommends that the 401 Clean Water Act certifications for the Atlantic Coast Pipeline (ACP) and the Mountain Valley Pipeline (MVP) be rescinded immediately. Likewise ACEJ recommends that the Governor direct DEQ to suspend the permitting decision for the air permit for the Buckingham compressor station pending further review of the station's impacts on the health and the lives of those living in close proximity. We also recommend that a review of permitting policies and procedures take place and that the governor direct the Air Pollution Control Board, DEQ, and DMME to stay all further permits for ACP and MVP to ensure that predominately poor, indigenous, brown and/or black communities do not bear an unequal burden of environmental pollutants and life-altering disruptions. These actions would ensure that environmental justice has meaningful influence in all current and future energy projects.

Our concerns fall into seven areas:

- 1) Residents of Buckingham have provided comment to the Council that raise questions about the need for the pipeline given decreasing domestic demand
- 2) The Council recommends that if there is a change in demand that renewables be prioritized over natural gas.
- 3) Residents have provided comment to the Council about the potential for civil rights violations.
- 4) Union Hill Compressor Station in Buckingham County (ACP CS-2) may have a disproportionate impact on this predominately African American community and could be perceived as exhibiting racism in siting, zoning, and permitting decisions and public health risk;
- 5) Federal and state review of assessments of risk for cultural and historical resources as a result of the Mountain Valley Pipeline (MVP) and the Atlantic Coast Pipeline (ACP) are incomplete;
- 6) The Council has concluded that federal and state reviews of water quality risks from the MVP and the ACP have not adequately assessed potential impacts for vulnerable populations; and

² US support of UNDRIP was announced in 2010.
http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

- 7) Methane from gas infrastructure has the potential to contribute significantly to climate change at a time when Virginian's climate impacts are increasing clear and contribute to vulnerability and inequality.

TOPIC ONE: CONCERNS OVER CIVIL AND HUMAN RIGHTS VIOLATIONS

Energy development is possible without infringement of civil rights and human rights.³ It is our hope that our current energy systems will take into account vulnerable and marginalized communities who may be impacted by developments and that this will be influence when production, processing, and transportation projects are undertaken. Specific civil rights concerns for Union Hill (Buckingham County), in Native American territories, and in rural counties along the pipeline path, are discussed in detail in subsequent sections below.

A controversial aspect of pipeline construction in Virginia involves interpretation of public good for property takings under eminent domain. There is considerable activity in local, state and federal courts and examination of current policies appears necessary and should involve public input.

In counties with pipeline surveying and pre-construction, many property owners assert their property rights are violated and they are mistreated during forced entry. There are a growing evidence of stressful and sometimes traumatic encounters in recorded videos, photographs, and other documentation. There is also a lack of certainty about landowner rights, since eminent domain taking is negatively viewed by most landowners. Stress is amplified by concerns over property value and the potential for a negative impact on public health. Homeowners who may feel that their quality of life has been negatively impacted may be unable to find a buyer, if they wish to leave.

Recommendations:

- 1) We recommend that the Governor's office examine the role of state agencies to ensure that policies with the potential to negatively impact vulnerable communities take the health of those residents into consideration as policies are considered for implementation.

TOPIC TWO: PUBLIC HEALTH CONCERNS WITH COMPRESSOR STATIONS AND RACISM IN THE SITING DECISION FOR ACP CS-2 IN UNION HILL

ACP construction requires three compressor stations: one is located within Virginia and the other two are located near to the state's border. MVP construction has the potential to contribute additional emissions to the existing Transco Pipeline Zone 5 Compressor Station 165 in Pittsylvania County, Virginia.

³ Sovacool, B.K. and Dworkin, M.H. 2015. Energy justice: Conceptual insights and practical applications. *Applied Energy*. 142: 435-444.

The Council would like to highlight the potential for disproportionate impact for this community of Buckingham. For federal permitting, ACP used countywide statistics of 29.1 people per mile. We are informed by the community that nearly all the 99 households living within two miles of CS-2 were not taken into account within the FERC application. The majority (85%) of these households are African American, which is also much higher than the county average reported in the federal application. We believe these citizen concerns are warranted. Table 1 demonstrates annual releases from the proposed >53,000 horsepower compressor station, which would receive gas not only from the ACP, but also from the William's Transcontinental (Transco) Pipeline and its feeder lines. These emission levels are based on information available in the 2015 permit application and 2017 supplement. At the ACEJ meeting on May 30, 2018, we were informed of a new air permit application for ACP CS-2 for which the details were recently made available at:

<https://www.deq.virginia.gov/Programs/Air/BuckinghamCompressorStationAirPermit.aspx> a.

Impacted populations will need sufficient time to consider technical applications. During the 30-day comment period, if abundant public health concerns about emissions arise, the state should consider a delay in providing permits until an independent review can take places.

Table 1: Proposed Annual Releases from CS-2

| Pollutant | Annual Air Releases Requested in the 2018 Air Permit Application | Public Health Implications of Pollutants (https://www.epa.gov/criteria-air-pollutants) |
|--|---|--|
| Nitrogen Oxides (NO_x) | 43.4 tons | Inflammation of the airways, decreased lung function, increased risk of respiratory conditions, and increased response to allergens. |
| Carbon monoxide (CO) | 51.6 tons | Vital organs, such as the brain, nervous tissues and the heart, do not receive enough oxygen to work properly; people have trouble concentrating, lose coordination, and feel tired. |
| Volatile Organic Compounds (VOCs) | 7.69 tons | VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. |
| Particulate Matter (PM) | 43.2 tons | Exposure to PM can lead to premature mortality, aggravation of respiratory and cardiovascular disease, decreased lung function growth, exacerbation of allergic symptoms, etc. |
| Sulphur Dioxide (SO_x) | 8.30 tons | Exposure to SO ₂ can harm the human respiratory system and make breathing difficult; SO ₂ contributes to acid rain. |
| Carbon dioxide equivalent (CO₂e) | 295,686 tons | Contribute to climate change with related health impacts, such as increases in distribution and/or intensity of mosquitoes and ticks, allergens, natural disasters, etc. |
| Methane | 70.9 tons | Methane is a potent greenhouse gas; methane gas exposure can cause headaches, dizziness, weakness, nausea, vomiting, and loss of coordination. |
| Hazardous Air Pollutants (HAPs) | 5.3 tons | More than 30 HAPs (e.g., arsenic, benzene, toluene, xylene, etc.) would be released from the proposed compressor station. The levels of formaldehyde and hexane are significant. Formaldehyde: irritation of the skin, eyes, nose, and throat. High levels of exposure may cause some types of cancers. Hexane: dermatitis |

| | |
|--|---|
| | and irritation of the eyes and throat occur with acute and ongoing exposure |
|--|---|

State decisions for infrastructure with significant social and ecological risks, like compressor stations, should not be made hastily, particularly in places like Union Hill where the everyday experiences of residents are shaped by historical experience of racial injustice for a population whose ancestry is rooted in slavery.

During public testimony provided by Buckingham residents, the potential benefits to landowners of the compressor station site when contrasted with potential property value losses for the Freeman Community of Union Hill presents a stark contrast. The slave cemetery on the former Variety Shade Plantation lacks official protection as a historical site. Yet residents regard it as such and received formal recognition in 2016 by Preservation Virginia, a nonprofit who has specialized in Virginian historical preservation for more than a century. In 2017, Union Hill initiated a process for state recognition by filing paperwork with the Department of Historic Resources.

In rural counties in the path of the ACP and MVP pipelines, there is widespread concern that residents shoulder disproportionate risks because of their rural residency. For example, MVP selected to not add the chemical odorant (Mercaptan) as an emergency alert to nearby citizens if a leak occurs, a common precaution in urban areas. Rural populations may not benefit from the pipeline gas, so the absence of protections similar to those provided to urban residents seems unfair given the lack of benefits to balance the potential harms.

Specific examples below go further to suggest discrimination against rural populations based on low population density. For example, the planned width of the pipeline walls is thinner than what would be used if the pipes were located in urban areas. The number of cut-off valves is reduced to cut construction costs, sending a message that rural lives value less.

Federal standards allow emergency responsibility to be placed with the Buckingham First Responders. Since this area is zoned for agricultural and residential use, the compressor required a Special Use Permit. Buckingham County First Responders are inadequately prepared for industrial explosions, leaks, and fires. As proposed, a brief training financed by the ACP with an annual refresher may not adequately assure safety.

