

Air permit comments about the proposed Buckingham Compressor Station

Heidi Dhivya Berthoud 9-21-2018

heidi1008@gmail.com

434 979 9732

366 Wyland Rd

Buckingham VA 23921

Our home is high on a bluff overlooking the James River and out towards the Blue Ridge. As I write, I sit on our southwest deck, my 3 season outdoor office, with my 3 feline assistants, who inspire deep purpose in all that I do. We are about 6 miles from the proposed BCS, and about 1 mile downstream from the proposed HDD crossing; the HDD would be just upstream from Yogaville. I am part of the Yogaville Community. I enjoy the quiet and clean air of my country abode with my husband, 3 cats and wildlife. I speak for my family, and also as a member of Friends of Buckingham.

DEQ and Dominion assure us this compressor station would be the best in class, meeting all regulations. We like our air and water clean and we don't want the tons of pollutants dumped on us that the 'regulations' say are okay.

We ask for a 30-day extension of the comment period.

Please deny this permit and immediately delay until the issues below are properly addressed.

At the air permit public hearing at Buckingham Middle School on 9/11/18 we came to understand from Attorney David Neal's comments [Southern Environmental Law Center - SELC] that the SAPCB has extended capacities and obligations beyond the DEQ air department's narrow scope of technical evaluation of the compressor station. This is also beyond the scope of the SWCB. Thus SAPCB has a hefty and wider scope of responsibility to which I now appeal.

It is the responsibility of the Air Pollution Control Board to consider:

“2010 Code of Virginia, Title 10.1 - CONSERVATION. Chapter 13 - Air Pollution Control Board (10.1-1300 thru 10.1-1328) § 10.1-1307. Further powers and duties of Board.

E. The Board in making regulations and in approving variances, control programs, or permits, and the courts in granting injunctive relief under the provisions of this chapter, **shall consider** facts and circumstances relevant to the reasonableness of the activity involved and the regulations proposed to control it, including:

1. The character and degree of injury to, or interference with, safety, health, or the reasonable use of property which is caused or threatened to be caused;
2. The social and economic value of the activity involved;
3. The suitability of the activity to the area in which it is located;”

I will address this statute's 3 sections below.

I. The character and degree of injury to, or interference with, safety, health, or the reasonable use of property, which is caused or threatened to be caused.

Dominion repeatedly asserts that safety is their first priority, to us, to their stockholders, in their green-washed advertising. For 4 years now we have asked for, and have yet to see evacuation plans. I appeal to the SAPCB to not allow approval of an air permit without considering health and safety first – it appears to be your number one directive. Worst-case scenarios must be addressed. The Red Cross could easily help figure things out, and they are motivated; even if our elected officials are not. We don't want anyone to live near a high pressure 57,000+ hp compressor station, which is highly explosive [methane is not only highly explosive, it is also 86 x more of a green house gas & ozone destroyer than CO2 Scientific American, December 2015 <https://www.scientificamerican.com/article/how-bad-of-a-greenhouse-gas-is-methane/%5D>, highly toxic, and an easy terrorist target.

If this permit is granted, it will allow the ACP to move forward. Knowing that consequence, you have the obligation to look at the larger degree of injury to all of us. The combined effects of gHg emissions of both the ACP and MVP have been equilibrated to an additional 46 coal burning plants and 25 million cars. See the reporting of Oil Change International: [New analysis: Mountain Valley and Atlantic Coast Pipelines are Climate Disasters](http://priceofoil.org/2017/02/15/new-analysis-mountain-valley-and-atlantic-coast-pipelines-are-climate-disasters/), Feb, 2017, <http://priceofoil.org/2017/02/15/new-analysis-mountain-valley-and-atlantic-coast-pipelines-are-climate-disasters/>. This does not move us forward, but instead contributes disastrously to the urgent climate crisis.

