

Final Report of the ENGO Representatives of the NPRI Working Group

Table of Contents

Section 1: General Comments on the WG for RY 2002

- a) WG Meetings
- b) ENGOs Response
- c) Technical Sub-Groups of the Work Group
- d) Participation of Provinces in WG Meetings

Section 2: Recommendations for WG 2002

- a) Membership
- b) Subgroups
- c) Provinces

Section 3: Issues and Priorities for the Year 2002 (RY 2003)

3.1 Substances

- a) Metals: Nickel; Thallium; Beryllium; Selenium
- b) Substances initially identified for RY 2002 but postponed (section 6.4)
- c) Addition of Radionuclides – Releases from Uranium Mining

3.2 Review of Existing Exemptions (Sectors)

- a) Mining Sector
- b) Exemptions for Other Sectors
 - i) Drilling and Operation of Oil and Gas Wells
 - ii) Vehicle Maintenance and Repair
 - iii) Facilities Engaged in Fuel Distribution, Storage and Retail Sale
 - iv) Research and Testing Facilities

Section 4 Reporting Data and Verification

- a) Preliminary Release of Data
- b) Reporting Format
- c) Verification

Section 5 Pollution Prevention Strategy (P2)

Appendices: ENGO submissions

- 1) Letter of September 7, 2001
- 2) Letter of October 30, 2001

Section 1: General Comments on the WG for RY 2002

a) Work Group (WG) meetings:

The WG meetings in 2001 consisted of three face-to-face sessions, Ottawa (April 30/ May 1) Toronto (June 26/27), and Montreal (September 25/26) and two three-hour teleconference calls (July 18 and October 18). ENGO representatives on the WG participated in all such meetings and held their own caucus meetings and communication via e-mail and teleconference calls in the interim.

The Work Group meetings discussed changes, additions and deletions to the 2002 reporting year, with focus primarily on the addition of Criteria Air Contaminants (CACs) and the ramifications, alternate thresholds for four metals, and removal of exemptions.

Three WG Reports were issued, namely: First Draft July 24, Revised Draft October 12 and the Final Draft, November 8.

b) ENGOs Response:

NGOs submitted two letters to the NPRI dated September 7 and October 31 with detailed comments and recommendations in response to the first two reports (see attached letters in the appendix). In addition, the ENGOs of the WG issued an Action Alert to over 200 organizations (via the Toxics Caucus of the Canadian Environmental Network (CEN)) that included a summary of recommendations submitted in the above-mentioned letters. Several organizations provided feedback and endorsed these recommendations.

c) Technical Sub-Groups of the Work Group:

In order to focus on specific issues arising from the addition of the CACs, technical sub-groups were established at the second WG meeting. The mandate of the sub-groups was to assist in developing options to present to the WG as a whole. The particular sub-groups designated were CAC Thresholds, VOCs Speciation, Stacks, and Greenhouse Gases (GHGs). In addition to the sub-groups, a steering committee was formed to assist with the coordination of the sub-groups and the Work Group. Subsequently, sub-groups were formed on Alternate Thresholds (ATH) and on Upstream Oil and Gas. As the WG agreed to postpone the addition of GHGs by one year, the GHG sub-group did not become activated until the September WG meeting. The ENGOs on the WG have participated and continue to do so in all the active sub- groups.

Both CAC thresholds and Stacks sub-groups completed their work through e-mail correspondence and were essentially dissolved. Most members of the WG expressed dissatisfaction with the lack of interaction and communication within the sub-groups and opted for face-to-face meetings with teleconference calls for ongoing sub-group work.

Currently four sub-groups are active in addition to the steering committee.

- 1) Alternate Thresholds (ATHs)
- 2) VOCs-CAC Speciation
- 3) Greenhouse Gases (GHGs)
- 4) Upstream Oil and Gas (UOG)

Options from these sub-groups are to be presented to the WG in the spring of 2002 for the Reporting Year 2003.

The ATH subgroup work is near completion and it is the expectation of the NGO representatives that it can be finalized without undue delay. The addition of GHGs was proposed for reporting year 2002 but has been delayed by a year. NGOs have continued to stress the need for the GHG sub-group to move ahead with the necessary work to ensure that reporting of GHGs commences for the 2003 reporting year.

The work of three of the sub-groups, namely VOCs, GHGs and UOG is very intensive, requiring a great deal of commitment in time (face-to-face meetings and teleconference calls) and material in light of the degree of complexity of the topics. Ideally, at least two NGO representatives should be available for sub-group participation in order to be effective in the discussions and outcome.

NGOs support the completion of the tasks of these sub-groups in due time for presentation and discussion by Spring 2002 and in place for the reporting year of 2003.

d) Participation of Provinces in WG Meetings

Other than Ontario, there has been a noted lack of active participation from other provinces in the WG meetings and Sub-Groups. We consider this unacceptable. With such limited participation of other jurisdictions, harmonization of reporting with the NPRI becomes more difficult. At the same time, ENGO members of the WG will not support harmonization if it results in the weakening of reporting requirements.