Alarmingly, monitoring of CS-2 will occur remotely from West Virginia with on-site supervision only during week days for the first year. Control of the station with highly pressurized and toxic materials will occur by Wi-Fi tower transmission, in spite of the potential for disruption by storms and other hazards. Less risky fiber-optic cables are more reliable. With these cost-savings measures that do not employ existing technology, it seems inaccurate to define the CS-2 as 'using Best Available Technology' as suggested by the owner and operator during permit applications.

Recommendations:

- 1) We recommend that the Governor encourage state agencies complete comprehensive social, ecological, and comprehensive health impact assessment for CS-2 based on local

demographic context.⁴ We also recommend that testing occur to assure CS-2 noise levels no higher than 55 decibels (daytime) and 40 decibels (night) and explore protocols to limit the number of blowdowns of CS-2 in addition even further (currently ~10 per year) in addition to adding silencers.

- 2) DEQ's comprehensive Air Dispersion Models for the three ACP compressor stations and for emission increases to Pittsylvania Compressor station due to the MVP should include acute emissions in addition to annual averages. Annual averages can mask short term exposures that may be high enough to have an adverse impact on human health. We recommend that emission information be shared with the impacted community in a public forum with opportunities to ask questions.
- 3) We recommend that the Governor encourage state agencies to work with ACP to complete a Quantitative Risk Assessment (QRA) for CS-2 to protect the health and well-being of local populations and to examine emergency response plans for deficiencies.
- 4) We recommend that the Virginia Department of Health train a current staff member or hire an existing expert to build capacity and knowledge within the state about the potential health impacts of gas infrastructure.

TOPIC THREE: MARGINALIZED GROUPS AND CULTURAL RESOURCES

Federal cultural resource assessments for the ACP and the MVP have not adequately incorporated African American and Native American histories. There are important historical sites along the routes of the pipelines that have not received protected or landmark status.

Native American tribes in the state of Virginia are increasingly recognized on state and federal levels. On January 29, 2018, there was long overdue federal recognition of the Chickahominy, Eastern Chickahominy, Upper Mattaponi, Rappahannock, Nansemond, and Monacan Nations. ACP and MVP consultation with tribes was woefully inadequate during FERC permitting, particularly since federal recognition occurred after FERC approval. State agencies have an opportunity to fill this regulatory gap before issuing permits. Tribal leaders at a federal level have communicated a preference to consult with government intermediaries rather than negotiate directly with energy companies.⁵ Tribes may not want to share locations of cultural resources, such as burial grounds and spiritual sites.

The MVP cultural resource plan was incomplete, and the risks are high. In Virginia, the MVP identified 138 pre-historic and historic sites within a mile and 97 within 0.5 mile. There are 8 sites of an unknown time period, suggesting these have not been adequately studied. The 97 sites within a half mile of the project had not been evaluated for their potential to be eligible to the National Registry of Historic Places (NRHP) before MVP made their cultural resource plan in 2015. MVP noted there were "cemeteries, many not mapped, related to Native Americans, enslaved African Americans, and Euroamericans (including possible Civil War-era burials) that may be in the path of the Project."⁶

⁴ For example, Dr. Lakshmi Fjord, an Anthropologist at the University of Virginia, has collected household data in the 2-mile blast radius of CS-2.

⁵ Lovells, H. 2017. The Federal Energy Regulatory Commission Issues Guidelines for Reporting on Cultural Resources Investigations for Natural Gas Projects: A Summary of the Tribal Engagement Provisions <https://www.jdsupra.com/legalnews/the-federal-energy-regulatory-82749/>.

⁶ Mountain Valley Pipeline. 2015. Resource Report 4: Cultural Resources.

The ACP will uncover Native American settlements or artifacts during construction across hundreds of miles on the lands and along rivers of Powhatan, Monacan, Meherrin, Tuscarora, Nottoway, Cheroenhaka, Nansemond, Lumbee and other nations.⁷ ACP's scattershot dispersal technique to share project information covered mostly non-impacted groups in states other than Virginia. ACP received input from a small number of groups, perhaps due to inadequate consultation techniques relying largely on two form letters and a singular multi-tribe information sessional.

The ACP Pipeline and Compressor Station Two (CS-2) are in the immediate vicinity of slave cemeteries, historical school and churches at the Freedman settlement in Union Hill in Buckingham County. The ACP has not undertaken required Section 106, Historic Preservation Act cultural resource reports for the former Slave/Freedmen community of Union Hill. The ACP does not recognize Union Hill's historical importance and current Freedmen descendant population.

The ACP intersects 140 acres of the Great Dismal Swamp (GDS) (National Wildlife Refuge). ACP is a site of ecological diversity and an important historical area. In the early 1600s, Native Americans fleeing the colonial frontier took refuge in what would become GDS. Details about Native American sites in this area remain incomplete. GDS was a survival oasis, a "thriving refuge" for escaped slaves.⁸ In 2003, the Underground Railroad Network to Freedom Program established a refuge to commemorate the importance of the Great Dismal Swamp as an escape route and place of safety for former slaves. There are active archeological sites in portions of the GDS. Thousands of artifacts have been uncovered, but many areas remain without analysis.⁹

Recommendations:

- 1) With hundreds of archeological sites located with a mile of the ACP and the MVP without historical designation, we recommend that the Governor assess the potential impacts of the ACP and MVP on areas of cultural significance to Native Americans and African Americans. to protect and categorize important cultural sites.
- 2) We recommend that the Governor insure that private and public sector entities improve channels of communication with tribal councils while supporting self-determination. In particular, infrastructure projects like the ACP and MVP should consult tribes about impacts to their land and people. Since tribes were awaiting decision on their federal recognition application, they may not have felt free to communicate concerns about proposed pipeline projects. The global standard established to respect indigenous rights is Free, Prior and Informed Consent. These pipeline projects are currently in pre-construction without FPIC, even from federally recognized tribes.

TOPIC FOUR: STATE REVIEW UNDER THE CLEAN WATER ACT

⁷ Native Land. Our home on native land. <https://native-land.ca/>.

⁸ Grant, R. 2016. Deep in the swamps, Archeologists are finding how fugitive slaves kept their freedom. *Smithsonian Magazine*. <https://www.smithsonianmag.com/history/deep-swamps-archaeologists-fugitive-slaves-kept-freedom-180960122/>.

⁹ Hausman, S. 2014. Fleeing to Dismal Swamp, slaves and outcasts found freedom. *National Public Radio*. <https://www.npr.org/2014/12/28/373519521/fleeing-to-dismal-swamp-slaves-and-outcasts-found-freedom>

ACEJ recognizes clean water is part of the public trust. UN Resolution 64/292, passed in 2010, acknowledged that clean drinking water is essential to the realization of all human rights. Several United States acts, including the Clean Water Act and the Safe Drinking Water Act, protect access of American citizens to clean drinking water. Disruption or contamination of water supply is an environmental justice issue because low-income populations can least afford to purchase water or filtration systems and cannot pay higher taxes for improved infrastructure.

To assure water quality, ACEJ recommends that the state of Virginia review federally permitted projects like the ACP and the MVP to certify that they will comply with state water standards. Pipeline construction will involve crossing 1,556 waterbodies and impact large areas of the state. Based on the best available information, the ACP would cross near intakes of water assessment areas of the (1) City of Staunton-Middle River, (2) City of Norfolk-Western Branch Reservoir, (3) City of Norfolk-Lake Prince, and (4) City of Emporia-Meherrin River.¹⁰ The MVP would cross two source water assessment areas: (1) Western Virginia Water Authority-Spring Hollow, and (2) Town of Rocky Mount-Blackwater River.

Individualized analysis of current conditions and expected impacts is important at every crossing, but especially in areas where water quality is already impaired, in areas of seismic activity or geologic instability, and in zones that are sources of drinking water. In rural areas like Bath, Buckingham, and Nelson Counties, where residents rely on wells, streams, rivers, and reservoirs, citizens are worried and alarmed about potential groundwater pollution from pipeline construction and use.