On September 12, 2018, the [Northam Administration Takes New Steps to Fight Climate Change, Ocean Acidification](https://www.governor.virginia.gov/newsroom/all-releases/2018/september/headline-829610-en.html), <https://www.governor.virginia.gov/newsroom/all-releases/2018/september/headline-829610-en.html> That's so encouraging. But! No-where does he talk about canceling the ACP and MVP. This is the behavior of insanity.

The first of **three announced actions** are to:

1] collaborate on *reducing carbon pollution from the transportation sector*. Ignoring the equivalence of 25 million additional cars sets this plan back from the start. The second action has a broad reach, and close to home; 2] to *Combat Ocean Acidification and develop and Ocean Acidification Action Plan*. The third action: 3] *Develop a framework for limiting methane leakage from natural gas infrastructure and landfill*. Hey! Let's keep it in the ground! The safest and wisest thing to do. We all know plumbing inherently leaks. It's the nature of the beast. Why go there when we know these pipelines are not needed, and we have renewable alternatives that far outpace fossil fuels economically, provide more local jobs, and don't contribute to gHG.

At a Virginia Environmental Justice Coalition [VEJC] meeting with the DEQ air department on 9/20/2018, I talked with Mike Dowd about this, and how it took some environmentalists to point an infrared camera at pipeline infrastructure to show the methane leakage that industry was not admitting to. He said, he wished DEQ could afford those cameras. In this meeting, the DEQ made clear to us how under staffed and funded they are. Their goal is to have 50 staffers, whereas now they have 38, and it takes 2 ½ years to get a permit reviewer up to speed. That's worrisome.

We activists have created our own Pipeline **CSI – Compliance Surveillance Initiative**, <http://pipelineupdate.org/csi/> and we get regular reports of the ongoing construction disasters of the MVP, which DEQ cannot keep up with. Citizens are doing what the government cannot, and we warned y'all about the impossibility of doing these projects. Now we all have to live by the consequences of a fractured, fragmented review process. You, SAPCB have the capacity to review the larger picture. *Please* do so! MVP will no doubt need a compressor station, a huge omission of their plan. You could just say no to the BCS, and set firm precedent for the MVP.

Matt Strickland just attended a climate summit in California, where Gov Brown signed a pledge for California to go 100% renewable by 2045. We can't do that AND have any new pipelines.

My life work is on the preventative end of the spectrum. I am a massage and yoga therapist and teacher and a retired dental hygienist. Ralph Northam is a doctor who has pledged the Hippocratic Oath to do no harm. He lives a very conflicted life, because by not denying these pipelines he is incurring immediate local, regional and global damages, disease and death by allowing the poisoning of our air, water, land, health. I say the SAPCB has the obligation and power to protect us from his wavering inaction.

I am the secretary for Friends of Buckingham [FoB], but as is the case in volunteer grassroots organizations, I am also the Baseline Testing Project Manager. At the VEJC/DEQ meeting on 9/20/18, the DEQ expressed great interest in the baseline testing that we are doing. We have asked that:

Prior to permitting, the DEQ must require and complete a Quantified Risk Assessment (QRA) and work with other state agencies to conduct a Health Risk Assessment (HRA) and a Health Impact Assessment (HRI). This would counter the compartmentalization of hazards to water from hazards to air, from safety, environmental justice, health impacts from each different 'class' of toxic pollutants and emissions and site suitability.

As Baseline Testing Project Manager for FoB, I went to the local, then regional health departments to ask for assessments. They sent me on to you, the DEQ, who also said no. We were left to defend for ourselves. Thus we did the right thing, taking up the huge project of testing 30 well water sites close to the 26 miles of proposed ACP in Buckingham. We have done air monitoring for PM, VOC's, formaldehyde and H2S, in 8 homes around the compressor station site and are in process with health surveys. We are

also monitoring the 36 streams crossings by the ACP, including 7 flood plains, which is part of the collaborative Pipeline CSI program mentioned above.

This testing should be a standard requirement for any potentially polluting industry. But for this to be a regulatory requirement, would be an admission of the dangers. I also understand that these projects are very costly. We have written and received grants for this project for a mere \$40,000, but its all volunteer labor doing the legwork. I agreed to send links to our website, which we have the intention of sharing with all who are working to protect their air, water, land, health.