Section 2: Recommendations for WG 2002

a) Membership (Work Group and Sub-Groups)

It may be anticipated that the frequency of meetings of the Work Group (face-to-face, teleconference) as well as the accompanying documents will be at least as intensive if not more so than the past year. Furthermore, it is conceivable that the membership from industry representatives on the WG may change and for that matter, increase. In light of this, consideration should be given to increase the number of NGOs on the Work Group as well as Sub-Groups.

b) Subgroups

The nature of sub-group work has intensified, and it is likely that more sub-groups may be established according to the needs of the Work Group. The overall status of the sub-groups should be reviewed along with the composition of potential new sub-groups.

NGOs would not want the degree of work of the sub-groups to be a deterrent to the overall process. To better serve the needs of the environment community and the public, Environment Canada should place more resources toward supporting and augmenting ENGO participation in these sub-groups and to allow ENGOs to develop position papers as input to the Sub-Group discussions.

c) Provinces:

The absence of many of the provinces from participation in NPRI WG meetings has been remarked upon several times by most of the WG members. We recommend that the provinces become more directly involved in the process, rather than remain in the background as observers. EC should explore the reasons for the provinces not participating more fully and develop options to address these reasons.

Section 3: Issues and Priorities for the Year 2002 (RY 2003)

3.1 Substances

a) Metals - Addition to NPRI or Adoption of Alternate Thresholds (ATH)

i) Nickel: Nickel is a CEPA-toxic substance currently on the NPRI at the conventional 10 tonne threshold. Nickel is a recognized carcinogen and suspected blood, developmental, immuno, kidney, neuro, reproductive, respiratory and skin or sense organ toxicant.¹ Nickel is used in a number of sectors including printed circuit board manufacturing (wire materials), as conductive filler in plastics, in odour agents (catalysts), reprographics (electrophotographic carrier core materials) and textiles (internal anti-static agents).² The reporting threshold for nickel should be reduced to 5kg per year MPO (manufactured, processed or otherwise used), consistent with the approach taken for other high toxicity heavy metals, such as mercury.

ii) Thallium: Thallium is a trace metal associated with copper, gold, zinc, and cadmium.³ It is a suspected blood, gastrointestinal or liver, neuro and skin or sense organ toxicant.⁴ Man-made sources of thallium pollution are gaseous emissions from cement factories, coal burning power plants, and metal sewers. The leaching of thallium from ore processing operations is the major source of elevated thallium concentrations in water. Thallium is a TRI listed chemical but is not presently listed on the NPRI. Thallium should be added to the NPRI with an alternate reporting threshold of 5 kg.

iii) Beryllium: Beryllium is a TRI listed chemical not currently on the NPRI. Beryllium is a recognized carcinogen, and also has the potential to damage bones and the lungs.⁵ It is released principally in the smokestacks and ash wastes of power plants that burn coal. It is also found in discharges from other industries, such as copper rolling and drawing and non-ferrous metal smelting⁶ and is used in the manufacturing of some sports equipment. Consistent with the treatment of other highly toxic heavy metals, Beryllium should be added to the NPRI with an alternate reporting threshold of 5 kg.

¹ http://www.scorecard.org/chemical-profiles/summary/.tcl?edf_substances_id=7440%2d02%2d02

² http://www.scorecard.org/chemical-profiles/uses.tcl?edf_substance_id=7440%2d02%2d02

³ <http://www.epa.gov/safewater/dwh/c-ioc/thallium.html>

⁴ <http://www.state.nj.us/health/eoh/rtkweb/1840.pdf>

⁵ <http://www.epa.gov/OGWDW/dwh/c-ioc/berylliu.html>

⁶ <http://www.epa.gov/OGWDW/dwh/c-ioc/berylliu.html>

iv) **Selenium:** Currently listed on the NPRI at the 10 tonne threshold, Selenium should be considered for an ATH. The greatest use of selenium compounds is in electronic and photocopier components, but they are also widely used in glass, pigments, rubber, metal alloys, textiles, petroleum, medical therapeutic agents, and photographic emulsions.⁷ Selenium is identified by USEPA as a persistent, bioaccumulative and toxic substance⁸ and should be considered for an ATH of 5 kg.

b) Substances initially identified for RY 2002 but postponed (section 6.4):