Independent Geographic Information System (GIS) analysis has identified that the proposed pathway is in proximity to stream crossing and water intakes;¹¹ therefore we recommend state agencies conduct environmental justice review of impacts on water bodies to assure risk to water is carefully assessed. The ACP would cross the Blackwater River approximately 4.5 miles from the City of Franklin (Southampton County). Of the 33 HDD water crossings within two miles of Franklin, most lie proximate to neighborhoods with a majority of people of color.¹²

The legal and regulatory record below suggests the potential for significant ecological harm and the need for additional state review:

- MVP: The DEQ has taken enforcement action against MVP since the start of pre-construction.¹³ Federal regulators halted MVP construction in August of 2018 due to

¹⁰ Hansen, et al. 2018. Threats to Water Quality from the Mountain Valley Pipeline and Atlantic Coast Pipeline Water Crossings in Virginia. https://www.nrdc.org/sites/default/files/threats-to-water-quality-from-mountain-valley-pipeline-and-atlantic-coast-pipeline-water-crossings-in-virginia_2018-02-26.pdf.

¹¹ Detailed route maps are available at the [Pipeline Compliance Surveillance Initiative](https://dpmc-gis.maps.arcgis.com/apps/webappviewer/index.html?id=bad99995a7674146903a3aacb83bd879) (CSI). See in particular <https://dpmc-gis.maps.arcgis.com/apps/webappviewer/index.html?id=bad99995a7674146903a3aacb83bd879>; Hansen, et al. 2018. Threats to Water Quality from the Mountain Valley Pipeline and Atlantic Coast Pipeline Water Crossings in Virginia. https://www.nrdc.org/sites/default/files/threats-to-water-quality-from-mountain-valley-pipeline-and-atlantic-coast-pipeline-water-crossings-in-virginia_2018-02-26.pdf.

¹² Ibid.

¹³ DEQ. Regulatory activities related to the Atlantic Coast and Mountain Valley pipelines in Virginia. https://www.deq.virginia.gov/lists/?action=show_list&id=38&page=1; Lopez, T. 2018. DEQ, MVP broke the

repeated incidents of erosion violations.¹⁴ In August of 2018, the Fourth Circuit Courts vacated the Forest Service and Bureau of Land Management permits for the MVP due to evidence of insufficient environmental review before approval.¹⁵

- ACP: Along with dozens of local organizations, the Southern Environmental Law Center submitted a legal case in 2017 requesting rehearing of FERC review given limitations in review prior to approval. While this court decision is still pending, Senator Kaine has repeatedly requested a new FERC review.¹⁶ ACP has since been cited for erosion violation in West Virginia¹⁷ and violations of tree felling in Virginia.¹⁸ ACP pre-construction was halted in May of 2018 to protect endangered species when protections were found insufficient.¹⁹ In August of 2018, the Fourth Circuit Court vacated National Park Service permit for the ACP due to the permit's fundamental contradiction with the NPS mission.²⁰

Recommendations:

- 1) We recommend that Governor communicate with the State Water Board (SWB) and the Department of Environmental Quality (DEQ) about state review power under Section 401 of the Clean Water Act to assure necessary site-specific assessment.
- 2) We recommend that the Governor embrace site-based stream-by-stream assessment to protect Virginia citizen's right to clean water and ensure safeguards are in place for low-income and vulnerable populations.
- 3) We recommend that the Governor delay MVP pipeline pre-construction and construction until the potential impacts can be more thoroughly reviewed with disproportionate impacts taken into consideration. We also recommend that the state exercise state

law, has inadequate erosion controls. WSLs 10 News. <https://www.wsls.com/news/virginia/deq-mvp-broke-the-law-has-inadequate-erosion-controls>.

¹⁴ Hammack, L. 2018. Federal agency order stop on the entire Mountain Valley Pipeline. *The Richmond Times Dispatch*. https://www.richmond.com/news/virginia/updated-federal-agency-orders-work-to-stop-on-the-entire/article_47640162-9399-5ca1-81b5-4d38be2417a4.html.

¹⁵ Weber, M. 2018. US Court vacates US Forest Service and BLM permits for Mountain Valley Pipeline. *S&P Global Platts*. <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/072718-us-court-vacates-us-forest-service-blm-permits-for-mountain-valley-pipeline>.

¹⁶ Kaine, T. 2018. Kaine calls for FERC rehearing on Mountain Valley and Atlantic Coast Pipelines. <https://www.kaine.senate.gov/press-releases/kaine-calls-for-ferc-rehearing-on-mountain-valley-and-atlantic-coast-pipelines>.

¹⁷ Miskin, K. 2018. WV DEP pipeline developers failed to control erosion, fall the water quality rules. *WV Gazette Mail*. https://www.wvgazettemail.com/news/wvdep-pipeline-developers-failed-to-control-erosion-follow-water-quality/article_70da3076-0ec4-531f-b4bd-7d3f2b2c1fb0.html.

¹⁸ Zullo, R. 2018. Atlantic Coast Pipeline gets violation notice from state over tree felling. *The Richmond Times Dispatch*. https://www.richmond.com/news/virginia/atlantic-coast-pipeline-gets-violation-notice-from-state-over-tree/article_cde8db97-2e9a-58fa-ad09-93a1ff643ed2.html.

¹⁹ Zullo, R. 2018. Federal appeals court nullifies key permit of the Atlantic Coast Pipeline. *The Richmond Times Dispatch*. https://www.richmond.com/news/virginia/federal-appeals-court-nullifies-key-permit-for-atlantic-coast-pipeline/article_c3da09e8-df8d-56d5-a9dd-3499737b1a14.html

²⁰ Lavoie, D. 2018. Appeals Court Tosses Key Permits for Atlantic Coast Pipeline. *The Washington Post*. https://www.washingtonpost.com/national/energy-environment/appeals-court-tosses-key-permits-for-atlantic-coast-pipeline/2018/08/06/63064dfa-99ca-11e8-a8d8-9b4c13286d6b_story.html?noredirect=on&utm_term=.2f28ca0c4875

authority under SB698 and SB699 to delay construction until this review has taken place.²¹

TOPIC FIVE: METHANE GAS, CLIMATE CHANGE, SEA LEVEL RISE

Methane (CH₄), a potent greenhouse gas, leaks into the earth's atmosphere through the production of gas pipelines across the US.²² Gas systems contribute to climate change more than coal and methane emissions are on the rise. A recent NASA study concluded that fossil fuel development is the source of approximately 68% of the recent rise in methane levels in the atmosphere.²³ The potential cumulative impacts of new gas infrastructure are significant.²⁴

Virginians are already experiencing climate change impacts, such as heat waves, seasonal drought, sea level rise, and intensification of storms. Climate disruption often exacerbates inequalities, creates and reinforces environmental injustice, and causes the greatest harm to poor and vulnerable populations.²⁵ Climate justice advocates assert harm from climate change disproportionately affects communities of color, low-income populations, and the elderly and children. Sea level rise and recurrent flooding are contributing to missed school and work in low-lying areas of the eastern shore and coastal zones (i.e., in Norfolk).²⁶ Hampton Road owners have lost homes when they can no longer obtain or afford flood insurance.²⁷ The perception that low income residential areas and communities of color may not receive equal attention when evacuation and storm recovery plans are made, influences the recommendations made below. Due to recurrent flooding, a percentage of the low-income populations from Tidewater Garden and other public housing projects in Norfolk are to be relocated to new housing through a voucher system by 2020.²⁸ In addition to demonstrating inequality in housing access, climate impacts draw attention to Virginia's unequal medical coverage and to existing gaps in health care access. Climate change can result in increases in pollen and earlier rises in pollen contributing to allergies, increase in vector borne diseases from increases in the populations of ticks and mosquitos, higher potential for heat stroke,

²¹ <http://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+SB698>; <http://lis.virginia.gov/cgi-bin/legp604.exe?181+cab+SC10205SB0699+RCSB3>.

²² Brandt, A.F. et al. 2014. Methane Leaks from North American Natural Gas Systems. *Science*. <http://science.sciencemag.org/content/343/6172/733>

²³ NASA (National Aeronautics and Space Administration). 2018. NASA-led study solves methane puzzle. <https://www.nasa.gov/feature/jpl/nasa-led-study-solves-a-methane-puzzle>.

