CANADIAN GAS ASSOCIATION
ASSOCIATION CANADIENNE DU GAZ

canadian energy pipeline association | association canadienne de pipelines d'énergie

May 11, 2021

Lisa Swain
National Pollutant Release Inventory
Science and Technology Branch
Environment and Climate Change Canada
Government of Canada
Email: ec.inrp-npri.ec@canada.ca

Re: New Requirements for Reporting Criteria Air Contaminants (CACs) and Speciated Volatile Organic Compounds to the National Pollutant Release Inventory (NPRI) Consultation Document-March 2021

Dear Ms. Swain

The Canadian Energy Pipeline Association (CEPA) and Canadian Gas Association (CGA), on behalf of our natural gas transmission, storage and distribution company members, appreciate the engagement efforts of Environment and Climate Change Canada (ECCC) on the proposed changes to NPRI reporting requirements that are expected to take effect for the 2022 Reporting Year. Thank-you for providing to us a very comprehensive updated proposal and thorough analyses of available data in order to show the anticipated impacts of the proposed changes. We found the flow chart figures in the consultation document, and the March 24th slide deck particularly helpful in understanding the proposed changes. We also appreciate that a number of our previous recommendations have been adopted.

CEPA and CGA are pleased to provide the following comments.

1. Proposed three-year interval in NPRI Gazette Notices

ECCC advised during the March 2021 Working Group webinar meetings the intent to move from a two-year to a three-year interval between NPRI Gazette Notices. The discussion indicated that this change is expected to provide a longer period of stability in reporting requirements, which would benefit reporters, data users and ECCC, and improve data quality. ECCC also suggested that, that in the event of an urgent circumstance, provision could be made for a focused Gazette Notice during that interval.

CEPA and CGA support this change. We recommend that the Work Plan for the Working Group, ensure that the entire period between notices be used effectively for meaningful consultation, and that the discussion of future significant changes and the underpinning information be brought forward as early as feasible during that that three-year interval.

2. Proposed Changes

Proposed Changes to Releases of CACs from individual stacks

The ECCC proposal would require the collection of data from stacks meeting the following new thresholds:

- a stack height threshold reduced from the current 50m to 25m above grade (physical height for stacks and effective height for flares);

- increased stack air release thresholds as set out on Table 4 of the consultation document, except for VOCs which remains the same as the current stack threshold; and
- the addition of an annual average stack exit temperature threshold of 50 degrees C, with the added flexibility to determine whether or not stack reporting is required without considering this exit temperature threshold.

Stack Heights

In the course of reviewing the ECCC analyses on stack and release coverage (summarized on Table 6), we note that ECCC's stated goal for the current analysis of 'approximately 1,500 additional required stack-substance reports... for a total of about 4,500 reports' is met. The dataset adjustments made for the 2021 analyses, which underpin this assessment, make sense to us. It is our view that the current proposal appropriately increases stack and release coverage, while being mindful of reporting burden.

The 25m above grade stack height would still capture stacks at the natural gas compressor stations with larger units, while eliminating stacks at storage compressor stations and transmission pipeline compressor facilities, where compressor operations tend to be highly variable and/or serve a peaking function. The emissions from the latter stacks would still be reported, as they currently are, under the facility reporting.

CEPA/CGA also note that ECCC does not plan to exempt or add any special requirements for stacks located near buildings. We believe that a 25m above grade stack height reduces the modelling concerns that we had initially raised in our 2018 submission when a lower stack height was under consideration. At that lower stack height, there were concerns about effects of micrometeorology created by local buildings and topography on dispersion.

Increase of the Current Stack Air Release Thresholds (Table 4)

CEPA and CGA agree with the proposed increases in the current stack air release thresholds as set out on Table 4 of the consultation document. As outlined in our 2019 submission, our members currently report CACs from combustion at the facility level, predominantly from compressor stations, which typically would trigger nitrogen oxides (as NO_2), which is the primary contaminant from combusting pipeline quality natural gas. A majority of these facilities are already reporting to NPRI. We evaluated stack releases at facilities and, based on the proposed release thresholds, in almost all cases, only NOx (as NO_2)would be reportable at the stack level. In a very few instances, typically where larger reciprocating engines are in use, CO was found exceed the proposed threshold.

Emissions of the other CACs, including sulphur dioxide (SO_2), Total Particulate Matter (TPM), PM_{10}, $PM_{2.5}$ and Volatile Organic Compounds (VOCs) are extremely minor. *The Canadian Natural Gas Transmission and Distribution Companies 2019 Criteria Air Contaminants Inventory* (CEPEI, 2021) reports 11 tonnes of SO_2, 40 tonnes of PM and 295 tonnes of total VOCs across the entire natural gas transmission and distribution pipeline sector in Canada, including storage facilities operated by the pipeline companies. At a facility and stack level, these emissions are negligible. Thus, we agree that the stack level reports shouldbe required for only the substances that exceed the Table 4 thresholds. A stack height (25m above grade), coupled with the proposed release thresholds on Table 4, would not reduce release coverage from the natural gas pipeline sector for these parameters.

