

## **METRO VANCOUVER EVALUATION**

### **(1) Metro Vancouver's evaluation of the Centerm Expansion Air Quality Assessment issued by the Port**

(1a) Outstanding flaws/deficiencies/problems in the air quality reports put together by the Port

- The project considered the Port's Expansion Project footprint only, but failed to account for supply chain emissions related to the project (e.g. increased ship traffic) which will create a cumulative effect and will further impact air quality. This also includes the port-associated truck traffic on the Clark/Knight corridor South of Hastings which was not included in the Port's assessment.
- Air quality values impacted by the Centerm Expansion are predicted to exceed NO<sub>2</sub> Canadian Ambient Air Quality Standards (CAAQS), which come into force in 2020, but have not been considered in the assessment.
- Rationales for the choice of emission scenarios, emission parameters and modelling methodology were missing from the report. Details on emission sources were also missing. Erroneous methods for calculating the baseline air quality data and frequency of exceedances were used, resulting in misrepresented results. Baseline concentrations for PM<sub>2.5</sub> and NO<sub>2</sub> were omitted and incorrectly stated, respectively.
- The surface meteorological stations closest to the Centerm Port were not chosen for the air quality modelling studies and the American National Climate Data Center was used as a referenced data source rather than utilizing data generated by Metro Vancouver, which are more representative of the local meteorology.
- The land use data utilized in the Port's air quality models did not accurately account for the proximity of residents, businesses, schools and a new hospital (to be built 2022-2023) to the Port.
- The Port's report falsely stated that poor air quality is a reversible effect. It fundamentally fails to understand that while ambient concentration can be changed through mitigation measures, the impacts of poor air quality on human and environmental receptors are generally not reversible even after mitigation.
- The Traffic Impact Study assumed 0% growth in background municipal traffic in the coming years, while Metro Vancouver and the City of Vancouver anticipate an increase in residential population and employment by 46% in the area of interest by 2030. Additional congestion and impacts on local air quality are anticipated by the growth of population and employment in the surrounding region, impacting travel to and through the area of study.

(1b) Exceedances that need to be addressed by the Port.

- The Centerm Expansion Project is predicted to significantly exceed Metro Vancouver's air quality objectives for both annual and 1-hour nitrogen dioxide (NO<sub>2</sub>), as well as 24-hour fine particulate matter (PM<sub>2.5</sub>) and the NO<sub>2</sub> Canadian Ambient Air Quality Standards (CAAQS).

(1c) Recommendation for use of Best Available Technology to reduce emission of NO<sub>2</sub> and PM<sub>2.5</sub> by the Port and its supply chain sources.

- Electrify yard trucks and terminal support vehicles
- Hybridize the existing rubber-tyred gantry crane fleet through retrofitting
- Introduce full shore power to both berths

As for (2), I was not able to find any references to an air quality management plan in VFPA's CEP Environmental Air Assessment from February, however there was mention of that in the Project and Environmental Review Report from April 18th (see below for (3)). There was also no reference to any permit conditions I could find - these were also only in the Project and Environmental Review Report (see below for (3)). In regards to exceedances, please see (1b). As for conclusions related to air quality and emissions in VFPA's CEP Environmental Assessment:

## **(2) Conclusions related to Air Quality/Emissions stated in Vancouver Fraser Port Authority's Environmental Air Assessment**

- The Centerm Expansion Project will result in an overall increase in annual emissions, compared to the Baseline Case.
  - Increases in both Facility Emissions and Supply Chain Emissions are the result of increased volume of container movement.
  - Increases in Facility Emissions attributed to equipment are the result of increased use of existing equipment and the addition of new Terminal Support Vehicles and Full Container Handlers.

In regards to **(3) mitigation measures for addressing air emissions**, the VFPA's Project and Environmental Review Report from April 18th failed to address the majority of concerns raised by Metro Vancouver (e.g. cumulative air quality impacts), claiming that mitigation strategies and permits are "not required". The rationales listed are oftentimes not logical, avoidant and listed as out of scope. A few of the mitigation measures offered by the VFPA in response to Metro Vancouver's concerns about air quality are listed below:

- Metro Vancouver Concern: Air quality – ongoing operations and mitigations.
  - VFPA's Mitigations and Permit Conditions: Permit condition No. 79 requires the permit holder to submit an Air Emissions Management Plan within 180 days of permit issuance.
  - Rationale: Project design and scope includes elements which limit the growth of air emissions, such as replacement of diesel powered gantries with electrically operated units. It is also understood and generally expected that emissions will increase when terminal throughput rises, all other factors remaining equal.
- Metro Vancouver Concern: Air quality - Diesel particulate matter
  - VFPA's Mitigations and Permit Conditions: Permit condition No. 79 requires the permit holder to provide an Air Emissions Management Plan (AEMP).
  - Rationale: The results of the revised Environmental Air Assessment indicated that emissions from the terminal would increase. An AEMP allows VFPA to ensure that overall site emissions, largely resulting from mobile combustion engines operating at the terminal, are managed.