²⁴ Mayfield, D. 2017. Would the Atlantic Coast Pipeline increase the threat of sea level rise in Hampton Roads? *The Virginian Pilot*. https://pilotonline.com/news/local/environment/article_a949fc72-c07b-5d08-a329-463b1eee32f1.html

²⁵ *United Nations News*. 2016. Inequalities Exacerbate Climate Impacts on Poor and Vulnerable Populations. <https://news.un.org/en/story/2016/10/541743-inequalities-exacerbate-climate-impacts-on-poor-vulnerable-populations-new-un>; Leichenko, R. and O'Brien, K. 2008. *Environmental change and globalization: Double exposures*. Oxford University Press.

²⁶ Kusnetz, N. 2018. Norfolk wants to remake itself as sea level rises, but who will be left behind? *Inside Climate News*. <https://insideclimatenews.org/news/15052018/norfolk-virginia-navy-sea-level-rise-flooding-urban-planning-poverty-coastal-resilience>.

²⁷ Jarvis, B. 2017. When rising seas transform risk into certainty. *The New York Times*. <https://www.nytimes.com/2017/04/18/magazine/when-rising-seas-transform-risk-into-certainty.html>.

²⁸ The New Journal and Guide Staff. 2018. Norfolk's urban renewal program gets underway. *The New Journal and Guide*. <http://thenewjournalandguide.com/norfolks-urban-renewal-project-gets-underway/>.

increase in ground level ozone, all of which combine to intensify health conditions such as asthma, other respiratory diseases, and more.²⁹

An important component of environmental justice is mitigating and preventing releases of methane and other greenhouse gases. Reducing methane emissions is especially important for curbing near-term warming. Because methane only lasts for a decade or so in the atmosphere, reducing emissions can have a near-immediate impact on slowing the rate of warming, which is critical for reducing the impacts that we are already seeing, such as sea level rise and worsened extreme weather events.³⁰

Recommendations:

- 1) We recommend that the Governor direct state agencies model greenhouse gas contributions, including methane, of the proposed ACP and MVP comprehensively so the decision-makers and the public have a more accurate understanding of climate impacts.
- 2) We recommend that the Governor ensure that the state includes GHGs in state assessments and should consider rejecting permits for the ACP and the MVP if climate impacts surpasses other energy options. The New York Governor and state resource agencies canceled proposed gas infrastructure using climate justifications, creating a precedent for state level action.³¹
- 3) We recommend that the Governor rigorously work with governmental and independent agencies to revisit initial economic and other calculations related to gas pipelines. Market shifts suggest there may not be a need for additional capacity given the decreasing domestic demand. This will ensure that low income and minority populations are not disproportionately impacted by the proposal and to assess the potential for comprehensive ecological impacts thoroughly.

²⁹ Natural Resources Defense Council. Climate change and health in Virginia. <https://assets.nrdc.org/sites/default/files/climate-change-health-impacts-virginia-ib.pdf>.

³⁰ Ocoko, I. 2018. New Science Suggests Methane Packs More Warming Power Than Previously Thought. *Environmental Defense Fund*. <http://blogs.edf.org/energyexchange/2018/02/07/new-science-suggests-methane-packs-more-warming-power-than-previously-thought/>; Howarth, R.W. 2015. Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy. *Energy and Emission Control Technologies*. 3: 45-54.

³¹ Kuznetz, N. 2017. Another pipeline blocked for failure to consider climate emissions. *Inside Climate News*. <https://insideclimatenews.org/news/07092017/new-york-pipeline-permit-rejected-natural-gas-valley-lateral-ferc-climate-change>.

CONCLUSION: OUR PROPOSAL

Virginia's Emergency Task Force on Environmental Justice in Gas Infrastructure

ACEJ recommends an **Emergency Task Force on Environmental Justice in Gas Infrastructure** be convened to assess evidence of disproportionate impacts for people of color and for low-income populations due to gas infrastructure expansion. ACEJ recommends that the Governor direct DEQ to suspend the permitting decision for the air permit for the Buckingham compressor station pending further review of the station's impacts on the health and the quality of life of those living in close proximity. We also recommend that a review of permitting policies and procedures take place and that the governor direct the Air Pollution Control Board, DEQ, and DMME to stay all further permits for ACP and MVP to ensure that predominately poor, indigenous, brown and/or black communities do not bear an unequal burden of environmental pollutants and life-altering disruptions. These actions would ensure that environmental justice has meaningful influence in all current and future energy projects.

Proposed Membership:

- State of Virginia: appropriate agencies (i.e., DEQ, VDH, DSS, DMAS, SHPO, etc.)
- Dominion Energy: Environmental Justice Officer or other representative, company archeologist
- Advisory Council on Environmental Justice (ACEJ) representatives
- Impacted urban and rural populations, including members of Native American nations and Freedman communities
- Civil rights attorneys
- Member of State Control Water Board (selected by SWCB)
- Member of State Air Pollution Control Board (selected by PCB)
- Academia: anthropologists, archeologists, historians, geographers

To: Governor Northam
From: Advisory Council on Environmental Justice
Re: Public Comment and Resolution regarding Union Hill Compressor air permitting process and ACP Pipeline.
Date: September 3, 2018

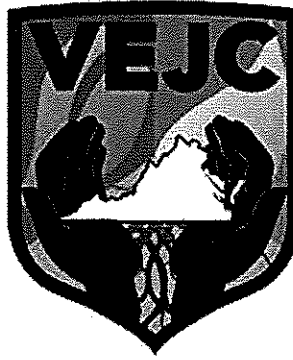
Dear Governor Northam:

At the recent meeting of the Advisory Council on Environmental Justice held in Richmond, VA on August 28th, 2018, a resolution was passed in support of a request made during the public comment period. The Virginia residents asked for the following:

1. Extend the public comment period for the Union Hill Compressor station air permit to 60 days.

In addition, there were concerns expressed which are consistent with comments reflected in our letter to you dated August 16th which highlight the need for a more thorough assessment of risks and potential health impacts associated with the Compressor station and ACP pipelines. We respectfully make this request.

The following quote from our August 16th letter to you describes the underlying issues. "Many of Buckingham's residents, because of their race or color, have been the historical recipients of unequal treatment, for which the above-listed Executive Order was signed to serve as a remedy. Therefore, we encourage that these recommendations (and others that may be directed to the Governor from this Commission in the future) be viewed through this lens so that the state of Virginia can ensure policies, programs and practices will not have unintended consequences that harm citizens who have a history of disenfranchisement".



VIRGINIA ENVIRONMENTAL JUSTICE COLLABORATIVE

220 Hull Street, Richmond, VA 23224

www.vaejc.com

804.370.1143

September 10, 2018

Dear Governor Northam, Senators Warner and Kaine, Virginia State Legislators
cc: Federal Energy Regulatory Commissioners, Dominion Resources, Meryem Karad, Trieste Longwood (DEQ)

We are alarmed civil rights, community-based, environmental, and faith-based organizations who make up the Virginia Environmental Justice Collaborative (VEJC), along with institutional partners, civil rights advocates, consumers, impacted residents, and frontline marginalized communities throughout the Commonwealth. Environmental justice is falling through the cracks because each federal or state agency limits its permitting and regulatory authority to fragmented fields of expertise (air *or* water; air *not* safety or noise pollution).

This approach excludes comprehensive study of the cumulative risks and hazards faced by impacted residents, and supports denial of responsibility for environmental justice implementation. Thus, EJ communities remain targets for new burdens of toxic infrastructure in Virginia. Travesties in two of these communities have prompted this letter and our strong recommendations for immediate actions by you.

The Environmental Protection Agency (EPA) defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. NEPA guidelines detail how to implement environmental justice reviews, including:¹

¹ https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf

- ❖ Identification and assessment of environmental justice communities using multiple methods, including inclusive local sources to ensure accuracy;
- ❖ Early, meaningful, inclusive, participatory engagement of impacted communities;
- ❖ Identification and protection of African American, Native American, and other cultural and historical resources;
- ❖ Comprehensive analysis of the cumulative impacts of air, soil, and water exposures and their combined risks to human health over time, with particular emphasis on vulnerable populations -- elderly, pediatric, minority, and low-income residents;
- ❖ Assessment of pre-existing medical conditions of fence-line neighborhoods;
- ❖ Equitable access to alternative energy and green infrastructure to reduce toxic burdens.