Temperature Thresholds

We also support that allowing facilities to opt whether or not stack reporting is required based solely on stack height and air release quantities, (without considering temperature) is an appropriate flexibility.

In addition, the four default options set out for determining the annual average stack exit temperatures, where the facility does not have access to this information (Consultation Document, p. 7), offer the needed flexibility where this temperature must be reported. This ameliorates CEPA/CGAs' earlier concerns, outlined in the 2019 submission, about what proxy could be used for this parameter for compressor stacks, where the operating times and conditions are very variable throughout the year, and year-over-year.

Exemptions and Stack Grouping

CEPA and CGA support the proposed exemptions from individual stack reporting requirements:

- exemption of horizontal or non-vertical stacks, vertical stacks with rain caps, and stacks/vents from storage tanks
- exemption of Case 3 and Case 4 oil and gas facilities (NAICS code 211110-Oil and Gas Extraction, except Oil Sands and less than 10 employees).

In the first case, we support excluding these types of stacks as they typically have little or no vertical velocity, and stacks/vents from storage tanks exhibit virtually no plume rise. Thus, it makes sense, as ECCC suggests, to treat these as ground level sources for the purposes of regional air quality modelling.

While the natural gas pipelines sector is not directly affected in terms of emissions reporting from Case 3 and Case 4 facilities, we have had the opportunity to review this with the affected sector. On this point, we concur with CAPP's recommendations on adding explicit statements in the consultation document to increase reporting clarity.

Allowing grouped reporting for stacks with similar characteristics and treating them as a single elevated source for modelling purposes makes sense and may well make reporting somewhat less burdensome.

Release of CACs from Combustion (including flaring) and Fuel Use Sources

Only marketable natural gas is used at natural gas pipeline compressor stations for energy purposes. It is not expected that the natural gas pipeline sector (including storage) would be affected by ECCC'snew proposal to require separate reporting for stack or point releases from four categories of combustion and fuel use sources for individual stacks that must report, and for the total of stack or point releases that are not reported at the individual stack level. We understand the potential value of the added information in improving uncertainty in regional air quality modelling and inventory results, and recognize the attempt to align these proposed release categories (i.e., stationary fuel combustion for energy, combustion of fuels for non-energy purposes, flaring, and use of fuels for non-energy purposes) with those of the Output -Based Pricing System (OBPS) and the Greenhouse Gas Reporting Program (GHGRP). But, as Table 10 in the consultation document shows, these four categories do not clearly map against OBPS or GHGRP. We also appreciate that ECCC is no longer requiring that Part 5 substances be reported separately for combustion and fuel use activities, and that the changes described above apply only to Part 4 substances.

Nevertheless, we are concerned that the added reporting complexity and potential reporting burden these additional categories introduce, as well as the potential for misunderstanding and inconsistency in the application of these categories among reporting companies, will affect the resultant data quality. We look forward to hearing from the most impacted sectors, especially those in mining, quarrying, oil and gas extraction, and manufacturing, as to the complexities of reporting stack or point source release quantities separately for combustion, flaring and non- combustion sources, including the potential for duplication.

Additional Stack Information- Pollution Control Equipment

ECCC is proposing to require an indication of any installed and operating pollution control equipment for each stack that is required to report, and the control efficiency of the equipment. It is not clear how this information adds value given that reported emissions are those after the pollution control equipment and already take into account the emissions reductions achieved as a result of that equipment. Moreover, control efficiency can differ depending on operating mode and load, especially for equipment where operations are highly variable. So, it may be more burdensome than anticipated to reflect the control efficiency in those circumstances.

It also is also not immediately apparent how this contextual information would in fact improve estimates of co-emitted pollutants, and why information in the pollution prevention section of the NPRI is not sufficient.

CEPA/CGA recommend removal of this requirement unless further clarity can be provided regarding how this provision assists the modelling and how concerns related to operational variability can be addressed.

Releases of speciated VOCs-Part 5 Substances

CEPA/CGA understand that ECCC's proposal is intended simplify reporting by decoupling the current 10-tonne facility-wide <u>total</u> VOCs release threshold from the determination of whether a facility must report a speciated VOC from the facility. Removal of this 10-tonne threshold and relying on a single facility release threshold of ≥ 1 tonne of a speciated VOC may add a due diligence and reporting burden for smaller facilities, in particular (i.e., those that do not meet the 10-tonne facility threshold for total VOCs but now must determine if any speciated VOC is released at ≥1 tonne of a speciated VOC). We question if the additional reported emissions warrant the added effort?

CEPA, CGA and our member companies would be pleased to elaborate further on our comments and look forward to continuing to be engaged and to constructively contribute to in this consultation process.

Sincerely,

Jasmine Urisk, CEPA/CGA NPRI Work Group Member
CC: Ana Maric, Alternate CEPA/CGA Work Group Member