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MEMORANDUM

To: Mark Personius
From: Mark Buford, NWCAA and Simi Jain, Carmichael Clark, P.S.
Date: September 25, 2019
Re: RES 2019-037

The purpose of this memorandum is to provide your department with the Northwest Clean Air Agency's (NWCAA or Agency) initial questions and comments on the regulations proposed with Resolution 2019-037. We also thought it would be helpful to provide you with a brief summary of how our Agency implements the federal and WA Clean Air Acts (42 U.S.C. § 7401 and RCW 70.94) as they relate to greenhouse gas emissions and other air emissions. The Agency looks forward to your up-coming regulatory adoption process and learning more about how it may be of assistance.

A. Regulation of GHG Emissions

The NWCAA is a regional air pollution control authority, responsible under the Washington Clean Air Act (Act) for enforcing air quality regulations primarily at *stationary* sources of air pollution and air contaminants within Whatcom, Skagit and Island Counties. RCW 70.94.141. Greenhouse gas (GHG) emissions are considered an air contaminant under the Act. RCW 70.94.151. GHGs are also air pollutants under federal Clean Air Act. *Massachusetts v. EPA*, 549 U.S. 497 (2019).

1. Permitting authority.

Currently, the Washington Department of Ecology (Ecology) regulates GHG emissions through their permit authority for new or modified sources. Ecology regulates GHG emissions when a project triggers the requirement for a Prevention of Significant Deterioration permit for another regulated air pollutant and the GHG emissions exceed 75K tons per year. WAC 173-400-110(5)(b). In such instances, Ecology establishes the Best Available Control Technology (BACT) for the GHG emissions.

Historically, if the amount of GHG emissions have been between 75K tons and 25K tons per year, NWCAA has required mitigation for GHG emissions relying on its SEPA authority – implemented and enforced through a NWCAA issued permit. If the amount of GHG emissions is less than 25K tons, the NWCAA has not historically required mitigation under its SEPA authority.

An example of NWCAA's exercise of its permitting authority over GHG emissions is the Linde LLC hydrogen plant in Skagit County. This plant is located next to Shell Puget Sound Refinery. Linde sought to install hydrogen plant for use by the refinery. NWCAA conducted new source review. After consultation with NWCAA, Skagit County issued a SEPA MDNS requiring GHG mitigation per NWCAA's recommendation and based on former Ecology SEPA guidance. Linde was required to

comply with NWCAA requirements and to mitigate 60K metric tons/year of GHG emissions as a condition of the permit that NWCAA then issued. As allowed by the GHG requirement, Linde paid NWCAA a one-time fee in lieu of mitigation, with NWCAA using those funds toward GHG mitigation.

2. Rulemaking authority.

Ecology and NWCAA may also regulate GHG emissions through their rulemaking authority. Certain stationary sources are already subject to regulation of greenhouse gas emissions under RCW 70.235.010. These sources are required to report greenhouse gas emissions to Ecology when the emissions exceed 10K metric tons of carbon dioxide equivalent annually. RCW 70.94.151(5). Other GHG rules have also been adopted by Ecology such as WAC 173-441 and 173-442. These rules establish emission standards for particular sources of GHG emissions.

NWCAA also conducted the technical analysis and worked with Ecology to issue a state greenhouse rule, WAC 173-485. This rule applies to existing petroleum refineries. This rule establishes reasonable available control technology (RACT) for these refineries and imposes a minimum energy efficiency standard.

3. Other authority.

Ecology and regional air pollution control agencies such as NWCAA also have the authority under the Act to “Issue such orders as may be necessary to effectuate the purposes of this chapter”. RCW 70.94.141. As such, NWCAA may condition its approvals or issue stand-alone orders when necessary to effectuate the purposes of the Act. However, it has not yet issued such a stand-alone order for GHGs.

In sum, the current air regulatory regime is highly complex and evolving. NWCAA looks at air projects holistically before making determinations on whether to require conditions based on the GHG emissions for a project.

B. SEPA Process

1. Worksheet.

The County proposes a new climate impact worksheet which seeks to garner information from the applicant pertaining to the significant adverse environmental impacts from fossil and renewable fuel facilities. (WCC 16.08.090 (E)). If consulted and assuming funding is arranged, NWCAA could provide assistance to the County to interpret the information requested. That said, NWCAA believes there would need to be a significant amount of policy work and guidance material provided to project proponents to clarify the details of what is required. Without that guidance and policy work, NWCAA believes there would be inconsistency in the submittals from different proponents and among different projects. There would also likely be a significant amount of back and forth with the proponent asking for more or different analysis.