Virginia Energy Policy (Code of Virginia § 67-101) energy objectives include “[developing energy resources and facilities in a manner that does not impose a disproportionate adverse impact on economically disadvantaged or minority communities.”² In 2017, Governor Terry McAuliffe created the Governor’s Advisory Council on Environmental Justice (ACEJ) under Executive Order #73, to provide “a consistent, action-oriented approach to incorporating environmental justice into decision-making.” Governor Northam’s Executive Order #6 includes: “Engaging the regulated community, local governments, and other interested stakeholders in the development of new protocols”; and, “assessing gaps in DEQ resources or authorities necessary to address challenges identified under this review.”

These commitments by Virginia to resolve the environmental and social injustices identified below demand that energy generation choices give highest priority to the health and safety of the public through equitable access to community-oriented renewable energy.

Buckingham Environmental Justice Review

Union Hill is not suitable for a gas compressor station because of geometric comprehensive and cumulative impacts to air, soil, and 100% of drinking water sources with:

- ACP Intersection with existing 4-pipeline William’s Transcontinental (Transco) at the Union Hill Compressor Station in a large wetlands close to water wells, homes, churches;
- A proposed 54,000+ horsepower compressor station is sited for a majority African American community over 500% more populated than reported by Atlantic Coast Pipeline (ACP) and the Federal Energy Regulatory Commission (FERC),
- ACP’s horizontal directional drilling at a seasonal flooding, seismic faultline site under the James River risks entire watershed drinking water;
- ❖ The African American Freedman community of Union Hill lacks historical preservation of historic black schools, churches, slave burials, and gathering places;

² <https://law.lis.virginia.gov/vacode/title67/chapter1/section67-101/>

- ❖ According to state data and household studies, pre-existing health conditions in proximate households include asthma, chronic bronchitis and other lung disorders, heart disease, diabetes, cancers, and autoimmune conditions;
- ❖ Residents of Union Hill are disproportionately elderly and very young; in all public comment processes impacted residents give strong dissent with specific data for why not to allow a large compressor station in a minority, Freedmen community;
- ❖ Emergency first response infrastructure in Buckingham is inadequate for industrial scale leaks, fires or explosions.³

We request a 30-day extension of the 30-day comment period for the draft air permit for Union Hill Compressor Station because:

- ❖ Community members received access to large documents only weeks before the comment period is set to end; unlike ACP's developer, they did not receive DEQ expert technical support to frame the technological and emissions issues DEQ staff said are the only issues they will read and summarize in public comments;
- ❖ Yet, the lack of organization, lack of tables, and overall impenetrable language in hundreds of pages of the air permit and air modeling require the same level of support Dominion received from DEQ to comprehend;
- ❖ The lack of access to computers and internet by the Union Hill community, coupled with lack of access to rural wifi or broadband infrastructure, compounds inequity.

Chesapeake Environmental Justice Review

Likewise, the Chesapeake and Norfolk lateral pipeline route and process are not appropriate:

- ❖ The siting of a new lateral gas pipeline route in Chesapeake and Norfolk demonstrates targeted impact to majority African American neighborhoods. Many residents purchased homes in these neighborhoods in the late 1960's - early 1970's when other neighborhoods were redlined and they were prohibited from buying elsewhere. Now, those same residents are seniors and unable to move without losing their lifelong investment while others who are able are selling their homes which could still reduce home values;
- ❖ A coalition of Chesapeake subdivisions commissioned a professional environmental study at their own expense. The report determined that should there be an explosion, there are hundreds of homes within potential blast zone.
- ❖ New pipeline is being constructed in a neighborhood that is already in nonattainment for air and water standards⁴ with proximity to superfund sites tied to military installations⁵

³ Based on household surveys, Union Hill has a suburban population density. It is cited incorrectly in project documents as rural.

⁴ https://pilotonline.com/news/government/local/article_33929ed5-ed53-5d7e-8623-35e70d26c6bb.html

and to Chesapeake Energy Center's unlined storage ponds with 3 million tons of coal ash leaching arsenic into groundwater.⁶

- ❖ In order to expedite construction, company officials rushed eminent domain property takings; impacted landowners were improperly informed and offered inadequate compensation;⁷
- ❖ Six public schools - including three elementary schools - lie within the incineration/blast zones of the gas pipelines currently under construction; **the School Board was not aware of the plans until community members voiced their concerns at a recent school board meeting well after construction was already underway. To date, parents of students have still not been notified;** and
- ❖ Community members have not been adequately informed about both its existence and the known risks of gas pipelines and their construction hazards: residents generally thought the new pipes are water lines or infrastructure without risk of explosion.⁸

For these two EJ communities, we recommend Governor Northam immediately create:

An Interagency Task Force with involvement of impacted residents to look at and take actions to reduce or avoid the comprehensive impacts of the lateral and ACP pipelines and the Virginia ACP compressor station, since no existing agency has authority to address cumulative air, water, and land releases and exposures; to divide and oversee completion of these tasks:

1. Undertake: a. Quantitative Risk Assessments (QRA), b. Comprehensive Health Impact Assessments (CHIA), and c. Statements of Impact which taken together address the environmental justice, public health and safety, and cumulative hazards faced by residents of Buckingham (Appendix 1) and Chesapeake;
2. Extend the comment period for the Union Hill Compressor Station air permit to 60 days;
3. Require Dominion Energy to allow Union Hill community representative(s) to enter the Union Hill Compressor Station site to locate unmarked slave burial gravesites and to have gravesites and other archaeological resources surveyed by an independent or public surveyor for the purposes of historic preservation;
4. Undertake and make public baseline analyses of present drinking water, ambient air, transportation and existing health in these communities; and make that data available to the public without incurring delays and costs of FOIA;
5. Immediately notify parents of public school students at schools located in the blast radius of the Chesapeake lateral connection and Union Hill compressor station, and address concerns they raise; and

⁵<https://response.restoration.noaa.gov/about/media/chesapeake-bay-overcoming-unique-challenges-bringing-restoration-polluted-military-sites>

⁶<https://www.wavy.com/news/local-news/chesapeake/appeals-court-hears-chesapeake-coal-ash-storage-case/1066322252>

⁷ https://pilotonline.com/news/local/article_35553a50-cc46-5e36-bfaf-79cd77cf2b9d.html

⁸ PHMSA records annual pipeline incidents, including fatalities and costs.
<https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Portalpages>

6. Require developer-funded bonds for both projects to be held in escrow for Impacted Families to apply for direct assistance who experience any adverse health, mortality, economic, educational impacts or true market relocation costs.

For all infrastructure projects, we recommend :

1. Meaningful participation by impacted populations in permitting and monitoring including effective responses to citizen concerns as per Exec. Order #6;
2. Evaluation of climate and environmental justice impacts in all state policies, programs, and permits;
3. Reduction of state disparity in exposure by which black and brown communities disproportionately experience harm from toxic air, unsafe water, and public safety risks;
4. Development of equitable access to renewable energy sources (Appendix 2)
5. Creation of an interagency Task Force with involvement of impacted residents to look at and take actions to reduce or avoid the comprehensive impacts of the lateral and ACP pipelines and the Virginia ACP compressor station, since no existing agency has authority to address cumulative air, water, and land releases and exposures;

Signatories

Groups

Virginia Environmental Justice Collaborative (by consensus)
Friends of Buckingham
Virginia Interfaith Power & Light
Center for Sustainable Communities
Appalachian Voices
United Parents Against Lead & Other Environmental Hazards
Virginia Organizing
First Alliance Consulting Group LLC.
Sierra Club Virginia Chapter
Buckingham: We The People
Chesapeake Climate Action Network
Water is life. Protect it.
Allegheny-Blue Ridge Alliance
Highlanders for Responsible Development
Interfaith Alliance for Climate Justice
Friends of Nelson
Yogaville Environmental Solutions
Augusta County Alliance
RVA Interfaith Climate Justice League
Mothers Out Front, Hampton Roads

Virginia Pipeline Resisters
Voices from Bath
350 Loudon
RAPTORS VA
Protect Our Water Heritage and Rights (POWHR) Coalition
Preserve Giles
Harrisonburg-Rockingham County NAACP
Sacred Ground Historical Reclamation Project
Virginia Defenders for Freedom, Justice & Equality

