

Semiahmoo RNG GP Corp. AQ Application

Frequently Asked Questions on Metro Vancouver's Air Quality Regulatory Processes

Metro Vancouver Environmental Regulation & Enforcement has received numerous questions and comments during the public notification phase of the Semiahmoo RNG GP Corp. air quality permit application review process.

Some of these questions are specifically about the details of the project and application, whereas some are about Metro Vancouver's air quality regulatory processes. Others are on topics and concerns outside of Metro Vancouver's jurisdiction to regulate air contaminants.

All comments are forwarded to the applicant so they have an opportunity to respond. If the applicant chooses to respond, their response and the comment are provided to the decision maker (District Director) for consideration prior to making a decision on permit issuance.

This FAQ does not include responses to questions about the proposed project. Responding to those questions is the responsibility of the applicant.

We have responded to the most frequently asked questions about Metro Vancouver's air quality permitting and regulatory process and have identified what concerns or questions are outside our jurisdiction. For an overview, of Metro Vancouver's air quality permitting process, see the November 9th presentation by the District Director available [here](#).

PART 1 Metro Vancouver's Regulatory Processes

PART 2 Concerns outside Metro Vancouver Jurisdiction



Metro Vancouver's Regulatory Processes

1. Why has the local community only just found out about this proposed facility and been given a relatively short time frame to comment on it?

- a. Metro Vancouver received a draft air quality application on January 11, 2021. A final application was received June 29, 2023. The public comment period, as required under the BC Public Notification Regulation, cannot commence until we have a final application. The public comment period must be at least 30 days and is typically much longer as the statutory decision maker (the District Director) can consider comments from concerned persons until they make a decision on permit issuance.

2. Who will be the regulator?

- a. Metro Vancouver, Semiahmoo First Nation, Indigenous Services Canada (ISC), and Natural Resources Canada (NRCan) are engaged in ongoing discussions to ensure an appropriate framework for environmental and regulatory oversight for the project.

3. During the webinar, there was a large change in direction from the submitted application in that the Semiahmoo First Nation fully intends to run this facility themselves once built, not Andion. How would Metro Vancouver be able to regulate the plant when it is no longer clear who would be operating this industrial facility?

- a. The application for a Metro Vancouver air quality permit was submitted by Semiahmoo RNG GP Corp. Our understanding is that Semiahmoo RNG GP Corp. is a partnership between Semiahmoo First Nation and Andion Global. As part of the application package, we have received the Certificate of Incorporation for Semiahmoo RNG GP Corp. as well as the BC Registry Services BC Company Summary for

Semiahmoo RNG GP Corp., which contains the names and contact information for the directors of that company. If a permit is issued, it will be issued to Semiahmoo RNG GP Corp. and both the company and its directors will be held responsible for compliance with the permit.

4. Metro Vancouver has a conflict of interest because they are supplying the material for this proposed facility. How can they also be the regulator of the facility?

- a. Metro Vancouver's Environmental Regulation and Enforcement Division is a separate and independent group from the Metro Vancouver Solid Waste Department, which is responsible for solid waste planning in the region. Decisions made by the District Director are independent of the rest of the organization and the Metro Vancouver Board.

5. Will there be provisions in the permit to protect the environment?

- a. Staff will make recommendations and draft an air quality permit for consideration by the District Director that is considered advisable for the protection of the environment as it relates to the discharge of air contaminants.

6. Does protection of the environment include things like:

- cutting down hectares of untouched old growth land for the facility just to break ground
 - what will happen to the dispersed animals that live on SFN land?
- a. Our jurisdiction is limited to the discharge of air contaminants, so the number of trees that are cut down is not something the District Director can consider but they can consider the potential effect of air emissions on trees and animals.

7. If the facility is built and permitted, how does Metro Vancouver staff respond to complaints?

- a. Our complaint handling process is described [here](#).

8. How can this permit be enforced? Is there any legal mechanism to force Semiahmoo First Nation to comply with emission standards once the plant is built?