- **Carbonyl Sulphide:** Add to NPRI with ATH.
- **Hexachloro-1,3-butadiene (HCBd):** Add to NPRI with MPO threshold of Limit of Quantification (LoQ). HCBd is a suspected carcinogen and developmental and reproductive toxicant.
- **Hexabromobiphenyl:** Request EC to define what is meant by “Canada meeting its international obligations for this substance” and why this justifies not listing on NPRI. Recognized carcinogen and developmental toxicant.⁹
- **Octachlorostyrene:** Add to NPRI with ATH of LoQ. Listed as persistent, bioaccumulative toxic chemical by USEPA.¹⁰
- **TBBPA:** Add to NPRI and consider PBT factors on whether lower reporting threshold than 50 kg is appropriate.
- **Inorganic Chloramines:** Assessed as CEPA toxic substances and should be added to NPRI at ATH.
- **Dichloromethane, Chlorinated Alkanes, and Nonylphenol and Ethoxylates:** All CEPA toxics currently on the NPRI, should be considered for ATH. Dichloromethane is recognized carcinogen.¹¹
- **NDMA, Chlorobenzenes, and Pentachlorophenol:** These substances should be checked against DSL for use at one tonne threshold, and other decision factors. NDMA is a recognized carcinogen.¹² Chlorobenzenes are suspected gastrointestinal and liver toxicant. Pentachlorophenol is a recognized carcinogen and listed as persistent, bioaccumulative toxic substance by USEPA.¹³

c) Addition of Radionuclides - Releases from Uranium Mining

Uranium decays into a number of long-lived, alpha-emitting radionuclides (Th-230, Ra-226, Rn-222) and three shorter-lived, alpha emitting Polonium-210 isotopes. These radioactive substances are released into the environment by mining high grade uranium ore and decay for thousands of years producing more alpha-emitting radionuclides. Even at infinitesimally low doses, emissions from these radioactive substances are likely to cause genetic and somatic harmful effects not just for this generation but for those who live on this planet for many thousands of years. In its 1994 biennial report, the

⁷ <http://www.epa.gov/OGWDW/dwh/c-ioc/selenium.html>

⁸ http://www.scorecard.org/chemical-profiles/regulation.tcl?edf_substance_id=7782%2d49%2d2

⁹ http://www.scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=36355%2d01%2d8

¹⁰ http://www.scorecard.org/chemical-profiles/regulation.tcl?edf_substance_id=EDF%2d151

¹¹ http://www.scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=75%2d09%2d2

¹² http://www.scorecard.org/chemical-profiles/regulation.tcl?edf_substance_id=62%2d75%2d9

¹³ http://www.scorecard.org/chemical-profiles/regulation.tcl?edf_substance_id=87%2d86%2d5

International Joint Commission recommended that “governments incorporate those radionuclides which meet the definition of persistent toxic substances in their strategy for virtual elimination.¹⁴ The IJC has repeated this recommendation in each of its biennial reports since then. These radionuclides should be added to the NPRI at very low (ATH) thresholds.

d) Addition of GHGs

The reporting of Greenhouse gases, essential to the fulfilment of Canada’s commitments under the Kyoto Protocol, was proposed for the 2002 reporting year, but was delayed. The GHG sub-group needs to move ahead as soon as possible, so that reporting will commence with the 2003 reporting year.

3.2 Review of Existing Exemptions (Sectors)

a) Mining Sector

Mining facilities, but not facilities engaged in the further processing of mined materials are currently exempted from reporting under the NPRI. This constitutes a serious gap in the NPRI reporting structure.

Mining operations in Canada produce approximately 650 million tonnes of tailings and waste rock each year. In Canada, most of the base metals, precious metals and uranium occur in association with sulphur, and therefore these wastes are often subject to Acid Mine Drainage (AMD). It has been estimated that by 1987 there were 350,000,000 tonnes of waste rock and 510,960,000 tonnes of sulphide tailings in Canada having the potential to cause AMD. AMD is associated with major and ongoing releases of metals to surface waters¹⁵.

In addition to the generation of wastes with potential to generate AMD, certain types of mining operations, such as heap leaching, can also lead to major releases of hazardous and toxic substances into the environment.

Mining operations are also a significant source of releases of particulate matter. In 1980 Environment Canada estimated that 63,000 tonnes of particulate emissions originated from mine tailings¹⁶.

The exemptions from reporting for the coal and metal mining sectors were removed from the US Toxics Release Inventory (TRI), beginning in the 1998 reporting year. As a result, the metal mining sector in the US emerged as the largest source of total on-and off-site releases of TRI substances, constituting 51.2% of all releases reported to TRI in 1999¹⁷.

¹⁴ Seventh Biennial Report, p. 47.

¹⁵ Environment Canada The State of Canada’s Environment, Minister of Supply and Services, 1991), pp. 11-8 – 11-12.

¹⁶ Environment Canada The State of Canada’s Environment, Minister of Supply and Services, 1991) pg.11-16.

¹⁷ USEPA, Toxic Release Inventory 1999 – Executive Summary.