The County also proposes certain emissions that should be analyzed in the worksheet. The meaning and intent of these emissions is not easily understood. For instance, “windborne transport of fossil or renewable fuel emissions” could capture many different air pollutants. The County should consider defining which pollutants this regulation captures as several air

pollutants already have established federal and state standards which must be satisfied. Also, it's possible that some projects which emit these air pollutants could trigger permits from Ecology and/or NWCAA and possibly GHG mitigation under the current regulatory regime under the Act. Currently, NWCAA reviews the emissions of over 400 different air contaminants during permitting (a smaller subset of which are emitted by any single project).

Another listed emission is "lifecycle greenhouse gas emissions and facility emissions." The County should consider how applicants might provide sufficient information for the County to review when some of NWCAA sources process crude oil from different countries and states, and are generally not limited on the amount they can use from any single location. Different crude oils result in different amounts of processing, which then results in a different emissions profile. This can vary from year to year and sometimes month to month.

2. SEPA Threshold Determination and Substantive Authority.

NWCAA is accustomed to SEPA threshold determinations made prior to issuance of permits, land use or other otherwise. WCC 16.08.160(E) and 16.08.160(F)(1)(a),(c). The NWCAA issues air permits after SEPA threshold determinations are made by the lead agency. The County's proposed regulations allow for mitigation under SEPA before NWCAA (or Ecology) issues its air permits. It's unclear how the County would identify or fill a perceived gap in permitting prior to the issuance of a permit. NWCAA is amenable to whatever pre-permit-issuance communications with the County that may be helpful to accomplish formulating proper conditions.

Finally, the County proposes analyzing potential GHG emissions using very specific models. See, WCC 16.08.160(F)(1)(b)(i). The NWCAA does not have experience with the required models and cannot confirm that they are appropriate for the purpose required.

3. NWCAA assistance.

The NWCAA has questions and concerns regarding the proposed SEPA process. We offer our assistance in reviewing technical information submitted about GHGs with the caveat that the County will need to provide a substantial body of clarification to both the proponent(s) and staff conducting an analysis of submittals.

C. Land Use Permitting Process

1. CUP criteria and GHG mitigation.

The County is proposing that one criterion for CUP approval is, "Minimization of greenhouse gas emissions and inclusion local carbon offset mitigation projects." The County also sets out how applicants should establish GHG emissions and possible methods for mitigation. WCC 20.68.801. It's not clear whether the County is relying on its SEPA authority or some other authority for these requirements.

The NWCAA questions whether the mitigation required is actually possible to achieve locally. If the County's mitigation is required under SEPA, it's unclear whether such conditions are reasonable and capable of being accomplished. GHG emissions are a global concern, and there may be more cost-effective mitigation projects outside of Whatcom County. There are also

existing GHG credit markets that could provide an alternative mitigation strategy. It may be useful to consider other strategies beyond mitigation projects locally.

The NWCAA recognizes that currently there is no de minimus threshold for when the County will require local mitigation. So, it's unclear whether even 1 pound of increase in GHG emissions triggers an analysis. Technically, it may be difficult to calculate whether emissions increased by a pound or two from the baseline because of the "noise" in emission factors and process data from facilities. GHGs are generally counted in tons of emissions. For instance in 2017, one of NWCAA's County sources reported emitting 2.1 million tons of CO₂, another source reported 1.1 million tons of CO₂, and yet another source reported 750,000 tons of CO₂. Given the large scope of these numbers, it could be helpful to establish a de minimus threshold in tons of GHG emitted.

NWCAA thought it might be helpful to provide a sense of the magnitude of what \$60/ton of GHGs would mean for a larger refinery project. For this, we chose BP's new 496 MMBtu/hr hydrogen plant, which was permitted in 2010. The hydrogen plant burns natural gas and produces hydrogen for refinery operation. At full utilization, BP estimated GHG emissions at 438,537 tons/yr CO₂e. Using the \$60/ton threshold, that would work out to \$26,312,000 per year. Per the draft code, this fee would be collected annually for the life of the equipment. Again, if the County's authority for such a fee is SEPA, it's not clear whether all of the funds can be used to combat the identified impacts being addressed through collection of fees.