<http://www.friendsofbuckinghamva.org/friends/baseline-testing-for-well-water/>

<http://www.friendsofbuckinghamva.org/friends/baseline-testing-a-compilation-of-resources/>

This is the program FoB is following: **Citizen Science Toolkit**, http://www.friendsofbuckinghamva.org/friends/wp-content/uploads/2017/04/SWEHPCitizen_Science_Toolkit.pdf, created by **Southwest Pennsylvania Environmental Health Project [SWPA-EHP]**, <https://www.environmentalhealthproject.org/>. This toolkit was just recently created in 2018 for communities afflicted by oil and gas development.

We consulted extensively with Eric Faisst, Director of the Madison County Health Department, who shepherded the only public comprehensive baseline testing project on the planet, which was a harmonic convergence of many unusual circumstances, not the least important, is that Eric's background is in environmental health, and that 2 members of the Madison County Board of Supervisors requested it [Buckingham Supervisors sold us out, laid out the red carpet for Dominion who has been essentially bribing the community for years. There were 87 comments against the SUP for the BCS, 4 in favor]. Eric collaborated with SWPA-EHP. He has offered to confer with Virginia State government on the work he is doing. Please take him up on it. Let me know if I can cheerlead that process by directing me to the most effective department.

Madison County (NY) Health Department Baseline Community Environmental Monitoring Results. Madison Cty, NY, Dept Health – compressor station testing, <http://www.friendsofbuckinghamva.org/friends/wp-content/uploads/2017/04/1Madison-Cty-NY-Dept-Health-compressor-station-testing.pdf>, for a 36-page report including well, surface waters, air, noise.

II. The social and economic value of the activity involved. The owners of Transco Pipeline have said there are enough pipelines in place to meet demand. THESE PIPELINES ARE NOT NEEDED. It is well known that renewables are far more economical than fossil fuels, nuclear.

SAPCB, I urge you to weigh in on this essential issue that seems to be first and foremost concern of many who may not be convinced [uneducated] about the environmental,

environmental justice, safety and health risks, which all have their costs, which are not even factored into the costs, as the industry would not bear them, the ratepayers would.

Unnecessary high capacity natural gas pipelines are being built across our nation. Investors will continue to build pipelines as long as there is an outdated federal policy guaranteeing at least a 14% rate of return with no risk.

Economy:

- On average [only 54% of existing natural gas pipeline infrastructure](https://www.nrdc.org/experts/amy-mall/natural-gas-industry-admits-new-pipelines-arent-needed) is being used
<https://www.nrdc.org/experts/amy-mall/natural-gas-industry-admits-new-pipelines-arent-needed>
- CEO & President of the South Carolina Small Business Chamber of Commerce, Frank Knapp, [warned that Dominion Energy was misleading the public at a press conference, https://scsbc.org/about/president-and-ceo-frank-knapp/](https://scsbc.org/about/president-and-ceo-frank-knapp/). He also said Virginia was paying for a pipeline they didn't need
- Cost of the new pipelines will make energy costs rise by 30% or more
- Higher energy costs will strain businesses and put jobs at risk
- [Renewables are on track to produce energy cheaper than fossil fuels, https://www.forbes.com/sites/dominicdudley/2018/01/13/renewable-energy-cost-effective-fossil-fuels-2020/ - 2049127d4ff2](https://www.forbes.com/sites/dominicdudley/2018/01/13/renewable-energy-cost-effective-fossil-fuels-2020/)
- [Tesla Giant Powerpack Battery reduced energy costs by 90% in Australia, https://electrek.co/2018/05/11/tesla-giant-battery-australia-reduced-grid-service-cost/](https://electrek.co/2018/05/11/tesla-giant-battery-australia-reduced-grid-service-cost/)

Three excellent papers on the economics of these pipelines at FoB site:
<http://www.friendsofbuckinghamva.org/friends/economics-of-the-pipelines-3-papers-by-tom-hadwin/>

To Understand Pipeline Economics Follow the Money
Excerpts from Comments to the SCC_Aug17-2018
[Hadwin-Comments_Air-Quality-Permit-Buckingham-Compressor-Station](#)

The above articles are authored by Thomas Hadwin. Mr. Hadwin worked in electric and gas utilities in Michigan and New York. He led a multi-disciplinary team responsible for siting and gaining regulatory approval of multi-billion dollar projects. The group was also responsible for assuring that company facilities complied with state and federal environmental regulations.