These outcomes suggest that the exemption for the mining sector constitutes a major gap in the NPRI reporting structure, particularly with respect to on-site land releases, which may ultimately result in water pollution. The exemptions from reporting for the metal and other mining sectors from the NPRI should therefore be removed for the 2003 reporting year.

b) Exemptions for Other Sectors

i) Drilling and Operation of Oil and Gas Wells

Oil and gas well drilling and operations are significant sources of releases of pollutants to the environment. Significant quantities of wastes are generated during the drilling process, and operating wells may be sources of locally and cumulatively significant releases of criteria air contaminants, greenhouse gases and other NPRI pollutants. The Sub-Group on the upstream oil and gas sector has been formed in September 2001. This group should seek to complete its work regarding the removal of reporting exceptions for this sector for the 2003 reporting year.

ii) Vehicle Maintenance and Repair Facilities

The current exemption for facilities used for the maintenance and repair of transportation vehicles should be removed for CAC reporting requirements, or reporting requirements for any other NPRI substances. The issue of exhaust emissions from large fleet maintenance facilities should be investigated.

iii) Facilities Engaged in Fuel Distribution, Storage or Retail Sale

The current exemption for facilities engaged in distribution, storage or retail sale of fuels should be modified to remove the exemption for terminals and other significant fuel storage facilities (including the storage of crude oil).

iv) Research and Testing Facilities

The lowering of reporting thresholds for certain types of priority substances, such as persistent organic pollutants and heavy metals, raises the question of the need to revisit the current exemptions from reporting. Certain types of academic, industrial and governmental research and testing facilities may process or use these substances above the new reporting thresholds, and therefore should be required to report releases and transfers. Continued exemptions cannot be justified in the context of the potential environmental and health impacts of these substances.

Section 4 Reporting Data and Verification

a) Preliminary Release of Data

NGOs support EC's proposal to release NPRI raw data to the public for review and to establish a process for facilities to review its data and the uploading of the revised NPRI data to the website.

b) Reporting Format

Concerns have been raised regarding potential confusion among report recipients if NPRI data on releases and transfers of greenhouse gasses, criteria air pollutants and other NPRI substances are released to the public simultaneously. In order to avoid confusion, data on these classes of pollutants can be gathered simultaneously through the NPRI reporting structure, but released to the public as three separate datasets that would be linked so that all pollutant releases and transfers (GHGs, CACs and other NPRI substances) for a given facility can be accessed. The database structure should also facilitate the investigation of relationships between releases of GHGs and CACs and releases and transfers of other NPRI substances within specific facilities, sectors and regions.

c) Verification

Methods of verification of data submitted need to be explored, particularly as the NPRI is moving in directions to include more substances at alternate thresholds and remove exemptions from facilities.

Section 5 Pollution Prevention Strategy (P2)

NGOs support reporting P2 activities in a more detailed way and support the improvements suggested by Environment Canada that would help with clarification and interpretation of P2 terminology. Suggested improvements by EC include two additional questions intended to determine if facilities are truly engaged in pollution prevention planning. Furthermore, life cycle analyses and management of substances, in particular CEPA Track 2 substances, would be a valuable component of P2 studies.

Appendices

September 7, 2001

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Dear Mr. Lavallée:

Re: First Report of the National Pollutant Release Inventory (NPRI) 2001- 2002 Multistakeholder Work Group on Substances; Comments and Recommendations

The following recommendations and comments address specific sections of the Work Group (WG) Report. (Sections are referenced accordingly.)

Section 2: Addition of Criteria Air Contaminants (CACs) to the NPRI for the 2002 Reporting Year

Recommendation #1

NGOs support Environment Canada's (EC) commitment to add Criteria Air Contaminants (CACs) to the NPRI for the reporting year 2002. The CACs to be added are Nitrogen Oxides (NO_x), Sulphur Oxides (SO_x), Carbon Monoxide (CO), Volatile Organic Compounds (VOCs), total particulate matter (TPM), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}).

Criteria Air Contaminants (CACs) are the most abundant air pollutants primarily responsible for acid rain and smog. These pollutants have adverse effects on the environment and human health, especially to asthmatics and those with cardio-vascular disease¹⁸. The need to add CACs is driven by health considerations and the need to acquire more comprehensive data to meet domestic and international requirements.

¹⁸ May 2001, the Government of Canada announced that Respirable Particulate Matter less than 10 microns is toxic under CEPA.

- **Thresholds for CACs (Section 2.2)**

Recommendation #2

NGOs strongly endorse the proposal by EC that NPRI adopt the Ontario reporting thresholds for CACs¹⁹.

These thresholds are substance-specific releases to air and are as follows:

NO_x (as NO₂), SO_x, and CO: 20 tonnes

VOCs: 10 tonnes (reported as total VOCs released)

TPM : 20 tonnes PM₁₀: 0.5 tonnes PM_{2.5}: 0.3 tonnes

Various threshold models were discussed, varying from a single trigger for any one of the CACs to individual substance-specific triggers. In consideration of the adverse health and environmental impacts of CACs, harmonization, and with regard to Canada's national and international obligations, the Ontario thresholds are the most appropriate for adoption by the NPRI²⁰. These thresholds yield a higher capture rate (90%) than the other models, particularly in populated areas, are based on scientific studies and have been reviewed.

