

**National Pollutant Release Inventory (NPRI)  
Criteria Air Contaminants (CACs) Subgroup**

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**Part A.      Overview – Context of Comments**

Facilities have been required to report Criteria Air Contaminants (CAC) emissions to the NPRI since 2002. The CACs include: sulphur oxides (SO<sub>x</sub>); nitrogen oxides (NO<sub>x</sub>); volatile organic compounds (VOC); carbon monoxide (CO); and particulate matter (TPM, PM<sub>10</sub>, PM<sub>2.5</sub>). The reporting of these substances is triggered at different thresholds (Part 4, *Canada Gazette Notice*).

Significant issues have surfaced related to data quality with respect to the reported emissions of CACs. ENGOs strongly support the need to explore mechanisms to improve the quality and quantity of information on the NPRI in general and specifically and more urgently, CACs.

Neither the comprehensive CAC inventory nor the NPRI requires or collects process-level emissions and related information. The lack of process-level information and emissions makes it difficult to assess the completeness and accuracy or large variations in emissions.

On the other hand, CAC inventories maintained by other countries or organizations with which Canada has agreements do collect process level data. For example, the UN ECE (United Nations Economic Commissions for Europe) annual emissions reports require specific process and fuel-related information that include a breakdown by process/fuel for 7 CACs<sup>1</sup>. The U.S. air inventories (state-wide and federal) have traditionally required facilities to report process-level emissions and related information for CACs (except TPM). Under the Consolidated Emissions Reporting Rule (CERR), this information is required on a 3-year cycle.

Within Canada, there are different requirements for this information. For example,

- Québec has been collecting process level information on a voluntary basis for more than 15 years. The province is moving to a mandatory system that will require specific process information such as fuel characteristics to be reported annually by facilities<sup>2</sup>.
- British Columbia requires process data for its air-shed management program and for projections. This data is also available to the public if requested.

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<sup>1</sup> The CACs include SO<sub>2</sub>, NO<sub>x</sub>, TPM, PM<sub>10</sub>, PM<sub>2.5</sub> and NH<sub>3</sub> (ammonia) for all sources (except forest fires).

<sup>2</sup> Refer to <http://www2.publicationsduquebec.gouv.qc.ca/home.php>

Without such process information, B.C. is not able to use NPRI data, which defeats the purpose of a national one-window inventory.

- Environment Canada's Mandatory GHG Reporting System requires a breakdown of the emissions according to stationary combustion, process, fugitive, venting & flaring, and on-site transportation emissions.

Lack of process-level information affects Canada's capacity to meet the annual reporting obligations of domestic programs and international agreements and to provide the required data files for the air quality models used in Canada and in the United-States.

Canadian industries are strongly resistant to supplying process-level information to the NPRI and consider such information to be of a confidential nature. However, since comparable facilities in the U.S. and other regions submit this data, the case for Canadian industries is specious. Furthermore, no industry sector is conducting direct measurements of reported emissions, and the type of information claimed to be confidential is publicly available from other government bodies.

## **Part B. ENGO Recommendations**

**Data measurement** – Direct measurement techniques and monitoring of emissions need to be employed as a means of obtaining solid information on emissions. The use of emission factors deemed to be inaccurate should not be acceptable. Emission estimation methodologies including direct measurement and monitoring technologies need to be reviewed, particularly in cases where data discrepancies are significantly outstanding.

**Process-level data** – Clearly, process-level data is essential. The degree of information required and frequency of reporting this information to the NPRI needs to be developed in order that the data collected would be useful and compatible with other inventories. Furthermore, the degree of public access to process data needs to be determined. The burden of reporting issue expressed by industry must not be a deterrent to the collection of process-level information through the NPRI.

**Reporting requirements** - The fact that the NPRI does not require facilities to expend any effort beyond what that they normally do for calculating emissions is a problem and needs to be examined.

**Verification and auditing** – Issues with data quality described vividly illustrate the need for the development of a uniform data verification protocol that would apply for CACs and potentially to all substances on the NPRI.

**Historical emissions (from 2002 on)** - A reporting requirement for facilities needs to be developed to allow for the revision of historical emissions to resolve the large data variations between different years and the incompleteness of the data for 2002.

**Coverage of CACs , Comprehensive Inventory** - The issue of emissions of CACs from those facilities that do not meet the NPRI threshold for reporting or are exempt from

reporting to the NPRI need to be addressed. Furthermore, the comprehensive CAC inventory should be reviewed as to sources of information, coverage and completeness.

**Harmonization** - The current and upcoming reporting requirements for different programs (provincial, federal) need to be considered in terms of possible linkages and benefits of harmonization.

**Part C. Other Issues for Discussion related to CACs**

*The following issues have been identified for further work of CAC sub-groups.*

**VOC speciation** - The current speciated list is not adequate for the purposes it was formed. The requirements and criteria for listing VOC species need to be reviewed.

**Stack Height** - The 50 meter cut-off for major stacks may not be appropriate to track CAC emissions and making air quality predictions and needs to be reviewed.

**Reporting thresholds for CACs** – While the triggers for reporting CACs individually and collectively is to be reviewed, it is important that any changes to these thresholds do not lessen the information reported, but allow result in an overall improvement in accuracy and coverage.

**Estimation Methodologies** – Environment Canada is reviewing the various methodologies for reporting emissions as a means of improving data quality.

**Part D. Summary**

ENGOs on the Working Group have strongly supported the collection of process-level information. In addition, ENGOs have further recommended that Environment Canada explore additional means to improve data quality and completeness of reporting such as estimation methodology; the application of direct measurement and monitoring of emissions; and verification and auditing mechanisms.

We have continuously stressed the need for the NPRI to make the necessary adjustments to reporting to the NPRI, including the collection of process-level information that would assist in resolving the issues of data quality for CACs.

In terms of further work on CACs, ENGOs support the need to review the requirements and criteria for listing VOC species, examining stack height criteria for reporting, investigating speciation of Particulate Matter and reviewing the thresholds for reporting CACs.

The addition of CACs to the NPRI has been a major achievement in terms of providing public with access to information on these air pollutants in their community that they would otherwise not have at such a scale. ENGOs stress the importance of working toward improving the quality of data reported to the NPRI so that Canada can meet its domestic and international obligations and the Canadian public can rely on the data

provided through the NPRI. Any move to exclude the datasets from public and ENGO review and use is not acceptable.

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