Another example NWCAA has from experience with mitigation fees is that in 2012, NWCAA received a one-time payment of \$4,000,000 in GHG mitigation fees for the above-mentioned BP hydrogen plant project. We have been working to find sufficient mitigation projects in our 3-county jurisdictional area since receiving the \$4,000,000 payment and have found it difficult to find projects with significant GHG offsets. We still have \$500,000 of the total mitigation fee and are continuing to search for projects. This experience is one of the reasons why we suggest considering GHG mitigation projects outside of the County. Two perhaps important differences between what the County is proposing and NWCAA's mitigation efforts are that NWCAA invited proposals for GHG mitigation from the community, and the County would have a significantly larger amount of funding available. It is conceivable that the greater funding would result in more options for mitigation. We are curious whether the County identified any projects that would use the potentially available funding and provide the required mitigation.

2. Exemptions.

The County proposes to exempt certain projects from CUP permitting but, still possibly require GHG mitigation. WCC 20.68.802(2). The term "Regular equipment maintenance" is not a term that is well understood in the air regulatory regime. NWCAA has direct experience with litigation over the terms "routine maintenance and repair" and the definition of "replacement."¹ These are terms used in both the Act and the federal Clean Air Act. Also, the Environmental Protection Agency (EPA) has provided a number of documents which help to define what

¹ The WA Court of Appeals, Div I, recently issued a decision that sheds light on the definition of "replacement". See *Brooks Manufacturing Co. v. NWCAA*, case no. 79645-3-1 (09/16/19).

qualities as routine, <https://www.epa.gov/nsr/assistance-determining-routine-maintenance-repair-or-replacement>.

It may also be helpful to define what constitutes a safety upgrade and environmental improvements. In NWCAA's experience, facilities frequently do projects for a variety of reasons. For example, a facility may replace a piece of equipment that's at the end of its life and cannot continue to operate safely. At the same time, the facility may decide to change the design of the replacement equipment to increase processing speed or capacity. In addition, the same project may include new parts, such as heater burners, that emit less air pollution per barrel of oil processed. It's unclear whether this project would qualify for an exemption.

D. Suggested Amendments to the proposed regulations

Under RCW 70.94.230, regulations of GHG adopted by NWCAA under the WA Clean Air Act shall supersede the County's regulation of GHG emissions. Further, NWCAA may permit an air project and require mitigation for GHG emissions. As such, the following regulations could be amended to reflect address any unintended overlap between the County and NWCAA. We have underlined our proposed additions and stricken our deletions to the version of the proposed regulations being presented to the Planning Commission on 09/26/19:

WCC 16.08.160(F)(1)(a)

F. Specific Environmental Policies

1. Air Quality and Climate:

a. Air pollution can be damaging to human health, plants and animals, visibility, aesthetics, and the overall quality of life. Mitigation of criteria pollutant, hazardous air pollutant and toxic air pollutant impacts will normally be the subject of air permits required by the Northwest Clean Air Agency (NWCAA) and/or State Department of Ecology (DOE) and no further mitigation by the County shall be required. However, where a project being reviewed by the County generates public nuisance impacts, or odors or greenhouse gas emissions impacts not addressed through the regulations or approvals of NWCAA or DOE, the County may require mitigation under SEPA.

WCC 16.08.160(F)(1)(c):

c. It is the County's policy to minimize or prevent adverse air quality impacts. Federal, state, regional, and county regulations and programs cannot always anticipate or adequately mitigate adverse air quality impacts. If the ~~decision-maker~~ SEPA Responsible Official makes a written finding that the applicable federal, state, regional, and/or County regulations or approvals ~~do~~ will not anticipate or are inadequate to address the particular impact(s) of the project, the ~~decision-maker~~ SEPA Responsible Official may condition the proposal to mitigate its adverse impacts or, if impacts cannot be mitigated, may deny a project under the provisions of the State Environmental Policy Act.

WCC 20.68.801(3):

(3) Local mitigation of greenhouse gas emissions shall be required, whenever calculated greenhouse gas emissions increase above the baseline for a 3-year average (per section .801(2)(a)), after the effective date of this section [XXX].

...

(c) Should a national or state or regional greenhouse gas ~~mitigation requirement~~ regulation be adopted that pre-empts or would cause duplication ~~through~~ of local greenhouse gas mitigation, the County shall defer to the national or state or regional ~~program~~ regulation.

E. Conclusion

NWCAA is looking forward to the evolution of the County's proposed regulations in the coming months. We are committed to providing what technical expertise we have when possible and when the County would find it useful. If we can provide further assistance in this process, please contact us.