- a. Promotion of compliance with air quality permits is risk based and focused on outcomes. Metro Vancouver staff use discretion in selection of an appropriate compliance promotion tool, from administrative actions to notices of bylaw violations (NBVs), municipal ticket information (MTIs), to full prosecution. Staff will consider:
 - i. How strong is the need to send a message of deterrence?
 - ii. How strong is the likelihood of conviction?
 - iii. Does the compliance promotion or enforcement action serve the public interest?

The maximum penalty for an NBV is \$500 per infraction. The maximum fine for an MTI is \$1000 per offence. Prosecutions carry penalties as outlined under the Environmental Management Act (up to \$1,000,000).

9. What level of breach would force the closure of the facility?

The Metro Vancouver Air Quality Management Bylaw 1082, 2008 ('the Bylaw', available [here](#)) states in Section 10 that "notwithstanding any other provision in this Bylaw no person may discharge or allow or cause the discharge of any air contaminant so as to cause pollution." This means that despite holding an air quality permit, pollution, as defined in the Bylaw ("the presence in the environment of substances or contaminants that substantially alter or impair the usefulness of the environment"), is prohibited. Were a company to be determined to be causing pollution, Metro Vancouver staff would take appropriate enforcement action.

10. Does Metro Vancouver have a monitoring system to measure air contaminants from the facility? Will the company be required to monitor their emissions?

- a. Metro Vancouver regularly includes requirements for monitoring in air quality permits. We do not monitor emissions from specific facilities, but do have an extensive ambient monitoring network to assess regional air quality. More information is available [here](#).
- b. Monitoring at a permitted facility is typically completed by acceptable, independent, 3rd-party consultants or by monitoring equipment installed, maintained, and operated by the permit holder in accordance with monitoring plans accepted by Metro Vancouver.
- c. Metro Vancouver staff audit stack testing conducted by 3rd-party consultants at permitted facilities to ensure the methodologies are acceptable and performed correctly and confirm plant operations are representative during the testing.

11. Is there a protocol in place to cease plant operations should the emissions exceed established safety thresholds?

- a. The draft permit will contain requirements for submission of reports and plans for approval on a range of considerations, including standard operating procedures. See also the response to question #4 regarding compliance promotion and enforcement of air quality permits.

12. Why doesn't the Surrey Biofuel facility have a permit with Metro Vancouver?

- a. Metro Vancouver Air Quality Management Bylaw 1082, 2008 includes an exemption from permitting under the bylaw for discharges from solid or liquid waste management activities or works owned or operated by a regional district or municipality (i.e. the City of Surrey) that are in compliance with a waste management plan under the Environmental Management Act. This exemption applies to the Surrey Biofuel facility.



13. The dispersion modelling study completed by Tetra Tech is not an independent study because they were paid by Andion. Will Metro Vancouver complete its own study?

- a. Metro Vancouver requires that applicants hire Qualified Professionals* to conduct dispersion modelling. Metro Vancouver also has a rigorous review process for dispersion modelling studies. The first step in the process is for the Qualified Professional to submit a detailed (30 pages in this case) dispersion model plan for review, comment and approval by Metro Vancouver staff who have years of experience running and analyzing the results of dispersion models. The second step is for the Qualified Professional to conduct the dispersion modelling in accordance with the approved model plan as well as the [British Columbia Air Quality Dispersion Modelling Guideline](#). Metro Vancouver staff review the draft report as well as model input and output files and provide detailed comments for the Qualified Professional to address prior to finalizing the report. This process takes several months to complete. The Metro Vancouver staff involved in the review of the dispersion modelling study for the Semiahmoo RNG project are of the opinion that having a different consulting firm redo the modelling would not result in materially different predicted concentrations.

**Qualified Professional, in relation to a duty or function under MVRD and GVS&DD bylaws, means an individual who*

- a) *is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and*
- b) *through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.*

Submission of both Declaration of Competency and Conflict of Interest Disclosure Statement forms (available [here](#), pages 33 and 35) is required with all air quality applications for which a QP provides services.

14. Tetra Tech's own report (Section 4.2 Geophysical Grid) identifies discrepancies in the resolution of the terrain data. Are pollutant impacts located at the treetops; within the elevation 'gaps'; or are the impacts on the tidewater or nearby wetlands?