Individuals

Swami Dayananda, LOTUS Center for all Faiths, Yogaville, Buckingham
Rev. Dr. Lakshmi Fjord, Friends of Buckingham; Chair: People's Tribunal on Human Rights and Environmental Justice Impacts of ACP and MVP
Queen Zakia Shabazz, Coordinator, Virginia Environmental Justice Collaborative
BeKura W. Shabazz, Founder, First Alliance Consulting LLC
Dr. Mary Finley-Brook, University of Richmond, Richmond
Dr. Irene Leech, Buckingham
Chad Oba, Heidi Dhivya Berthoud, Friends of Buckingham, Buckingham
Alexis Szepesy, Sierra Club Virginia Chapter
Suzanne Keller, retired epidemiologist
Hanuman, Heidi Dhivya Berthoud, Buckingham: We the People
Robert Dilday and Weston Mathews, Co-Directors Interfaith Alliance for Climate Justice
Ben Cunningham, Blue Ridge GeoGraphics, LLC
Kimberly Williams, Norfolk, VA
Steven Baggarly, Norfolk VA
Stacy Lovelace and Jessica Sims, Co-Directors Virginia Pipeline Resisters
Natalie Pien, Unitarian Universalist Church of Loudoun, Green Team Chair
Jonathan Sokolow, Attorney, Reston, VA
Russell Chisholm, Executive Committee Member of POWHR Coalition, Newport, VA

Appendix 4

Critical Unanswered Questions about ACP/Dominion Energy's Union Hill Compressor Station
For four years, we have tried to get state agencies to answer key questions:
here are 106 unanswered questions

PART 1: Technical Questions for the Air Permit and Permitting Process

Emissions

1. How high are the peak hourly emissions for Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) at Buckingham Compressor Station (BCS)? Minor source is based on annual emissions which are an average but peak emissions can really impact health!
2. Emissions during blowdowns occur in large concentrated plumes of methane and co-pollutants. How much of the emissions from the compressor station will remain in the Union Hill and Woods Corner neighborhoods, and how much will travel beyond? With schools are within 10 miles of the compressor station, how will our children be protected?
3. How far away will pollution from BCS extend and in which direction is it most likely to be carried based on wind and other patterns?
4. According to project description on the Virginia Department of Environmental Quality (DEQ) website, the estimated effect on air quality near the facility from the proposed project is that all emissions will comply with all applicable ambient air quality standards. Please share with us the data documenting the current ambient air quality. What is the difference between the ambient air quality now in the air around the proposed project and what is allowable?
5. Sulfur Oxides (SOx) and Hazardous Air Pollutants (HAPs) emissions seem to be higher in the 2018 permit application when compared to 2017 estimates. How can it be best available technology (BACT) if equipment replacement increases these dangerous emissions?
6. Since the recommended distance between compressor stations is usually less than 100 miles, why is the distance between ACP/Dominion Energy compressors so great, particularly since it concentrates dangerous pollution in the Union Hill and Woods Corner neighborhoods?
7. Why does BCS in Virginia have higher emissions than the ACP compressor stations in West Virginia or in North Carolina? Could the spacing of the stations be regularized to not place the greatest risk at Union Hill?
8. Given that industry standard is to have compressor stations at shorter intervals, distributing risks and hazards more evenly over transmission distances. How does ACP/Dominion Energy explain that they have only one compressor station per state, and therefore these are very large and impactful as needed to provide the pressure to cover 200+ miles between stations?
9. Given the fact that ACP/Dominion Energy has not accurately recorded the actual population living next to the BCS site, how will DEQ address the fact that the low population number used (29.4 people per square mile) allows ACP to use up to 75% less heavy pipes and 500% longer shut off valve distances? For air emissions at BCS alone, that means far greater blowdown contents between shut off valves or 15.6 miles apart.
10. Since greater emissions reductions have occurred at other compressor stations, how can the proposed plan for Union Hill be argued to be BACT?
11. Dominion Energy has expanded other compressor stations after permitting and construction. Can we anticipate that this compressor station will be expanded in the future?
12. Unless the company can be prohibited from expanding in the future, why is this facility not considered a major source of pollution now so stronger standards are applied?
13. Known pre-existing diagnoses at Union Hill, include diabetes, asthma and other lung conditions, chronic bronchitis and pneumonia, heart conditions, breast and other cancers, COPD, lupus, kidney disease, epilepsy, multiple sclerosis, brain tumor, migraines and more. Where are the studies to assure that the passage of the Transco pipeline through this portion of Buckingham is not contributing to these medical conditions? Does analysis of BACT take into consideration at-risk populations?
13. Given that particulate matter (PM) causes respiratory damage and there are technologies available to scrub PM from air emissions, how can ACP/Dominion Energy claim BACT if not scrubbing PM?

14. The air permit application and draft air permit do not discuss exact levels of 30+ Hazardous Air Pollutants (HAPS) but do show they will be emitted from BCS. How can we be confident in DEQ protecting our public health if benzene, toluene, etc. and other HAPs known to cause harm to humans are not limited and are tons of HAPs are allowed to be emitted each year?
15. Residents living proximate to compressor stations often report headaches, dizziness, nosebleeds, skin rashes and other concerning symptoms. The DEQ report states that anticipated pollution will not be not harmful to human health because it is within limits, which is also true for other dangerous compressor stations where people are sick. How can you assure us we will not suffer negative health impacts?
16. Could ACP/Dominion Energy increase the amount of gas compressed in the BCS in the future without additional air permitting?
17. While baseline emission data from Roanoke, Hopewell, and other parts of the state might provide the best available baselines for air modeling, how can we be assured of the accuracy of pollution estimates, when the characteristics of these places are clearly different from Buckingham and DEQ is basing the majority of these pollution estimates on unverified-in-real-life modeling outputs and laboratory testing?
18. DEQ air modeling for the BCS is based on many assumptions about temperature, altitude, and other factors that are not accurate for Buckingham. Why was field data not collected? How can you assure test results and thus pollution estimates are accurate?
19. How do you adjust for seasonal variability when assessing impacts of toxic pollutants on human health? For example, how do you take into account the higher exposure level of emissions that occur during the colder months when they stay closer to the ground?
20. The "emergency" gas turbine, which raises the combined horsepower closer to 57,000 is intended for winter months. How is this accounted for in the air permit? Can we be assured that use of "emergency" is not being used to "hide" higher levels of emissions in winter?
21. Please provide an analysis of the long-term effects of the interaction on the human body of all the emissions that will be released constantly and more so during the blowdowns? Many residents are not able to change residences and will be constantly exposed over many years for 24 hours a day every day of our lives.
22. The state measures National Air Ambient Quality Standards (NAAQS) in annual levels, but the blowdown events ACP/Dominion Energy has in their 2018 air permit application release acute emissions over shorter periods. How can nearby residents be assured their health is being protected when state measurements and regulations are not targeted at the specifics of the actual health risk?
23. How many total blowdowns per year, including all compressors, will there be? We never hear the same number twice for the expected number of blowdowns and discussions with other communities with existing compressor stations revealed that blowdowns occur far more frequently than it appears this permit anticipates.
24. What will be the procedure for providing warnings for scheduled blowdowns? Will nearby residents who have health issues be given sufficient time to leave the area until the pollutants are reduced? How long will they have to plan to be away from the area to protect their health? What conditions might affect that time?
25. From the discussion of the BACT analysis in the permit application, it appears that DEQ has relied on the top-down analysis conducted for other (smaller) sites. Shouldn't DEQ have required the applicant to conduct a fresh top-down BACT analysis since BCS is a larger source than the other compressor stations evaluated for BACT?
26. The SOLAR manufacturer for the compressor turbines does not warranty or guaranty emission reductions in real life will approach levels found in modeling tests. SOLAR suggests any estimates must be treated as a range contingent on local variables. Given this careful language and the direct precaution in the SOLAR's sales materials warning against using their estimates in permitting decisions, why has there not been additional independent verification to assure estimates are accurate for Buckingham's local conditions?
27. Since the new technology ACP/Dominion Energy bases their predicted emissions on has never been tested in the field and is taken from manufacturers' laboratory results under

- generic conditions, is it not the best practice to hold the air permit application until the new technology has been tested in similar situations? For example, some of the proposed emissions controls have only been used with small turbines dissimilar to those proposed for BCS, isn't additional testing and use required before we can trust the manufacturer's claims?
28. At least one of the SOLAR turbines has demonstrated successful use of catalytic combustion technology. This technology has the potential community benefit of reducing the risks associated with the ammonia injection. Did the BACT analysis consider the use of catalytic combustion technology?
 29. Why is it considered appropriate to use Occupational Safety and Health Administration (OSHA) work standards to apply to people exposed in homes? Since most people spend more than 8 hours in their homes each day, how can this be considered a relevant metric to assess home exposure?
 30. ACP/Dominion Energy's BACT claim seems to involve selective capturing of methane, so how could DEQ assure these levels are lower to protect our health and reduce threats from climate change? Methane is 86% more damaging to protective ozone than carbon dioxide. How does DEQ plan to require ACP/Dominion Energy to accurately measure as well as to eliminate the release of methane into our community?
 31. In the face of a climate change crisis, how can DEQ permit the BCS to release nearly 80 tons of methane per year?
 32. Is there the possibility of methane leaking from the BCS or surrounding infrastructure that is unaccounted for in the permit application?

