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Re: Response to Reduction in the Release of Volatile Organic Compounds (Storage and Loading of Volatile Petroleum Liquids) Regulations in *Canada Gazette, Part I, Volume 158, Number 8*

The Canadian Environmental Law Association ([CELA](#)) is federally incorporated and also a Legal Aid Ontario Clinic that uses existing laws to protect the environment, and advocates environmental law reform to promote access to justice and to provide aid to low-income individuals and disadvantaged communities in Ontario facing environmental problems.

CELA submits the following comments and recommendations to the Reduction in the Release of Volatile Organic Compounds (Storage and Loading of Volatile Petroleum Liquids) Regulations (Proposed Regulations) published for public comments in the *Canada Gazette, Part I, Volume 158, Number 8* (February 24, 2024). CELA supports the Proposed Regulations aimed to reduce emissions of toxic air pollutants such as VOCs and methane but offer some comments and recommendations to strengthen the approach in support of achieving the reduction of toxic air pollutants.

The Proposed Regulations fill a significant gap to reduce toxic emissions of VOCs and methane from the petroleum sectors that the current regulatory and non-regulatory approaches in place to date have not adequately addressed. The RIAS stated:

VOC emissions in the upstream petroleum sector are regulated under the 2018 Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector). These Regulations do not address VOC emission risks

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from storage and loading activities at crude terminals or loading activities at oil and gas production sites.

and

The mixture of aforementioned related instruments across different jurisdictions, where they exist, means that facilities are taking different approaches to mitigate VOC emissions, and monitoring data continues to show high ambient levels of benzene near liquid petroleum storage and loading facilities, despite existing federal and provincial measures in place. Therefore, there is no consistent standard of protection from the health risks associated with VOC emissions.

The health of the communities, particularly those communities in close proximity to such facilities are at a constant and elevated risk to the exposure of these toxic emissions from these facilities. The Proposed Regulations are expected to achieve reductions of these toxic emissions of VOCs, including benzene by 494 ktonnes and methane by 8 ktonnes over a specified timeframe between 2024-2045. While these reductions of toxic air emissions are necessary and long overdue, especially for many communities impacted by constant exposure to toxic air pollutants, we offer several comments related to the Proposed Regulations that require consideration in support of improving protection to these communities.

Target reductions of VOCs and Methane

The regulatory impact analysis statement (RIAS) for the Proposed Regulations offered good insight on the scope and objectives for reducing toxic air pollutants from petroleum liquid storage tanks and loading equipment used by the petroleum sector. However, more detail is needed in specific sections in the RIAS related to the distribution of reductions to be achieved under the Proposed Regulations to better understand how and what communities will be impacted. Tables 1 (Estimated number of facilities by facility type and province/territory) and 2 (Estimated VOC emissions from storage and loading operations by facility type and province/territory (tonnes, 2019)) of the RIAS offer basic information on facilities and expected reductions. Table 6 (Regulated facilities that are currently subject to existing regulatory requirements). The three tables provide partial information on the number of facilities that will be covered, but do not provide details on location of facilities for all provinces and territories, especially for Ontario. The absence of specificity for facility locations and number for a province like Ontario will mean that the most impacted communities, like Aamjiwnaang First Nation, who are most impacted by the location of these facilities, will not have definitive information on the facilities the Proposed Regulations will cover. Similarly, the expected reduction targets for VOCs does not provide details on how the reductions will be distributed across the facilities. This information is essential to better understand how communities are impacted by the Proposed Regulations and to understand how the cumulative effects from releases of toxic air pollutants may impact the communities.

Furthermore, the reductions for these VOCs and methane cover a period of 22 years (2024-2045). The RIAS demonstrates that the single biggest reduction should occur in the first 3 years of the regulations entry into force, with complete compliance to be achieved within 7 years. None of the analysis presented under RIAS forecast emissions of VOCs to account for additional facilities or discuss how toxic air emissions could impact communities where such facilities would be located. Figure 2 shows the VOC emissions in the baseline and regulatory scenarios, excluding methane emissions. The information presented in Figure 2 does not show how much VOCs emissions are reduced based on location. Again, for certain communities where many facilities are located in close proximity, the level of reductions from facilities is an important measurement to provide.

Recommendation: RIAS analysis should be expanded to provide additional data on expected reductions for specific communities where there are a large number of facilities that may be covered under the Proposed Regulations.

Scope of VOCs should be disclosed

The Proposed Regulations and the RIAS focus on reduction of emissions of pollutants such as VOCs, particularly benzene, known to be a carcinogen, and VOCs as precursors to the formation of P.M2.5 and ground level ozone. It would be useful to have full disclosure on a complete list of VOCs expected to be addressed under the regulations. Communities should have easy access to this list of VOC substances. There may be other VOCs that warrant additional attention because of their impact to health or the environment.