- a. The discrepancies referred to in the first paragraph of Section 4.2 are addressed in the rest of Section 4.2. Tetra Tech used other datasets, precisely to try and minimize the errors associated with terrain data around country borders. Because of the site's proximity to the Canada/US border, it is expected that some data merging will need to occur, this has been done in past assessments that have included modelled domains extending into the US. This methodology was reviewed and accepted by Metro Vancouver staff. It is also important to note this terrain data was used for the geophysical grid for the CALMET meteorological pre-processor, not the receptor grid used in CALPUFF for predicting air contaminant concentrations.
- b. Ambient air contaminant concentrations were predicted at 1.5 m above ground level for fence line and sensitive receptors. They were not predicted at tree-tops. Metro Vancouver checked the ground elevation of the CALPUFF receptors against BC topographic maps and they appear to match the expected ground elevation and there were no elevation 'gaps'.
- c. Metro Vancouver staff requested that Tetra Tech generate two geophysical grids, one for high tide and one for low tide given the large wetland area that is exposed during low tides near White Rock.

15. If Tetra Tech’s air dispersion models are wrong, could our White Rock waterfront tourist business be ruined forever?

- a. If a permit is issued, it will contain limits on the discharge of air contaminants and requirements for works and procedures, monitoring and reporting that the District Director considers to be advisable for the protection of the environment. While dispersion modelling results inform the requirements in a permit, they do not form part of the permit. If it becomes necessary for the protection of the environment, the District Director can amend a permit to reduce emission limits, require additional control works or any other requirement that could have been included in the permit when it was first issued.

16. Nuisance/noxious odors have a cumulative effect. The dispersion modelling report dissects and evaluates all the various odor compounds but does not combine the 23 sulfur-based compounds emitted by this facility, as one.

- a. The cumulative effect of numerous potential odorous air contaminants was assessed by modelling total odour as per Metro Vancouver’s requirements and the approved model plan. See Section 5.2.7 of the Tetra Tech report.

17. Unpredictable Feedstock: waste feedstock changes in concentration, liquid content, chemical & seasonal content, temperature of feed material, feed rate, degree of decomposition. While Tetra Tech’s report claims a “worse case” scenario, there are too many variations in the feedstock to claim all worst case models were evaluated.

- a. Metro Vancouver requires that applicants model the air contaminant emission levels that they have requested be authorized in their air permit application. If a permit is issued, the air contaminant emission limits will be equal to or less than submitted in the application, which was the basis of the dispersion modelling. If the feedstock results in higher emissions than permitted, the facility will be out of compliance with their permit.

18. How does this facility compare to other similar facilities?

Facility Name	Semiahmoo RNG	Seabreeze	Delta RNG	Fraser Valley Biogas	Surrey Biofuel	Dicklands Biogas Plant
MV Air Permit No.	TBD	GVA1194	GVA1181	n/a	n/a	n/a
Municipality	Surrey	Delta	Delta	Abbotsford	Surrey	Chilliwack
Facility type	Biofuel from Municipal Solid Waste (MSW)	Biofuel from MSW and Farm Waste	Landfill Gas Processing	Biofuel from MSW and Farm Waste	Biofuel from MSW	Biofuel from MSW and Farm Waste
Organic material processed (tonnes/year)	70,000	31,500	n/a	100,000	115,393	82,353
Nearest residence (km)	0.4	0.2	0.3	0.1	0.7	0.2
Nearest school (km)	1.1	2.8	2.0	5.2	1.9	1.1
Nearest healthcare facility (km)	3.2	6.3	4.4	12.2	5.6	8.0
Volatile Organic Compounds (tonnes/year)	0.8	0.7	-	102.7	No info readily available to MV/public	n/a
Ammonia (tonnes/year)	0.4	0.001	0.02	n/a		1.8
Methane (tonnes/year)	35.8	10.9	0.7	7.5		n/a
Hydrogen Sulphide (tonnes/year)	0.1	0.03	-	0.4		1.3
Nitrogen Oxides (tonnes/year)	2.8	0.6	13.5	12.3		8.2
Sulphur Dioxide (tonnes/year)	0.5	0.2	35.9	18.6		0.7
Other contaminants (tonnes/year)	-	0.02	4.0	20.7		1.4
Total (tonnes/year)	40.4	12.5	54.1	162.2		13.4
Total without methane (tonnes/year)	4.6	1.6	53.4	154.7		13.4



