

Application of the National Pollutant Release Inventory for Substances to Post-Categorization

Linking Categorized Substances to the NPRI

ENGO Position Paper

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A. Introduction

This paper discusses the rationale for applying the National Pollutant Release Inventory (NPRI) to chemicals identified by the categorization Domestic Substances List (DSL) and issues that need to be addressed in the NPRI to make this linkage possible.

Under the Canadian Environmental Protection Act (CEPA 1999), Health Canada and Environment Canada were mandated to categorize 23,000 substances listed on the Domestic Substance List (DSL) by September 2006. These substances were in commercial use in Canada in the mid-1980s but had never undergone assessment. They are, in a sense, “legacy” substances.

This categorization exercise was unprecedented in industrial society, and, while taking seven years to complete, has been a major achievement in taking stock of the thousands of substances that may be in commerce in Canada and identifying and prioritizing for further attention those substances of concern to human health and/or the environment. The results of this exercise is the identification of over 4,000 substances were found to have characteristics that may cause harm to human health and/or the environment and that require further action.

This sobering finding speaks to the need to protect Canadians and their environment from risks associated with these chemicals and the need to establish an agenda that effectively aims to prevent releases and exposure of these substances and, in many cases, eliminating their use. It also speaks to the need to have on-going monitoring of the releases and transfers of these substances.

B. Post-Categorization – Chemical Management Plan

In December 2006, the Federal Government announced The Chemical Management Plan (CMP), which is designed to address the results of categorization. Under this Plan, substances have been prioritized primarily on the degree of risks /hazards posed and exposure data¹.

¹ Refer to www.chemicalsubstances.gc.ca for information on the CMP and updates.

Approximately 500 substances are designated as high priorities for action. These substances have characteristics that indicate they are persistent, bioaccumulative **and** inherently toxic to non-human organisms (PBiT), or pose a high hazard to human health. Another 2,600 substances are designated as “medium priority”, while 1,200 substances are considered to be of “low concern”.

However, very limited and out-dated information exists on many of the categorized substances and this information is not readily accessible to the public, nor in a form that is useful in terms of tracking releases of these substances to the environment, trends, pollution prevention actions and so on.

The current focus of the CMP is on establishing management regimes over the next three years to address the high priority substances. These substances are being addressed through a number of mechanisms². In particular, the “Challenge” program is designed to seek out additional information on 193 of these high priority substances over a 3-year period³.

As yet, no plan has been released to address those substances considered to be of “medium priority”. There is major concern the environmental community that the “low concern” substances will be dealt with swiftly under a “rapid screening program” and that most of these 1200 substances will be essentially eliminated from further consideration.

Whatever measures are decided upon to “manage” these substances needs to be subject to public scrutiny. Public participation and access to information are critical components to ensure that there is effective engagement by the public.

C. Status on the NPRI

The NPRI is an annual mandatory facility-based public reporting system (under section 46, CEPA 1999) on a number of pollutants released to the environment. The inventory provides the public with access to information that is not otherwise readily available on releases and transfers of chemicals in their community, workplace or other areas in which they have a concern and interest⁴.

For those facilities that meet reporting requirements, releases are reported to air, water, land, as well as transfers, disposal and recycling activities. Reporting is mainly triggered by a set of different thresholds depending on the substance and/or activity and is based on the amounts of the substance that is manufactured, produced or otherwise used, or in some cases, release levels. The conventional threshold, and the one for most substances

² Refer to www.chemicalsubstances.gc.ca for more information on the Challenge program. Other components to address the top priority substances include: significant new activity controls (SNACs), the petroleum sector stream, and substances that are already in the assessment and management stream.

³ These substances, along with their chemical profiles, are being published in batches of 15-30 substances every three months over a 3 year period. (Batch 1 was released February 3, 2007).

⁴ http://www.ec.gc.ca/pdb/npri/npri_online_data_e.cfm.

listed on the NPRI is the 10 tonne manufactures, released or otherwise used (M,P,O)⁵. As of 2006, reporting to NPRI is required on 367 substances.

While the NPRI is a useful tool to track emission trends, pollution prevention strategies, the environmental performance of specific industrial sectors; and in disseminating information to the public and raising public awareness, it is under-utilized in a number of ways, such as in its potential capacity to track progress in pollution prevention and trends in emissions. It is also limited to release and transfer data for a select number of substances and the number and size of facilities that report.

D. Linking the NPRI to Categorization

Over the years, stakeholders have expressed a need to use the data from NPRI to evaluate effectiveness of current policies and regulations aimed at management of toxic substances. At the same time, the lack of current information on some of the most hazardous substances identified by categorization stress the need for a mandatory reporting mechanism to track these substances and that is best done by using the *existing* public reporting instrument, namely, the NPRI.

The NPRI should be considered as a useful and effective tool in providing some essential information on substances that have been identified through categorization, information that is otherwise lacking, outdated and not publicly transparent.

The results of categorization present an opportunity to improve the use and scope of NPRI to track progress on reductions in releases of these substances and informing the priority setting process for moving toward screening assessments and decisions on these substances.

The challenge of addressing the post-categorization substances necessitates several improvements to the NPRI program and removal of restrictions in reporting that have become significant obstacles to providing a better picture of pollutants in our environment. These include but are not limited to:

- Thresholds for reporting
- Removing exemptions for specific facilities
- Requiring more information on pollution prevention activities
- Improving data quality.

It is also necessary to have a stakeholder mechanism in place to examine the most efficient and effective means to address the matter of the inclusion of categorized substances on the NPRI.