Timing and Format of Permitting Process

33. Why do you not provide more time for public comment since impacted communities do not regularly have internet access when large permit documents are stored as web files? Can you not provide summary tables or other education materials to make content more accessible to impacted communities?
34. Will you extend the comment period for another 30 days beyond September 11 so we have additional time to review documents and prepare comments?
35. Why is the public hearing for this permit being held on the last day of the comment period? This prevents anyone who attends and learns more from making a comment. It also prevents citizens who need time to consider new information from responding after they have time to do this.
36. What is the timeline for the public comments to be provided to the Air Pollution Control Board (APCB)? When will the APCB public comments be made available?

Monitoring and Compliance

37. Why do impacted community members have to carry the burden of baseline testing? Will the state compensate residents for the time and money we are investing in baseline testing, since DEQ has not done this necessary work?
38. How can we access data/record-keeping on an ongoing basis to ensure the records that are being kept and so that we can be aware of the accurate quantities of emissions we are being exposed to daily, monthly and yearly?
39. How will we know all of the relevant information is being shared with the public in a timely manner? Polluting companies and state agencies have a checkered history in terms of transparency.
40. Does DEQ plan to establish fence-line monitoring systems to notify local residents when air pollution levels from BCS are unsafe?
41. How monitoring and compliance systems involve impacted community members and use local knowledge to make our system more robust? How can we be assured ACP/Dominion Energy will not be allowed to create a sub-par evacuation process or one that does not fit our rural challenges?

PART 2: Questions Not Covered in the Air Permit Application or Draft Permit

Population

42. Why did Federal Energy Regulatory Commission (FERC) and DEQ not use the actual numbers of homes and residents of Union Hill in BCS permitting applications?
43. Now that it is public knowledge that there are hundreds of people and former Slave and Freedmen historical sites requiring state protection, how will you rectify your earlier errors?
44. Why is the BCS compressor station with the highest level of toxic air emissions of the three state-based compressor stations located in the middle of the Freedman community of Union Hill? In draft air permit, it cites Union Hill's "above normal ambient air quality" as the reason. Are people paying a price for being good stewards?
45. Union Hill community highly values its nonindustrial character. It is a quiet, suburban level populated, forested area, with clear night skies and ample wildlife. Descendants of people enslaved here have strong cultural ties to land purchased after freedom. Have former slave and Freedmen cultural practices, such as Black church homecomings and family reunions, been factored into health impact assessments of numbers of people directly impacted by BCS air emissions? Especially when all too frequent blowdowns will occur at the BCS site in this neighborhood?
46. Why are two of three ACP compressor stations in predominately African American neighborhoods and all three are in areas with disproportionately high poverty?
47. Dozens of families in the impact area of BSC have daily connection to lands once part of a familial complex of slave plantations. Local Freedman families have evidence of seven generations of continuous habitation in Union Hill. Since the pipeline infrastructure does not actually cross the land owned by many, they will not receive any compensation for their losses. What is being done to ensure that these families' quality of life and safety will allow them to continue to live in the area for generations to come without loss of health or wealth?

Historical Sites

48. Native Americans historical sites and artifacts will be disturbed with the construction of the Atlantic Coast Pipeline and potentially the Buckingham Compressor Station. Since these lands and histories have never been recognized by Virginia due to inadequate state and federal effort to document Native American claims in this area, how will you ensure that important history is protected?
49. FERC and subsequent DEQ consultation practices violated international norms for Free, Prior, and Informed Consent (FPIC) of Native Americans based on the United Nations Declaration on the Rights of Indigenous Peoples. How will adequate consultation with the descendants occur?
50. The only archaeological excavation of Native American sites in Buckingham took place at the James River at Wingina. However, University of Virginia archaeologists noted the large distribution of sites they could not undertake, as well as the hundreds of years of artifacts recorded by amateur collectors. The Advisory Council on Historic Preservation (ACHP) in a letter to FERC called for far more pre-colonial and antebellum archaeological study of Buckingham's sites at the James River and Union Hill before ACP construction. Can you explain how state agencies are confident in the historical records presented by ACP/Dominion Energy when there have never been adequate state ethnographic, anthropological or archeological studies in this area? How will we avoid the near total erasure of both pre-colonial and antebellum histories in a key site of Virginia and U.S. history?
51. To ensure that history is preserved, how will the exact number, location and historical period of each of the dozens of burial grounds and cemeteries in 1.2 mile radius of the compressor station be recorded?
52. A Buckingham County slave burial map was first created in the 1930s under the Works Progress Administration, and Buckingham Historical Society members noted that at least 50 more than the hundreds surveyed are yet to be surveyed. This includes a more than 100+ unmarked slave burial ground on the former Variety Shade Plantation land. We know by red dots on this map that in the 68-acres purchased by ACP/Dominion Energy for the BCS site,

there are numerous slave burial sites. Why have state agencies not required that 68 acres to have a cultural resource report filed?

53. How will the historically segregated African American schools in this part of Buckingham be recognized and protected? Why these have not received state recognition like those in other parts of the Commonwealth?

Liability and compensation for damages

54. Farmers have reported a current gas leak in the existing Transco 4-pipeline corridor in Union Hill. Has Transco reported that leak to state agencies? How often have such leaks on the Transco occurred?
55. Local residents are concerned that Transco paid no liability or damages fines directly to families whose homes were destroyed or damaged by the explosion in Appomattox County next to Buckingham County. What protection will be provided to us if the compressor station causes damage?
56. Buckingham County is a low medical-resource county. There is a clinic with a part-time doctor. Residents have to travel to Charlottesville or to Farmville -- long distances -- by ambulance in emergencies. Everyday healthcare requires driving long distances, at high costs, for this underserved, high poverty populations already. ACP/Dominion Energy denied a request by the Buckingham Planning Commission to set aside a bond to pay for the costs of health impacts from BCS. If the compressor station makes us sick or sicker, how will the state ensure we get the health services we need?
57. Mental health services are inadequate in our rural area. Now, given the additional stress and pressure already expressed by nearby residents about the threat to the health, quality of life, value of their land for themselves and future generations posed by compressor stations, how will we obtain enough social workers and psychologists to provide mental health services to this most vulnerable population? How will the state support those cannot afford these services already and if built, these additional social and monetary costs of ACP/Dominion Energy's new infrastructure constructions and operations here?
58. If community members get sick as a result of toxic emissions from the compressor station like formaldehyde, benzene, and hexane, would they be forced to sign non-disclosure agreements before receiving help with medical bills from ACP/Dominion Energy or Williams Transcontinental (Transco)?
59. We have been told that our home insurance premiums will not increase because we live in the blast zone of the compressor station. We have ample evidence from other communities already proximal to pipelines and compressor stations that homeowners' insurances companies are dropping customers at these sites? What recourse will we have if they do increase or if our insurance carriers drop our coverage?

Risk Assessments

60. Since Quantified Risk Assessment (QRA) is the best available management practice in instances of social vulnerability and risk of exposure, given the high of economic and political marginalization in Buckingham, isn't a QSA called for?
61. If a Comprehensive Health Impact Assessment (CHIA) has not been conducted, how did DEQ assess existing health conditions and numbers of persons in close proximity together with air modeling at BCS?
62. If state agencies have not looked at risks comprehensively, how can DEQ and other agencies assure Buckingham residents that the benefits outweigh the risks? Why not use known medical science to prevent known public health impacts of large compressor stations before issuing ACP/Dominion Energy's BCS air permit for public comment?
63. Why is the intersection of the existing 4-pipeline Transco corridor at BCS not placed at the forefront of the risks and hazards uniquely faced by the people of Union Hill? Given the then quantitative higher risks and hazards of leaks at this site alone?