19. How does this facility compare to other sources of emissions near White Rock/South Surrey?

Emissions (tonnes/year)	Semiahmoo RNG	Traffic at Peace Arch Border Crossing	Baird Cattle Co.	Dairy farm at 8 Ave and 184 St	Poultry farm near 16 Ave and 176 St	All livestock farms within 2 km of Semiahmoo RNG	All livestock farms within 5 km of Semiahmoo RNG
Volatile Organic Compounds	0.8	8.9	0.1	0.2	0.1	0.1 - 0.4	0.7 - 2.5
Ammonia	0.4	0.4	2.3	3.5	2.4	3 - 8	15 - 54
Methane	35.8	0.4	12.6	18.6	2.9	16 - 33	46 - 120
Hydrogen Sulphide	0.1	-	0.2	0.5	0.1	0.3 - 0.8	1.5 - 5.3
Nitrogen Oxides	2.8	11.1	-	-	-	-	-
Sulphur Dioxide	0.5	0.1	-	-	-	-	-
Total	40.4	20.9	15.2	22.8	5.5	19.4 - 42.2	63.2 - 181.8

20. What factors does the District Director consider in making their decision?

- a. The District Director can consider information relevant to the discharge of air contaminants that is provided by the applicant, concerned persons, government or private agencies, Metro Vancouver policies and staff opinions, and potentially by others. Examples of relevant information are the potential effect of the requested air contaminant discharges on ambient air quality, deposition of air contaminants to land and water, and greenhouse gas considerations. The District Director will also consider whether best available control technology has been proposed and whether the requested emission limits are reasonable. [The GVRD Air Quality Management Bylaw 1082, 2008](#) Section 11 (copied below) gives the District Director quite broad scope when it comes to permit requirements that they consider advisable for the protection of the environment. The District Director will consider recommendations from staff and comments from the various entities listed above on such requirements.

PERMITS AND APPROVALS

Permits

11 The district director may issue a permit to allow the discharge of an air contaminant subject to requirements for the protection of the environment that the district director considers

advisable and without limiting the generality of the foregoing the district director may do one or more of the following in the permit:

- (1) place limits and restrictions on the quantity, frequency and nature of an air contaminant permitted to be discharged and the term for which such discharge may occur;
- (2) require the holder of a permit to repair, alter, remove, improve or add to works or to construct new works and to submit plans and specifications for works specified in the permit;
- (3) require the holder of a permit to give security in the amount and form and subject to conditions the district director specifies;
- (4) require the holder of a permit to monitor, in the manner specified by the district director, an air contaminant, the method of discharging the air contaminant and the places and things that the district director considers will be affected by the discharge of the air contaminant;
- (5) require the holder of a permit to conduct studies, keep records and to report information specified by the district director in the manner specified by the district director;
- (6) specify procedures for sampling, monitoring and analyses, and procedures or requirements respecting the discharge of an air contaminant that the holder of a permit must fulfill.



21. Section 7(12) of Metro Vancouver Air Quality Management Bylaw 1082, 2008 contains a 5 kilogram per day limit that if exceeded means a permit cannot be granted. Semiahmoo RNG GP Corp.'s daily discharge requests are above these levels so their permit application will be denied, right?

- a. Section 7 of Bylaw 1082 begins with the statement, "Subject to section 10, nothing in section 5 or 6 prohibits the discharge of an air contaminant where ..." and then lists a number of exemptions to the requirement to obtain a permit. One of those exemptions, 7(12) contains daily discharge restrictions for nitrogen oxides, sulphur oxides, and carbon monoxide that, if not exceeded by an industry, trade, or business, mean the facility may not require an air quality permit with Metro Vancouver.

22. Section 7(12) of Metro Vancouver Air Quality Management Bylaw 1082, 2008 contains three air contaminants that are restricted (nitrogen oxides, sulphur oxides, and carbon monoxide). What about any other air contaminants?

