



To: Eric Dahl, County Administrator
Fluvanna County, Virginia

From: David Paylor, Vice President of Environment

Date: December 9, 2025

Project No.: 0103-25-0316

Subject: Potential Tenaska Natural Gas Power Generating Facility

A handwritten signature in blue ink that reads "David Paylor".

I've been asked to give a general overview of the processes the Department of Environmental Quality (DEQ) uses to evaluate applications, ensuring that the public is protected and natural resources are fully preserved for air quality, water quality, and water supply.

Let me start by outlining the public health basis that underlies air quality permits in Virginia. The Environmental Protection Agency (EPA) establishes National Ambient Air Quality Standards (NAAQS). These standards are pollutant air concentrations that will be protective of sensitive members of the public, with ambient air concentrations well below the associated standards. This provides for the conservative protection of citizens with a margin of safety and leaves room, wherever possible, for future business operations. NAAQS are established for six criteria pollutants: ozone, nitrogen oxides, and particulates (which can be significant contributors to asthma in some concentrations), as well as sulfur dioxide, carbon monoxide, and lead. The epidemiological data are reviewed every five years by a Science Advisory Committee comprising academics and health professionals to update NAAQS as necessary to continue protecting the public. Over the years, the EPA has tightened standards to ensure they are protective of even the most sensitive members of the public. EPA also establishes standards for a wide range of Hazardous Air Pollutants (HAPS), which are potentially toxic substances with the same goal and using a similar process.

DEQ conducts consistent monitoring and modelling of ambient air quality throughout the state, and Virginia currently complies with all NAAQS. This has represented a steady increase in regulatory emissions requirements over the last 30 years, along with tightening air quality standards, providing considerable improvement.

DEQ air regulations are designed to ensure that existing and proposed stationary sources of air emissions operate in a way that keeps air quality below the Air Quality Standards. In areas of the state where ambient air concentrations are closer to the NAAQS, smaller proposed emissions levels may require closer inspection, additional restrictions, and a robust permit issuance process. Again, the programs are structured to keep ambient air concentrations in a range that is fully protective of sensitive members of the public. Modelling to evaluate impact includes other existing sources to ensure that potential cumulative impact is assessed and concentrations are evaluated to be at or

MEMORANDUM

December 9, 2025

Page 2

below standards at the property fence line. Modelling assumes maximum generation at all times to ensure that the projections are conservative. Best Available Control Technologies (BACT) and other pollution reduction technologies are required at the outset, irrespective of modelling results, often resulting in concentrations lower than modelling might suggest. In addition, once a permit is issued, it will include testing and reporting requirements to DEQ, and the agency will routinely inspect to ensure compliance.

In summary, my experience is that national and state regulatory programs can be trusted to protect the public from ambient air quality concerns in Virginia. The fact that Virginia now meets the NAAQS is testimony to that fact. Virginia hasn't always, and has had to make significant progress in some parts of the state, principally related to cars and trucks rather than stationary, permitted sources. That is not to say that there aren't some localized air quality issues that can crop up, but in general, DEQ's regulatory process has shown that it can be relied upon to protect the public from air quality concerns.

Likewise, regarding water quality requirements for discharges to state streams and rivers, the EPA has several research laboratories around the country that determine which contaminant concentrations will be fully protective of aquatic vertebrates and invertebrates. These laboratories conduct experiments on a wide variety of organisms, even the most sensitive, by exposing them to a range of concentrations of a vast array of chemicals in use today. These tests determine concentrations of those chemicals that will not affect survival, growth, or reproduction. Based on these results, and adding a significant safety factor, the EPA develops Water Quality Standards and Criteria that will allow aquatic life to thrive in a stream.

Permits for water discharges to state waters in Virginia (Virginia Pollutant Discharge Elimination System – VPDES permits) are based on these standards and criteria developed by EPA. The permits include discharge limits for oxygen-depleting compounds (Biological Oxygen Demand), pH, suspended and dissolved solids, and any potential toxic substances. Permits will establish maximum concentrations of these potential substances in the water discharge stream itself that will ensure that standards and criteria are met in the receiving stream. Routine testing of effluent discharges is required to confirm compliance with all requirements, and these test results are submitted to DEQ regularly. DEQ reviews those results, and exceedances will result in agency follow-up, including potential enforcement and corrective action. Beyond that, routine site inspections are part of DEQ's compliance program to ensure that all conditions are being met.

Regarding surface water withdrawals from non-tidal streams and rivers, DEQ requires a permit for any consumptive withdrawal that exceeds 10,000 gallons on any day during a month. The agency has data on existing withdrawals upstream and downstream of the proposal. This includes permitted and grandfathered withdrawals and is generally based on the maximum possible withdrawal at each location. This allows an assessment of the volume of water passing through the site, accounting for hydrologic variation with weather conditions. DEQ will also establish the minimum water flow required at all times to support the existing aquatic life in the stream. Finally, any permitted water withdrawal will be aimed at conserving water for future downstream withdrawal needs.

MEMORANDUM

December 9, 2025

Page 3

Once an air or water permit is drafted based on the received application, the draft will be available to the public for review and comment for at least 30 days. Comments from the public will be evaluated to determine whether changes to the permit are warranted. Additionally, a public hearing can be requested, and if there is public concern, the agency will generally hold one. The Director or designee will then be briefed on all comments, both written and oral, to make final decisions about the content of the permit and its potential issuance.

Tenaska has an operating generation facility in Scottsville, and I was asked to review the facility's operating compliance to date. As mentioned above, water discharge reports are submitted to DEQ routinely, and DEQ tells me there have been no Notices of Violation required within the last 5 years, which is their most readily available information. The agency also conducts air compliance inspections to determine the compliance of facility operations. Inspections were conducted in June 2023 and July 2025, and both found the facility in compliance with all air requirements.