Facilities in Ontario represent a significant proportion of the total number of facilities that report to the NPRI. Thus, the adoption of these thresholds helps achieve harmonization and simplification of reporting by these facilities²¹. A further justification to setting **national reporting thresholds** for CACs in common with Ontario is to capture those facilities that may not otherwise be required to report CACs if not triggered or required in their respective jurisdictions.

Recommendation #3

NGOs support common thresholds for NPRI and Ontario for CACs as a basis for harmonization of reporting and in addition as an incentive for other jurisdictions to set triggers that at minimum harmonize with the NPRI.

- **Volatile Organic Compounds (VOCs) (Section 2.3.4)**

Recommendation #4

NGOs support EC's proposal of reporting "total VOCs" at a 10 tonne release-based threshold (to air).

The total VOCs would be calculated based on overall emission factors to air for the given processes, or on measurement of total VOCs rather than as a sum of the releases of individual VOCs. Reporting "total VOCs" is consistent with the approach for reporting all CACs and with the approach to be used in Ontario.

¹⁹ The Ontario Ministry of Environment (MOE) mandatory reporting regulation (Reg 127/01).

²⁰ CWS for PM and Ozone, the Ozone Annex to the Canada-US Clean Air agreement, UNECE protocols, as current examples as well as requirements for modeling, science assessments and policy.

²¹ The Ontario regulation comes into force in 2001, one year prior to NPRI, allowing time for facilities to receive guidance.

This approach would include releases of individual VOCs currently listed on the NPRI²². Risks of “double-counting” could be addressed through segregated reporting approach and studies into VOCs speciation. Since CAC releases of VOCs are to air only, the “total VOC” reporting does not replace the need for the current reporting of multi-media releases of VOCs on the NPRI.

Recommendation #5

NGOs oppose the proposal by the Canadian Chemical Producers Association to establish a category of “other VOCs” that would include only VOCs species other than those listed on the NPRI that meet the current 10 tonne manufactured, processed or otherwise used (MPO) NPRI threshold.

- **Particulate Matter (Section 2.3.5)**

Recommendation #6

NGOs strongly support adopting the Ontario release thresholds for PM₁₀ and PM_{2.5}, namely 500 kg and 300 kg respectively.

While Work Group industry members expressed concern as to the large number of small facilities that would need to report with the possibility of submission of poor quality data and double-counting, NGOs believe that mandatory reporting through the NPRI is the strongest impetus to improve estimation methods is and that such matters are expected to be resolved in due course and should not be an obstacle to beginning and refining the reporting process with time.

Section 3: Other Data Elements with respect to CACs

Recommendation #7

NGOs support the approach proposed by Environment Canada as to “Temporal Variation and Stack Information”. (Sections 3.1 and 3.2)

- **VOCs Speciation (Section 3.3.1)**

The speciation of VOCs has been deferred from 2002 to the 2003 reporting year to allow time for research and analysis of possible approaches and clarification of several concerns that have been identified (e.g., double-counting). The Work Group has set up a sub-group on the speciation of VOCs to assist in the necessary work.

Recommendation #8

Given the postponement of VOCs speciation for reporting year 2002, NGOs urge that the sub-group pursue its work without delay in order to ensure that speciation of VOCs will be in place for the 2003 reporting year.

²² There are at least 98 VOC species listed individually on the 2001 report year and likely more candidates for addition in the future.

- **Combustion and Non-Combustion Data (Section 3.3.3)**

Recommendation #9

NGOs support disaggregation of CAC emissions into fuel combustion emissions and process emissions and the reporting of the percentile split from such facilities²³.

Such information contributes to identification and assessment of emission reduction opportunities and will be needed for greenhouse gas reporting.

Section 4: Review of Existing Exemptions

The addition of CACs to the NPRI is the main driver for reconsidering the current list of NPRI exemptions²⁴. The removal/modification of three exemptions is being proposed.

- **Facilities with Combustion Equipment (Section 4.2)**

Recommendation #10

NGOs support the recommendation that any facility with fuel combustion devices (e.g., boilers) with a cumulative nameplate capacity of greater than 3 million BTUs per hour should be subject to reporting CACs if triggered by the threshold for that CAC substance, regardless of the number of employees.

The proposed change would affect many facilities currently exempted from NPRI reporting, including education and training, research or testing, distribution of fuel, wholesale or retail sale, growing and harvesting of renewable resource, and mining.