- a. The exemptions noted in Section 7(12) are intended to exempt small combustion sources in the region (e.g., emissions from a small restaurant). Nitrogen dioxide, sulphur dioxide and carbon monoxide are sometimes referred to as "common air contaminants" as they are emitted by many sources in the region. Other air contaminants are not scoped in to the 7(12) exemption as MV prefers to review requests to discharge them on a case-by-case basis. Metro Vancouver air quality permits are site-specific and the air contaminants and their levels authorized to be discharged in a given permit will reflect the processes, works, and controls, at the given facility. The authorized restrictions must also be considered advisable for the protection of the environment.

23 Has an air quality permit been issued for this facility yet?

- a. As of the end of December 2023, a decision on issuance of an air permit has not been made. Please review the information at this [webpage](#) to find the current status of the application. An application status of "Notification Active" means a permit has not been issued. If a permit is issued, the status will be changed to "Permit Issued". In addition, any concerned person who has provided comment on the application will be notified by email if a decision is made on permit issuance.

24. The SFN / Andion RNG Plant air permit application lists 6 air contaminants which do not appear to be documented by MVRD Bylaw 1082. Could you please provide the AAQO limits and Regulating Bylaw/s for the remaining 4 air contaminants?

- a. Bylaw 1082 does not specify Metro Vancouver's ambient air quality objectives (AAQO). You can find Metro Vancouver's ambient air quality objectives on this page: [Ambient Air Quality Objectives – Metro Vancouver](#). When a company requests authorization to emit an air contaminant for which Metro Vancouver does not have an ambient air quality objective, Metro Vancouver staff review ambient air quality criteria from other jurisdictions (e.g., Alberta, Ontario, Texas, California) when assessing if it would be advisable for the protection of the environment for the District Director to authorize such an emission.



25. What authority does Metro Vancouver have to ensure that the facility is maintained and operated in accordance with an issued permit on an on-going basis? Does Metro Vancouver have the ability to revoke the permit?

- a. Metro Vancouver Officers conduct regular inspections of permitted facilities to ensure compliance with permit conditions. Permits may also require submission of reports that document standard operating and maintenance procedures. A permit may be cancelled or suspended on the District Director's initiative in limited circumstances set out in Section 21(3) (a), (f) and (g) of GVRD Air Quality Management Bylaw 1082, 2008 as amended. The tools available to Officers to enforce compliance with permits include Notice of Bylaw Violation, Municipal Ticket Information and long-form prosecution.

26. How often will discharges of air contaminants be monitored to ensure that over time the facility does not slowly begin to exceed the permitted discharge restrictions in an issued permit?

- a. Frequency of monitoring, such as stack testing, is typically annual but can be less frequent, such as every 2 or 3 years for some facilities.

27. Is a public meeting always held for air permit applications? When they do occur, does Metro Vancouver attend? What is Metro Vancouver's role at these public meetings?

- a. Public meetings are not held or required for all air quality permit applications submitted to Metro Vancouver. Metro Vancouver attends all public meetings that are held by an air quality permit applicant that they are invited to or that the District Director has required. Metro Vancouver provides information on the air quality permit application process at all public meetings held by an air quality permit applicant that they attend; the format of this information depends on the format of the meeting; it could be a presentation, a poster or responding to questions that are asked.

28. If I send questions to Metro Vancouver about this application, will I get a response?

- a. When actively processing a permit application, Metro Vancouver endeavours to respond to questions on its processes that are received from concerned persons through the public notification process for permit applications so that concerned persons can provide informed comment on the application. For the Semiahmoo RNG air permit application, over a thousand comments and questions have been received. To ensure consistent and timely responses, Metro Vancouver developed a list of frequently asked questions (FAQ) and responses. To be transparent, this FAQ was published on Metro Vancouver's website. Questions that are received while the application review process is paused will receive a response when the application review is resumed.

29. Are the potential long-term health effects of a facility's emissions a factor considered by Metro Vancouver?

- a. Metro Vancouver relies on our health agency partners in assessing the potential health impacts of an applicant's requests. The Fraser Health Authority and the First Nations Health Authority have reviewed the Semiahmoo RNG GP Corp. air quality application and both have provided comment to the District Director.