⁵ Prior to 2000, all substances listed in National Pollutant Release Inventory (NPRI) had common reporting criteria: 10 tonnes manufactured, processed or otherwise used at a concentration of 1% or more, except for by-products, referred to as the conventional M, P, O threshold. In addition, a facility would have reported the substance to the NPRI only if the 20,000-hour per year employee threshold was exceeded.

E. Status on High-Priority Categorized Substances on the NPRI

A comparison of the NPRI substance list with the substances listed in the “Challenge” program reveal that only 31 of the 193 substances are listed on the NPRI as discrete substances⁶. An additional 19 substances are found within groups of substances that are listed on the NPRI. Of the 30 Batch 1 and Batch 2 substances, 13 are listed on the NPRI. These substances have been identified as a high hazard to humans and of high likelihood of exposure to Canadians. None are PBiTs.

What is even more disturbing is that even for those substances listed on NPRI, the data on releases and transfers of Batch 1 substances is very limited and likely not reliable.

F. Relevancy of NPRI on Other Substances identified through Categorization

The following section provides rationale to further government efforts in integrating substances identified through categorization under NPRI program.

Contribution to development of management regimes: A number of the categorized substances designated as high priority lack information, have outdated information, or have no systematic method of tracking uses and releases. Such information would better inform strategies to “manage” these substances and serve as a means of validating whether such strategies are accomplishing what they are purported to do – such as virtual elimination, prohibition, pollution prevention, etc.

Coordination with existing “Challenge” questionnaire: NPRI-like information is requested for the voluntary “Challenge” questionnaire for high priority substances, but there are inconsistencies with thresholds for reporting to the NPRI and those thresholds in the questionnaire. There is value in addressing these inconsistencies at the beginning part of the process. Another issue of concern with the existing questionnaire relates to the voluntary nature of the questionnaire. It does not provide the public transparency of a mandatory system such as the NPRI.

Identifying substances for priority action: The proposed use of the rapid screening tool included in the Chemicals Management Plan to address substances of “low ecological concern” is a very specific aspect of the Plan that would benefit significantly from the utilization of the NPRI for updated data on releases and transfers of these substances.

Other issues of concern:

- Substances may no longer be found in commerce but may still be released to the environment
- There are no means of tracking these substances in products.
- Information on substances in the “Challenge” program is sparse and outdated (see technical profiles).

⁶ A survey of the 30 Batch 1 and Batch 2 substances shows that 8 of the Batch 1 substances and 5 of those in Batch 2 are listed on the NPRI. Refer to the attached spreadsheet on the 193 Challenge Substances.

- There is no government plan to date as to how to deal with the 2,600 “medium priority” substances. Nor is there a mechanism to track these and low-priority substances.
- For some substances, there are no Chemical Abstract Service (CAS) numbers, which may be due to trade secrets. This is an obstacle to finding out information on such substances.

G. Summary - *Linking Categorized Substances to the NPRI*

The results of categorization present an opportunity to improve the use and scope of NPRI. Over the years, stakeholders have expressed a need to use the data from NPRI to evaluate effectiveness of current policies and regulations aimed at management of toxic substances. The results of the categorization process and Canada’s Chemical Management Plan have created some opportunities to track progress on reductions in releases of these substances, informing the priority setting process for moving toward screening assessments and decisions on these substances. At the same time, the dearth of information and the lack of current information on some of the most hazardous substances identified by categorization stress the need for a mandatory reporting mechanism to track these substances.

Linking the categorized substances to the NPRI is a strong component of the Public Right-to-Know. The challenge before the government is not a matter of which substances should be added to the NPRI but how these substances can be added and in what timeframe. At the same time, it is critical that government make decisions in a timely manner after consultation.

H. Recommendations

Adjustments to the NPRI beyond adding substances are needed to incorporate the categorized substances. A systematic mechanism needs to be developed to carry out this task and would require substantive discussions within the NPRI Working Group.

ENGOs support the following recommendations:

- 1) It is imperative that the NPRI Working Group (WG) investigate the results of categorization for the purposes of adding these substances to the NPRI forthwith.
- 2) The WG should be given the responsibility and adequate resources to work on integrating the substances identified through the categorization process.
- 3) The NPRI program should be expanded to include reporting of all substances identified through categorization.

- i) It is essential that the 193 substances in the “Challenge” program be listed and tracked through the NPRI.
 - ii) All high-priority substances, in addition to the Challenge substances, must be discussed and dealt with at the NPRI WG level.
 - iii) Furthermore, the application of the NPRI program is highly relevant to tracking substances in the government’s proposed approach to address 1,200 low concern substances.
 - iv) A similar approach should be adopted for the medium priority substances for which no plan for action by the government has been released.
- 4) A review of thresholds for reporting on these substances in addition to substances already being reported to the NPRI is critical⁷.
- 5) Caution must be exercised in deletion of substances. Because a substance is no longer in use, it does not mean that there are no releases to the environment.
- 6) Efforts to improve the quality of data are needed overall.
- 7) Communication between government departments working on post-categorization and the NPRI need to be improved.
- 8) Other aspects of the NPRI that require improvements include:
 - i) an enhancement of mandatory reporting in NPRI on pollution prevention activities;
 - ii) removal of exemptions from reporting; and
 - iii) the addition of direct links to health and environmental issues for each substance being reported.

⁷ Note: An Alternate Threshold (ATH) sub-group of the NPRI Working Group currently exists, but its mandate needs to be re-examined to incorporate this aspect.