Recommendation #11

NGOs recommend that the exemptions for NPRI reporting be removed for the following facilities:

- 1. Upstream oil and gas – major source of releases, e.g., sour gas well flaring.**
- 2. Mining - Extraction and processing phases -The U.S. TRI includes mining in its reporting requirements. The data from the mining activities demonstrates the significance of this sector in terms of its emissions and releases.**

- **Vehicle Maintenance and Repair Facilities (Section 4.3)**

Recommendation #12

NGOs support the modification of exemptions so that painting, stripping, major overhauls and other related activities (e.g., rust-proofing) are not exempted from reporting requirements for CACs or NPRI substances.

²³ Reporting requirements under various UN ECE protocols to which Canada is a signatory require disaggregation.

²⁴ The proposed changes to existing exemptions related to painting, stripping and major overhauls of transportation vehicles and fuel terminals are intended to apply to CACs and all NPRI substances.

In light of the significance of these facilities as sources of VOCs and other NPRI substances, it is important to remove their current exemption from NPRI reporting.

- **Facilities Engaged in Fuel Distribution, Storage or Retail (Section 4.4)**

Recommendation #13

NGOs support the modification of the exemption of such facilities in order that terminals²⁵ are not exempted from reporting CAC or NPRI substances.

Recommendation # 14

NGOs support the removing the existing NPRI thresholds for CACs²⁶.

Section 5: Recommended Substance-Related Changes for 2002 Reporting Year

- **Metals, Alternate Thresholds (ATHs) (Sections 5.1.1 and 5.1.2)**

The four metals under consideration include hexavalent chromium (proposed to be listed separately from chromium) and three other metals, namely, lead and tetraethyl lead, cadmium, and arsenic that are currently on the NPRI at the standard 10 tonne reporting threshold.

Environment Canada has proposed ATHs for these metals be as follows:

Hexavalent chromium – 50 kg

Lead and its Compounds, and tetraethyl lead – 50 kg

Cadmium and its Compounds – 5 kg

Arsenic and its compounds – 50 or 500 kg.

In all four cases, reductions to the concentration exemptions from the standard 1% to 0.1% have been proposed by Environment Canada.

The NGOs question whether the toxicity of these metals is sufficiently different to warrant order of magnitude differences in these thresholds. All four metals have been declared CEPA toxic. Cadmium, hexavalent chromium and inorganic arsenic compounds have been defined as human carcinogens by the International Agency for Research on Cancer (IARC). Lead is a persistent bioaccumulative toxin causing neurological, reproductive and cerebrovascular diseases. Some compounds of lead are carcinogenic.

Recommendation #15

NGOs support a consistent alternate threshold (ATH) of 5 kg for the four metals (hexavalent chromium, lead and tetraethyl lead, cadmium and its compounds, arsenic and its compounds) with no concentration exemptions in light of the degree of toxicity of these substances. NGOs reject the arguments advanced by the Mining

²⁵ A terminal is a primary distribution facility normally equipped with floating roof tanks that receives gasoline by pipeline, rail car or marine transfer.

²⁶ Currently, facilities with more than 20 000 hours employee time are required to report to the NPRI.

Association of Canada and other industry representatives questioning the treatment of lead as a persistent, bioaccumulative, inherently toxic (PB(i)T) substance²⁷.

- **Nickel and its Compounds**

Recommendation #16

Given the health considerations, NGOs believe that the threshold for nickel and its compounds should be lowered to 5 kg, similar to the four metals (hexavalent chromium, lead and tetraethyl lead, cadmium and its compounds and arsenic and its compounds) addressed in this report.

- **Municipal Wastewater Facilities (Section 5.2.1)**

Currently, there is limited reporting to the NPRI by Municipal Wastewater Facilities. *EC is proposing that a facility (collection system/lagoon/screening system/pumping stations/ etc.,) that discharges municipal wastewater (treated or untreated) at an average annual rate greater than 15 000 m³/day would be required to report to the NPRI, regardless of the number of hours worked by employees at the facility.*

This proposal ensures a capture rate of approximately 80% in terms of population but with only 7% of facilities (110) being captured. The maximum population of a municipality not captured is estimated to be 40 000. NGOs consider this level of capture to be inadequate and prefer a lower threshold that would capture more facilities.

Recommendation #17

NGOs support a flow rate threshold of 3 000 m³/day²⁸; the inclusion of “sewer networks” in the description of facilities; and reporting information as to the degree and nature of treatment carried out by these facilities.

While the possibility of double counting may exist if facilities report discharges to sewers as transfers and report releases from municipal wastewater systems separately, the latter may serve to highlight suspected gaps, e.g., industrial discharges to sewers.

Section 6.3: Greenhouse Gases (GHGs)

Recommendation #18

In order that reporting of greenhouse gases (GHGs) commences for the 2003 reporting year, NGOs urge the GHG sub-group to move ahead with the necessary work to ensure that the reporting of GHGs is ready without any further delays.