Non application of regulations

We are concerned that the proposed regulations will exclude facilities meeting conditions set out in s. 2(1), particularly those facilities in close proximity to communities. Several of the categories for facilities for which the proposed regulations would not apply, have not been adequately explained in the regulatory impact analysis statement by identifying the communities and locations of facilities that would not be subject to the proposed regulations. For certain communities, such as the Aamjiwnaang First Nation community, located fence line to many of the emitting facilities, the knowledge of those facilities would be significant to understanding what reductions of VOCs emissions such as carcinogenic VOCs like benzene and other air pollutants (methane and P.M2.5) could result from the proposed regulations. Specifically, s.2(1)(e) states:

facilities where each tank used to store volatile petroleum liquids and each loading rack used to load volatile petroleum liquids is located more than 300 m from any occupied building, ...

The RIAS should provide details on what facilities would meet these conditions.

Recommendation: The RIAS should be revised to include a detailed explanation to identify the facilities that would not be required to comply with the regulations set out in S. 2 of the Proposed Regulations. Specifically, more information presented to justify how the distance of greater than 300 m as outlined in S. 2(1)(e) provides adequate protection to communities fenceline, such as the Aamjiwnaang First Nation, to these facilities.

Phased-in approach and Timelines

The RIAS states:

The proposed Regulations define criteria for the time permitted for regulated facilities to bring equipment into compliance and these criteria are based on the equipment's prior condition and emissions risk. The implementation of the proposed Regulations would follow a phased-in approach, requiring regulated facilities to prioritize highest-emitting equipment.

RIAS outlines that the Proposed Regulations seek to have at least 80% of tanks at a facility or those facilities with less than 2 tanks requiring emissions control equipment as well as high emitting loading racks would be in compliance within the first three years (also seen in Table 5: Timeline for compliance with the proposed Regulations). We are concerned that the Proposed Regulations provide additional flexibility for some of these categories that could result in delays in compliance for up to four years for tanks and an additional two years for lower emitting loading racks. These tanks and loading racks would be considered non-compliant and should be made to comply within a shorter period of time. Allowing the additional four years will allow facilities to bring into compliance 5% of their remaining tanks. The RIAS has not provided a listing of facilities that may require the additional time to comply with the Proposed Regulations. There are communities that will be impacted by facilities requiring additional time to comply with the regulations. Full disclosure on the facilities that may require additional time to comply should be identified and reported to the public.

Inspections, Tests and Records

RIAS summarizes the inspection, testing and record requirements in the Proposed Regulations in the following manner:

Operators would be required to inspect the emissions control equipment and undertake repairs where necessary, including

- *Monthly visual inspections of floating roof tanks for major defects or flooding.*
- *Monthly lower explosive limit testing of internal floating roof tanks.*
- *Annual measurement of the secondary rim seal gaps of external floating roof tanks. Primary rim seal gap measurements would be required every five years.*
- *Internal inspection of tanks, including rim seals, every twenty years.*

- *Annual inspection of pressure-vacuum vents.*
- *Maintaining a continuous emissions monitoring system on vapour recovery or destruction systems.*
- *Monthly inspection of vapour control systems for leaks.*

The intervals for inspection should be more frequent for all emission control equipment in use by facilities. While the cost of inspection will increase, it is substantially important that any leaks or breakage of equipment be addressed as quickly as discovered. Therefore, mandatory regular inspections are an essential element of accountability regime. The current inspection requirements may mean significant delays in addressing problems with the equipment that can result in increased emissions of toxic air pollutants. Given that the RIAS outlines a 22 year analysis timeframe, the internal inspection required for tanks is set at every 20 year meaning that no records of inspection of this equipment may be monitored for potential defect until the end of the timeframe for this regulation. Currently, the RIAS did not provide an explanation on the inspection times outlined in the Proposed Regulations to justify the times required for inspections of emission control equipment.

RECOMMENDATION: Change the inspection times in the Proposed Regulations for the following to:

- **Twice monthly for visual inspections of floating roof tanks for major defects or flooding.**
- **Twice monthly lower explosive limit testing of internal floating roof tanks.**
- **Every three months measurement of the secondary rim seal gaps of external floating roof tanks. Primary rim seal gap measurements would be required every two years.**
- **Every seven years do an internal inspection of tanks, including rim seals.**
- **Every three months do an inspection of pressure-vacuum vents.**
- **Maintain a continuous emissions monitoring system on vapour recovery or destruction systems.**
- **Twice monthly inspection of vapour control systems for leaks.**

We further note the need to make any and all reports of inspections of emission control equipment be made available to the public through a publicly accessible website that is updated regularly and presented in an annual report. The feedback received during the initial consultation and noted in the RIAS indicated that this was an important requirement for communities that are impacted by the emissions of toxic air pollutants. The Proposed Regulations do not reflect requirements for making inspection reports or records available to the public as stated in the RIAS.

In response to concerns related to record-keeping and reporting, the Department has included additional reporting and record-keeping requirements for equipment inventories, repairs and implementation progress and will evaluate options for making reported data publicly available, while protecting confidential business information.

Recommendation: Add requirements in the Proposed Regulations for release of reports (inspections and repairs) and records to the public that is updated on a regular basis and available through a publicly accessible website.

Please do not hesitate to contact us should you have questions.

Yours truly,

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