30. Natural Resources Canada (NRCan) recently announced that they have withdrawn their funding for the project. What does this mean to Metro Vancouver's processing of the air quality application?

- a. Semiahmoo RNG GP Corp has not withdrawn their air quality permit application for a food waste and organic feedstocks to renewable natural gas facility despite the recent decision by Natural Resources Canada to withdraw their funding for this project. How a project is funded is not something we consider when reviewing an air quality permit application.



Concerns outside Metro Vancouver Jurisdiction

Metro Vancouver Regional District (MVRD) has delegated authority from the province to manage and regulate air quality in the region.

Our main bylaw, [MVRD Air Quality Management Bylaw 1082, 2008](#), prohibits the discharge of air contaminants from an industry, trade or business unless the discharge is conducted strictly in accordance with the terms and conditions of a permit or emission regulation.

The MVRD Board appoints a District Director, who is authorized to issue air permits. The District Director can consider the potential for the requested air contaminant emissions to negatively affect the environment (air, land and water).

The District Director cannot consider matters outside Metro Vancouver's jurisdiction such as zoning, land use, noise, aesthetics, traffic, and social licence.

1. Why will Metro Vancouver be trucking their waste to this proposed facility?

- a. Solid waste management priorities are not something that the District Director can consider when issuing an air quality permit.

2. The border crossing is already very congested. Won't the additional truck traffic to the facility add to this congestion?

- a. Traffic and related congestion is not regulated by Metro Vancouver and is not something that can be considered as part of the air quality permitting process.

3. Can the assessment that is currently in progress by the Canadian Impact Assessment Registry (CIAR) influence the decision regarding the placement of the Semiahmoo RNG (Andion) biofuel facility?

- a. Metro Vancouver is unable to provide information on the Canadian Impact Assessment Registry process and its potential influence on the facility.

4. Is the SFN required to comply with the recommendations from the CIAR assessment?

- a. Metro Vancouver is unable to provide information on the Canadian Impact Assessment Registry process and any potential requirements on the Semiahmoo First Nation.

5. The Surrey Biofuels facility is only at 60% capacity - why not increase the use of that?

- a. Metro Vancouver is unable to provide information or offer an opinion on the usage of the Surrey Biofuel facility. The facility is owned by the City of Surrey and its air emissions are regulated by the BC Ministry of Environment.

6. What about Metro Vancouver giving the Semiahmoo First Nation the land to build it on?

- a. Land agreements are not considered as part of the air quality permitting process.

7. Is this process entirely safe? There have been about 6 explosions at similar facilities around the world, the last one very recently in the UK.

- b. The safety of facilities with respect to unplanned events, such as explosions, is outside Metro Vancouver's jurisdiction for regulating air quality.

- 8. Will there be provisions in the permit to protect and maintain the aesthetics of the area?**
- a. Aesthetics are outside Metro Vancouver’s jurisdiction and therefore cannot be considered as part of the air quality permitting process.
- 9. Our medical system is already burdened, why risk over burdening it even more?**
- a. The current state of our medical system is outside Metro Vancouver’s jurisdiction and therefore cannot be considered as part of the air quality permitting process.
- 10. Why not choose a location that does not have homes, residences, environmentally sensitive areas, parks, and recreation within 500 m of the site?**
- a. Siting and zoning considerations are outside Metro Vancouver’s jurisdiction and therefore cannot be considered as part of the air quality permitting process.
- 11. An RNG facility is being built by Fortis at the City of Vancouver Landfill. Doesn’t that make the Semiahmoo RNG GP Corp project redundant and potentially not economically viable?**
- a. The potential redundancy or economic viability of a project is outside Metro Vancouver’s jurisdiction and therefore cannot be considered as part of the air quality permitting process.
- 12. What happens if the Semiahmoo First Nation decides to expand this facility or develop more portions of their land?**
- a. Future development plans for Semiahmoo First Nation land is outside Metro Vancouver’s jurisdiction and therefore cannot be considered as part of the air quality permitting process.