Emissions of greenhouse gases (GHGs) are causing global climate change, with dramatic environmental impacts projected worldwide. At the conclusion of international negotiations in Bonn, in July 2001, the government of Canada stated its hope of ratifying by early 2002 the Kyoto Protocol, as a result of which

²⁷ The term PB(i)T (Persistent Bioaccumulative inherently Toxic) itself needs further clarification and is under discussion. Nonetheless, NGOs support the **treatment** of lead as a PB(i)T.

²⁸ The lower flow rate trigger of 3 000 m³/day would capture 23% of all facilities (350) and over 90 % of the population, Section 4 table 1: Analysis of MUD database and flow based trigger for WW facilities.

Canada will need to significantly reduce its GHG emissions during the current decade. Key policy instruments to achieve this, especially a major economic instrument, will require mandatory reporting of GHG emissions at the corporate level to be put in place as soon as possible.

Sincerely,

Supported by the following organizations (Revised):

Mary McGrath (Canadian Environmental Defence Fund), ON
Paul Muldoon (Canadian Environmental Law Association), ON
Anne Mitchell (Canadian Institute for Environmental Law and Policy), ON
Dave Bennett, National Director, Health and Safety and Environment (Canadian Labour Congress), ON
Aaron Schneider (Centre for International Studies UCCB), NS
Doris Migus (Citizens' Clearinghouse on Waste Management), ON
John Jackson (Citizen's Network on Waste Management), ON
Linda Whalen (CLEANfld), NF
P. Tippet (Concerned Citizens of Saint John), NB
David Coon (Conservation Council of New Brunswick), NB
Arlene Kwasniak (Environmental Law Centre), AB
Stéphane Gingras (Great Lakes United), QC
Ruth Burton (Ontario Toxic Waste Research Coalition), ON
Mark Winfield/Matthew Bramley (Pembina Institute for Appropriate Development), AB/ON
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Anna Tilman (Save the Oak Ridges Moraine Coalition), ON
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Bruce Walker (STOP), QC
Keith Stewart (Toronto Environmental Alliance), ON

October 31, 2001

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From: NGO NPRI Work Group

Dear Mr. Lavallée:

Re: First Report of the National Pollutant Release Inventory (NPRI) 2001- 2002 Multistakeholder Work Group on Substances – Revised Draft (October 12, 2001); Comments and Recommendations

Firstly, we wish to reiterate and reaffirm our positions on issues addressed by the 18 recommendations and comments outlined in the NGO submission of September 7th, 2001. These recommendations received support from several NGOs (Document attached).

The following comments are directed specifically to the draft report of October 12, 2001 as well as issues raised at the Work Group meeting of September 24-25, 2001, the October 18 WG teleconference call, and Environment Canada's (EC) October 24th, 2001 follow-up memo.

Section 2.3: Thresholds for Criteria Air Contaminants (CACs): NGOs support EC's recommendations for the thresholds chosen for these substances, all of which are in accordance with NGO Recommendations #1-5.

Section 3.1: Temporal Variation: NGOs support EC's proposed format for temporal variation reporting profile. While EC is making operational forecasts for the entire country, these forecasts are only as good as the emissions data that are used in the model. NGOs do not support the request from Saskatchewan for exemption from CAC reporting in certain geographical areas. Whether or not emissions from Saskatchewan sources place that province or area in exceedance of the Canada-wide Standards (CWS) for ozone, nonetheless, these emissions will affect the air quality both within the province and in neighbouring jurisdictions and may place other areas in exceedance. Moreover, there is no safe level for ozone and it is in the public interest to know the daily ozone levels, regardless of whether they are above or below the CWS value.

Section 3.2: Stack Information: NGOs support EC's approach on stacks, the clarification of the definition of a major stack and its consideration of a "floor" below

which quantities of CACs would not have to be reported, provided the floor levels are set to be no more than 10% of the individual reporting thresholds for CACs.

Section 4.2: While EC has changed its initial recommendation for reporting of CACs from fuel combustion devices with capacity of 3 million BTUs per hour to 10 million BTUs per hour, NGOs emphasize their continued support for EC's initial recommendation of 3 million BTUs per hour (NGO Recommendation #10).

Section 5.2.1: While additional information and documentation has been received on Municipal Wastewater Facilities and flow-rate, NGOs continue to support retaining a flow rate threshold of 3 000 m³/day (NGO Recommendation #17). The definition of facilities for the purposes of determining flow rates needs to ensure that systems without treatment and multiple small outlets, and systems with a number of small treatment facilities are captured under the reporting requirements. We support the word attached to EC's October 24th memo with the exception of the 10,000 m³/day thresholds.

Section 5.1.1 to 5.1.2: Metals - Alternate Thresholds

In light of the degree of toxicity of these substances, NGOs strongly support a consistent threshold (ATH) of 5 kg for the four metals under discussion (hexavalent chromium, lead and tetraethyl lead, cadmium and its compounds, arsenic and its compounds) with no concentration exemptions (NGO Recommendation #15).