He also served as a tech entrepreneur, national business consultant and educator.

You can also go to this site for more articles, which is produced by the **Friends of the Central Shenandoah Valley**, <http://www.censhen.org/>. Contact: tomh@censhen.org

III. The suitability of the activity to the area in which it is located

Excerpts from 2 papers by Lakshmi Fjord, PhD on FoB website.

FoB Critical Questions BCS Air Permit 9-18-18

<http://www.friendsofbuckinghamva.org/friends/wp-content/uploads/2018/09/FoB-Critical-Questions-BCS-Air-Permit-9-18-18.pdf>

UH Household Study Stats Sheet 9-18 9-18

<http://www.friendsofbuckinghamva.org/friends/wp-content/uploads/2018/09/UH-Household-Study-Stats-Sheet-9-18-9-18.pdf>

Unsuitability of Union Hill, Buckingham VA as only ACP Virginia compressor station site

Dominion has consistently used misinformation about the factual population, race, and omission of historic cultural resources in submissions to Buckingham elected representatives, to FERC and DEQ. Misinformation that erases the name of the community, denser populated numbers of people living in close proximity, majority African American race, and erasure of their Former Slave and Freedmen history (as well as former plantation history) has shaped decision-making at every level of ACP's permit processes.

1. Dominion unfairly singled out Buckingham County from all counties along the three state route of ACP to claim it has “no historic resources” whether archaeological or architectural in that segment. Yet in all other counties, completely similar resources of early and mid-20th Century and 19th Century homes, churches and their cemeteries, bridges, dilapidated farm structures and stores, etc. were listed and photographed for 1674 pages. Alone, Buckingham's history was/is denied and erased.

❖ In Sept. 18, 2016 ACP filed a 1674 page cultural resource application to FERC. For Buckingham County only, ACP had “no recorded resources identified within the modified project APE” (Appendix D: 31).

❖ In March 24, 2016, ACP filed their Addendum of cultural resources. In Appendix D on P. 31, for Buckingham ACP reports only “three [total] resources are “documented within the modified project APE include three single-family dwellings that range in date from circa 1940 to circa 1965 . . . They have no known association with a significant event or person and are not associated with any broad patterns in history.”

Pp. 330, 331, and 332 are photos of that list of homes/addresses: 330 & 331 **are the same home/same photo. 332 is not in Union Hill.** L. Fjord identifies 330/331 – the only cultural resources listed for the whole county of Buckingham - as Theo Haskins' on S. James River Highway, an abandoned trailer next to a modular home, without the family cemetery that adjoins it.

- ❖ That is, Dominion’s contractors had to visibly ignore 99 homes on all sides of the CS 2 site, 2 historic black churches and their cemeteries (Union Hill Baptist est 1868; Union Grove Missionary Baptist est. circa 1920); 1 historic white church and cemetery est. 1831, 2 historic black school sites, the 1880s Freedmen home place of the Harper family next to the proposed CS site, no photos of the Variety Shade tobacco barn or of Shelton Store, which is visible from the road in Union Hill.
- ❖ May 3, 2016, “Union Hill/Woods Corner Rural Historic District” Buckingham, VA was listed by Preservation Virginia as a “Most Endangered Historic Place” in Virginia.
Notification of that listing and its complex of historic resources, marked and unmarked slave burials, churches, cemeteries, former plantation sites, farm structures, homes, photographs, and slave plantation neighborhood history have been part of public record of comments made to the Buckingham Planning Commission, the Buckingham Board of Supervisors, to FERC, by Dr. Lakshmi Fjord, Justin Sarafin and Sonja Ingram of Preservation Virginia since August 2016.