Energy Poverty

64. The ACP and the BCS, if built, would not create energy access in Union Hill or Buckingham generally. Instead, BCS would contribute air and water pollution raising health costs paid by local residents. How will the state address this inequity?
65. On the basis of poverty alone, what does the state plan to do to address the fact that many in Union Hill and Buckingham live in energy poverty, defined as unable to cover basic utility provision? Union Hill's population is predominantly elderly and the very young, the most vulnerable to high heat and cold conditions. A door-to-door household study around BCS showed residents have pre-existing health conditions but 55% of the population responding could not afford air conditioning. How will the state consider the inequity of highest environmental impact costs per capita of the ACP on a National Environmental Policy Act (NEPA), majority black, impoverished community?

State Water Control Board

66. Will the State Water Control Board consider impacts to the wetland on the site of the BCS? If not, who is responsible?

Economics

67. We did not choose to live in an industrial area and our community is not zoned for such use. However, the Special Use Permit allows this industrial equipment to be placed in our community. How will our property values be protected? How can we be assured that this is not the start of a permanent change in use?
68. Has state agencies considered the dropping values of property in this community? The latest sales involved far lower market values than before ACP's plans for BCS.
69. Economists document that existing pipelines can provide more capacity and will transport gas three to eight times cheaper than can the Atlantic Coast Pipeline. Why are we not using the most cost effective means?
70. The presence of the compressor station in our community will affect current clean and sustainable economic uses of our property. Construction of BCS and daily operations will impact raising cattle and other domestic animals, growing crops, our kitchen gardens, a yoga teaching and retreat center of Yogaville, with a large resident and over 10,000 annual visitors seeking peace and spirituality. Future plans already foreclosed in this neighborhood include a greenhouse business and a small winery. We ask DEQ to consider and weigh in the balance ACP/Dominion Energy's desire for profits for shareholders' benefits not Virginia utility consumers. Do our investments in good quality of life and future economic prosperity have to be sacrificed?
71. How is the state ensuring that our community is not economically damaged by this infrastructure and that it will be economically sustainable in the future?
72. When renewable and alternative energy is sited on property, landowners get monthly lease payments. Instead, properties crossed by pipeline receive a one-time easement payment. How much income could landowners receive if this land was used for solar infrastructure?

Renewable and Alternative Energy

73. How many solar jobs and how much energy could be produced if the money invested in the BSC was invested in solar infrastructure instead?
74. We ask DEQ to support the Union Hill solar projects. What can DEQ do to ensure inequity in energy burdens (i.e., toxic exposure) changes to equity in access to income producing renewable energy?

Baseline Testing

75. We saw that in December of 2016, the Office of Environmental Health & Safety (OEHS) made a clear recommendation to DEQ to do baseline testing of well water and septic fields along the length of the ACP. Why was that not done?
76. Does DEQ know that 100% of drinking water, all water, is from individual wells in almost every part of Buckingham, including Union Hill? Has DEQ assessed the distance of these

wells to underground aquifers where the ACP plans to intersect with the existing 4-pipeline Transco underground in a large wetlands?

77. We also saw that in October of 2017 that VA Department of Health (VDH) recommended to the DEQ to do surveys for both the ACP in karst topography of wells and surface water. Why was that recommendation not accepted and followed through? Geologic reports for the James River where ACP/Dominion Energy plans to horizontal drill underneath the river find “karstic rock features” and a seismic faultline. As this site is very close to the ACP’s BCS site and the James River is a major river basin and primary water source, what has DEQ done to assess the hazards and risks of these two interlinking major ACP infrastructure sites?
78. Will DEQ conduct baseline testing of well water, surface water, air, and noise? If so, when? Shouldn’t it be done in every season of a year to be most accurate?

Local Emergency Response Capacity

79. Has the facility prepared a Spill Prevention Contingency and Countermeasure plan for the tanks and have they shared the SPCCs with the local emergency planning agencies?
80. What plans have been made for local emergency responses?
81. When will we see evacuation plans?
82. We are worried about the inadequacy of local emergency response services in Buckingham and the highly pressurized, toxic, explosive, and flammable nature of the materials at BCS and in other ACP infrastructure. How will the state assure the safety of local residents?
83. How will ACP/Dominion Energy use local knowledge of limitations in emergency response to make our system more robust? How can we be assured they will not be allowed to set a standardized evacuation process that does not fit our local challenges and characteristics?
84. Many compressor stations start without clear evaluations plans. We know people currently living with compressor stations that have no local emergency plans. FERC does not enforce their provision. What steps can we take if ACP/Dominion Energy’s promised evacuation plans are inadequate to assure public safety?

Necessity

85. Are you convinced of the necessity of the ACP when there are existing pipelines that could carry this gas and they were not adequately explored, according to FERC Commissioner Cheryl La Fleur?

Noise

86. We have seen documentation of compressor stations of the same size and same general equipment as BCS generating 90 decibels of noise during blowdowns. How can you assure BCS noise levels will stay below the 55 decibels permitted?
87. Dominion representatives repeatedly tell the press residents will not even notice the noise of the compressor. On what evidence is this based?
88. Please provide us with studies documenting the long term health effects of long-term exposure to permitted noise levels of 55 decibels.

Property Rights and Eminent Domain

89. People in our community have eminent domain court proceedings scheduled for 2019. Can they be assured they will have fair access to all levels of the courts before ACP and BCS construction?

Waste

90. Gas from Marcellus shale has been recorded to contain higher than average amounts of radioactive materials. These radioactive materials and other pollutants end up in the waste from pigging operations done on site at Buckingham. What is the protocol for measuring, storing, and disposing of the toxic waste from the approximately 10 pigging operations per year in the BCS permit?

91. We have been told the BCS construction and ACP construction will require significant water and that the produced water or wastewater containing pollution will be trucked out of Buckingham. Where is the water coming from?
92. Where will waste water from construction activities be taken and dumped?
93. How many water trucks will Buckingham residents need to anticipate on our roads during construction?
94. What are the plans to monitor and control particulate matter pollution from truck construction traffic and other construction activities?

Recordkeeping and Transparency

95. Why are we the last to find out what will happen in our neighborhood? Why do we have to rely on Freedom of Information Act requests to get the real story?

Staffing/Security

96. Given that wi-fi transmission is unreliable in Buckingham, how can Dominion claim use of BACT? Fibre optic cables are the proven best current technology. What can be done to increase security of remote control of BCS from West Virginia?
97. We have received conflicting information about 24/7 staffing of BSC for onsite real-time data collection & monitoring during the life of the compressor station. Will there always be staff on site, even on weekends, holidays, and after the first year?
98. Can the APCB approve the permit when there does not appear to be a Special Use Permit (SUP) for the stacks?
99. How is it possible for DEQ to go forward with compressor station permit hearings with the uncertainty that exists regarding FERC's certificate?

Transco Pipeline

100. Many gas industry reports, and even FERC Commissioner LaFleur, argue the ACP is unnecessary and redundant. If the ACP is canceled due to market shifts or regulatory shortfalls, would the BCS still be built to move the increased gas that is expected with the expansion of the Transco pipeline?
101. Can increases in Transco gas compression in Buckingham move through the compressor without being regulated in an air permit?
102. Would impacted residents be consulted prior to future decisions about increases in gas transportation through the BCS or can DEQ approve increases without community knowledge or input?

Ammonia Tanks

103. The size of the ammonia tanks on the BSC site have increased from 8,000 gallons to more than 13,000 gallons. How does DEQ assure the safe handling of this dangerous material?
104. What relation has this ammonia storage to the Control Board hearings on ammonia set for September 11 & 13?

Electromagnetic Radiation

105. Microwave communication towers impact health due to electromagnetic radiation (EMR). What documentation can you provide us on the effects of exposure on nearby residents from microwave towers like that proposed at BCS?

Uncertainty and Foreboding Fear

106. Every time Buckingham Board of Supervisors has a meeting, do you know we wonder what new pipeline-related surprise we will face? Every low flying helicopter and construction crew invading our quiet neighborhood creates a sense of dread and fear that means our quality of life has already diminished.