Note on Arsenic:

While the ATH recommended by EC for arsenic and its compounds is 50 kg rather than 500 kg as originally proposed in order to capture manufacturers of semi-conductors that may not otherwise be captured, concern over its relative toxicity requires an ATH of 5 kg.

Note on Lead:

Health Canada, commenting to the WG (September 28 e-mail from Lorraine Seed), has indicated that "even small releases of lead to the environment are of concern to human health since lead tends to accumulate in the skeleton and takes several decades to clear out. Certain physiological events such as pregnancy may mobilize lead stored in the skeleton, thereby resulting in exposure of the fetus to lead. In consideration of this effect in addition to the well-documented neurological effects in children following exposure to lead, defaulting to a lower threshold for lead is justified."

Early Data Release:

This issue was raised at the WG meeting September 24, 25 (refer to draft meeting minutes under section 10).

NGOs support EC's proposal to release NPRI raw data to the public for review and to establish a process for facilities to review its data and the uploading of the revised NPRI data to the website. (Note that Industry members of the WG support the use of NPRI data prior to official release of the entire database – e-mail, Oct 2, 2001, Peter Baltais).

Work of Sub-Groups for Reporting Year 2003:

Currently four sub-groups have been established with the purposes of presenting options for consideration to the NPRI WG as a whole.

- **Alternate Thresholds (ATHs) Framework** – to provide guidance to the WG members on conditions that warrant the listing of an NPRI substance at thresholds other than the standard 10 tonne MPO (at a concentration greater than 1%) (Section 6.1).
- **VOC-CAC Speciation Sub-Group** – to explore and identify options for collection of VOC and CAC speciation information to be incorporated into the NPRI for 2003 (Section 6.1).
- **Greenhouse Gases (GHGs) Subgroup**
The addition of GHGs was proposed for reporting year 2002 but has been delayed by a year. NGOs stress the need for the GHG sub-group to move ahead without any further delays with the necessary work to ensure that reporting of GHGs commences for the 2003 reporting year (Section 6.3).
- **Upstream Oil and Gas**– exempted to date from reporting, these facilities are a major source of releases of CACs and potentially other NPRI substances as well, e.g., sour gas well flaring. Included in this sector are such facilities as wells, oil and gas batteries, gas gathering compression plants, oil sands plants, and transmission and distribution lines.

While these groups are in various stages of progress, NGOs support the completion of the tasks of these sub-groups in due time for presentation and discussion by the Spring of 2002 without further delay, and in place for the reporting year of 2003. The ATH subgroup work is near completion and NGO representatives expect that it will be finalized shortly.

Issues and Priorities for the Year 2002:

- Addition of Radionuclides (e.g., those considered under CEPA for PSL2 and others of concern)
- Nickel – setting an alternate threshold of 5 kg
- Addition of thallium (re: base metal smelters), beryllium (thresholds)
- Substances named but postponed from the 2002 reporting year (section 6.4)
 - Mining sector – extraction, certain processing phases, tailings ponds, and waste rock disposal are currently exempted from reporting under NPRI. These are significant sources of CACs including PM, as well as other pollutants, particularly as a result of acid mine drainage. The U.S. TRI includes mining in its reporting requirements. The data from the US mining sector demonstrates its significance in terms of emissions and releases. Removal of these exemptions should be a priority for year 2002.

Section 5.2.4: Qualitative Reporting of Pollution Prevention (P2) Activities

NGOs support reporting P2 activities in a more detailed way and improvements as suggested by Environment Canada that would help with clarification and interpretation of P2 terminology. Suggested improvements by EC include two additional questions intended to determine if facilities are engaged in pollution prevention planning.

Furthermore, NGOs recommend that life cycle analyses and management of substances, in particular CEPA Track 2 substances, would be a valuable component of P2 studies.

Section 2.2.4 Provincial Input:

The absence of many of the provinces from participation in NPRI WG meetings has been remarked upon several times by most of the WG members. Harmonization efforts between NPRI and the provinces are generally considered advisable. However, NGOs cannot support harmonization at the expense of the weakening of reporting requirements. NGOs regard the NPRI as the national program that provides a common national data set in relation to which provinces may establish additional reporting requirements of their own.

In its final report to the NPRI, NGOs will further elaborate on these issues and make recommendations for the work for the next year.

Sincerely,

Supported by the NGO members of the WG:

Mary McGrath (Canadian Environmental Defence Fund), ON

John Jackson (Citizens Network on Waste Management), ON

Linda Whalen (CLEANfld), NF

Mark Winfield/Matthew Bramley (Pembina Institute for Appropriate Development),
AB/ON

Anna Tilman (Save the Oak Ridges Moraine Coalition), ON

Bruce Walker (STOP), QC

Keith Stewart (Toronto Environmental Alliance), ON