2. Dominion knowingly erased the existence of Union Hill as a known community, and its 99

households visibly within 150ft – 1-mile radius on all sides of their ACP VA compressor

station site. In their 2015 FERC application and in all local and state permit processes both written and submitted at public hearings, ACP used the 2010 census average person per square mile data for the whole of Buckingham County – 29.6 – to report the population for ACP CS 2.

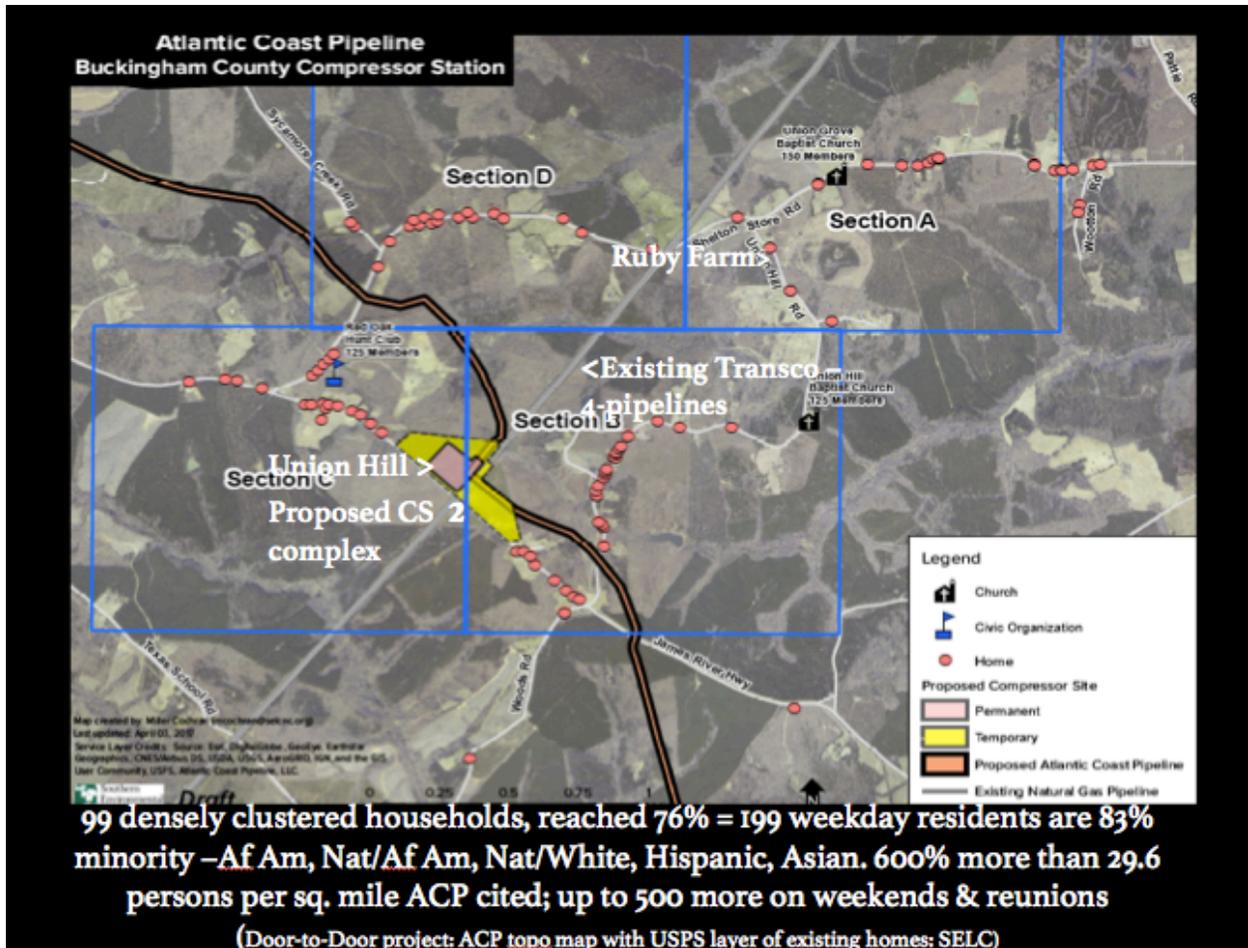
- ❖ On May 30, 2018, the spokeswoman for Dominion to the Governor’s Advisory Council on Environmental Justice claimed “it is the law” to do so -- when National Environmental Protection Act-NEPA guidelines state the opposite is true:

“The fact that census data can only be disaggregated to certain prescribed levels (e.g., census tracts, census blocks) suggests that pockets of minority or low-income communities, including those that may be experiencing disproportionately high and adverse effects, *may be missed in a traditional census tract-based analysis.*” *Caution is called for in using census data due to the possibility of distortion of population breakdowns* ... In addition to identifying the proportion of the population of individual census tracts that are composed of minority individuals, analysts should attempt to identify whether high concentration "pockets" of minority populations are evidenced in specific geographic areas. ... The IWG guidance also advises agencies not to ‘artificially dilute or inflate’ the affected minority population” (1997, 15-16).

- ❖ The Union door-to-door household study of Union Hill designed and conducted by Dr. Lakshmi Fjord (UVa, Dept. of Anthropology) began in August 2016 to uncover the actual 1-mile radius demographic and historic data for the CS 2 site has had 3 stages for a total of 4 months, and ending Sept. 4, 2018. The study follows NIH protocols for health information confidentiality, and community research guidelines. Open-ended interviews of 1-1.5 hours took place in 67 of the 75 households reached. Data includes: factual population, race, ages, pre-existing diagnosed health conditions, family heritage in Union Hill and nearby, and existing economic or food source uses of their land.

ACP's Buckingham CS site map found at dom.com, with a layer of household addresses added by Southern Environmental Law Center based on USPS postal addresses, proves that Dominion always knew and could submit accurately that CS is not "sparsely populated," is not 29.6 people per square mile.

- ❖ There are many cost benefits to Dominion to erase the population of Union Hill. By contravening NEPA guidelines, FERC in ACP's Final Environmental Impact Statement-FEIS reports no environmental justice issues besides low-income for the entire ACP route, which includes Union Hill-sited CS 2 (FEIS 4.9.9.1 Demographic and Economic Data, Vol 4-512). FERC notes their concerns if there were an African American majority population at this site:



“As discussed in section 4.11.1, air pollutants associated with ACP and SHP include increased dust as a result of construction equipment and vehicles, and compressor station emissions, which include carbon monoxide (CO), carbon dioxide (CO₂), methane, and nitrous oxide (NO_x); volatile organic compounds (VOCs); and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}). These air pollutants are known to increase the effects of asthma³¹ and may increase the risk of lung cancer (Nafstad et al., 2003).

Due to high rates of asthma within the overall African American community, we consider this community especially sensitive” (FEIS Vol 4:512)

- ❖ Union Hill household data including revised population, race, and existing diagnostic health conditions, is in the public record to Buckingham elected representatives, 2016-17; to FERC in EIS public comments by Dr. Fjord and by Southern Environmental Law Center (SELC), 2017; by Dr. Fjord in 401 Water permit comments and NW12 Water Board comments, 2017-18.

- ❖ Updated household data (Sept. 3, 2018 updates):
 - 75 of 99 households reached for a 76.5% response rate, an outstanding rate in social science research.
 - 199 weekday residents; with hundreds more on weekends, bimonthly, etc.
 - 83% are minorities: African American, Native American/African American, Native American/White, Hispanic, and Asian
 - 17% are White
 - Children 0-17 are 32%; Elderly are 25%
 - For 67 households, we have listed in the table existing diagnosed health conditions that would be impacted by the combination of emissions applied for at BCS, including particulate matter, radon, volatile organic compounds, and list of EPA emissions DEQ lists in their draft air permit for ACP.
 - 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 from 35 households in our study who responded to this pre-existing health conditions question.

3. The Air Pollution Control Board must consider that so far at the local and state level no “site suitability” study and accurate report has been placed in the public record by Dominion for Union Hill CS 2 compressor station. At every phase of the application process, Dominion has been allowed by Buckingham Board of Supervisors, by FERC, and DEQ to perpetuate the myth that BCS is a “sparsely populated” place when it serves them:

- i. to compressor stations 200 miles apart, non-industry standard;
- ii. to have shut off valve distances at 15.7 miles apart at this site, which is not Pipeline Hazard and Safety Administration Agency standards for this population size;
- iii. to allow highest PSIS of pressure at this site;
- iv. to locate the intersection of the existing 4-pipeline Transco corridor with the new ACP pipeline in the middle of a huge wetlands;
- v. where 100% of the drinking water is from that shard aquifer, through individual water wells;
- vi. where A1 agricultural zoning was exempted for heavy toxic polluting new industrials complex;
- vii. where there is no industrial use, yet claimed to be so when ACP and FERC noted “visibility issues” with this complex;
- viii. where there is scarce internet access, yet ACP will build a 125ft. wifi tower and not grant community requests for access to wifi as the only community benefit;

Most egregiously, ACP’s application, the local Board of Supervisors, and DEQ have allowed Dominion to:

- ❖ Erases impacts on a minority community, and its particular and now rare in Virginia historic Freedmen community still living where their ancestors were enslaved;
- ❖ Erased that history in its cultural resource report, **only filed after Advisory Council on Historic Preservation (ACHP) wrote a rare comment of concern** about that complete omission to FERC;
- ❖ Erases need for closer study of the health impacts on this minority community which FERC in its ACP FEIS states would be concerned if BCS were a majority African American community. “ But, FERC stated it is not, using ACP’s census data not the expert data submitted by Dr. Fjord and SELC on actual population;
- ❖ 29.6 persons per square mile allow Dominion to have 75% thinner pipes and up to 500% longer shut off valve distances. For the BCS, FERC FEIS states valve distances are 15.6 miles apart vs. 2 miles for most populated areas. These benefits to the developer at the expense of impacted residents must not go on.

Site Suitability for the BCS, must now be the responsibility of the Air Control Board and the Governor because of the slave plantation legacy in Buckingham.

- ❖ The local Board of Supervisors accepted ACP flawed and incomplete information for the special use permit. Of 91 comments, 87 were against, 4 in favor; Board voted to approve.
- ❖ Deliberate erasure of Buckingham Slave history began in 1869 when vigilantes burnt the courthouse to destroy records of enslavement, fearing Buckingham’s 2:1 majority former slaves’ voting for restitution.
- ❖ In ACP process, African Americans who spoke out against the special use permit have faced reprisals.

DEQ Air and Renewable Energy Director, Mike Dowd, disagreed with FERC’s finding that if Union Hill were populous and a minority community it *would matter* to accepting ACP’s application for BCS site. At the Buckingham air permit public info session, Mr. Dowd stated that “population size” doesn’t matter because all emissions are below EPA standards in this draft air permit. DEQ staff reported having worked hard to research and insist on technology changes to fix this “only time DEQ failed an air permit by a developer,” according to Mr. Dowd.

We are all in this together. Yet this process is not inclusive, nor comprehensive. I ask you to consider where is your moral compass pointing? Please don’t hold Dominion’s hand, taking us all to the edge of extinction. Just say no to this permit, because you can,

because ethical, credible economics and science mandates that you do. Thank you for saving us from ourselves.

Heidi Dhivya Berthoud

Secretary Friends of Buckingham

info@friendsofbuckinghamva.org

<http://www.friendsofbuckinghamva.org/>

<https://www.facebook.com/ProtectBuckingham>

Cell 434 979 9732