

Pollution Prevention & NPRI – ENGO Assessment

Submitted to: National Pollutant Release Inventory, Environment and Climate Change Canada

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Part 1: Our Purpose

Pollution Prevention is at the top of the hierarchy in terms of being the most effective way to avoid contamination of the environment and threats to life because it means not using or creating toxic substances in the first place. Unfortunately, the top of the hierarchy is also the narrowest part of the pyramid showing how toxic materials are dealt with, meaning that we are extremely far from achieving the potential of pollution prevention.

The National Pollutant Release Inventory (NPRI) requires polluters to report on pollution prevention. This could be a valuable way for us to measure progress on pollution prevention and could create pressure for polluters and governments to put more focus on pollution prevention. In March 2022, NPRI staff at Environment and Climate Change Canada (ECCC) stated their intent “to engage stakeholders on a review of the current P2 reporting form, once the 2021 data collection exercise is completed.”¹ This document is our evaluation of the effectiveness of NPRI at gathering information on pollution prevention and making it easily available to the public. It also includes our recommendations for ways to make the P2 provisions in NPRI more effective and accessible to users and evaluating progress on preventing pollution by facilities.

Part 2: What is Pollution Prevention

Pollution prevention is a phrase that is often confused with pollution control. The two are often used as if they were interchangeable. The U.S. Environmental Protection Agency says: “Pollution prevention means taking action to reduce the use of toxics and other potentially harmful materials at the beginning of a process or operation.”² The distinguishing factor from pollution control is that in pollution prevention the action is taken “at the beginning of a process or operation.” Pollution prevention is much more effective at avoiding contamination because P2 actions focus on eliminating or substantially reducing the use or generation of a substance in the process at all. In contrast, pollution control tries to catch the substances to avoid their release after they have been used or created. Despite the best efforts, the control mechanisms can only be a partial solution because inevitably some of the toxic substances will be released or transferred. The goal in pollution prevention is always to eliminate the use and creation of toxic substances. In pollution control, reduction is the goal – not elimination.

Part 2A: Why Pollution Prevention is Essential

It is probably in the Great Lakes basin that we have had the most serious discussion on pollution prevention because of the virtual elimination and zero discharge goals of the Great Lakes Water

¹ Environment and Climate Change Canada, *Work Plan for the NPRI Multi-Stakeholder Work Group Activities for 2022, 2023 and 2024, Version 1: March 2022*.

² <https://portal.ct.gov/DEEP/Permits-and-Licenses/Permitting-Factsheets/Pollution-Prevention-Fact-Sheet>

Quality Agreement (GLWQA) between Canada and the United States.³ In July 1990, the International Joint Commission (IJC) created the Virtual Elimination Task Force, which spent three intense years developing its report.⁴ The diverse Task Force had members from government, university faculty from a range of disciplines, environmental non-government organizations, and industries. The Task Force also conferred with the broader Great Lakes community. The Task Force report was endorsed by all its members.

The Task Force concluded that “the zero discharge philosophy implies adopting measures to eliminate any use or synthesis, or its existence anywhere in society.”⁵ Their sense of urgency was based upon the following assessment of the condition of the Great Lakes basin:

Because some persistent toxic substances are already present in the ecosystem, and because life in the Great Lakes Basin Ecosystem is vulnerable to contamination from persistent toxic substances, implementation of the virtual elimination strategy requires that the policy of zero discharge be applied to prevent further releases from all sources of persistent toxic substances.⁶

Unfortunately, the same substances are in use across Canada and are posing the same threats everywhere. Therefore, the same principles, including elimination and pollution prevention as used in the Great Lakes are relevant across the country.

The IJC Task Force observed the following major limitation in our current approach: “*Even after injury has been established, the traditional focus has been on **management and control of releases, rather than prevention.***”⁷ They went on to explain the distinction between pollution control and pollution prevention: “Pollution control reactively addresses the problem once the substances have been used or generated. Prevention attempts to avoid use or generation in the first place through process change, product reformulation, and raw material substitution.”⁸

Twenty years later, a group of scientists in the Great Lakes basin have reinforced the importance of the prevention approach in their article “Leadership for the next generation of Great Lakes stewardship:”

We are learning more about the severe consequences of even low levels of Persistent Bioaccumulative Toxins (PBTs), as well as hormone disruptors and other chemicals for which the dilution power of water in the region is not enough to meaningfully reduce impact. Current Great Lakes policies were designed mainly to address concentrated “point source” pollution. Traditional approaches that rely on treatment and discharge

³ Canada and the United States, *Great Lakes Water Quality Agreement*, 1978, 1987, 2012.

⁴ *A Strategy for Virtual Elimination of Persistent Toxic Substances*, Volume 1, Report of the Virtual Elimination Task Force to the International Joint Commission, August 1993.

⁵ *Ibid.*, p. 10.

⁶ *Ibid.*

⁷ *Ibid.*, p. 13.

⁸ *Ibid.*, p. 14.

regulation work far less well, if at all, with powerful and dispersed contaminants, including nutrients from agricultural runoff and microplastics.⁹

The definition of pollution prevention should not include pollution control methods. They are very different types of actions and differ dramatically in their end goals and effectiveness at protecting the environment and the health of all life.

Pollution prevention plans should target substances that are persistent, bioaccumulative, and toxic, which may include developmental-reproductive substances, carcinogens, endocrine disrupting substances and metals because they are particularly damaging to the environment and all life even in very small quantities and are known to accumulate in the environment and in living bodies overtime. The substances that should be the focus of pollution control are generally of a different type of threat to the environment – one in which our objective is generally to reduce the release, not eliminate its use or generation. Among these substances are VOCs, particulate matter, and nitrogen oxides.

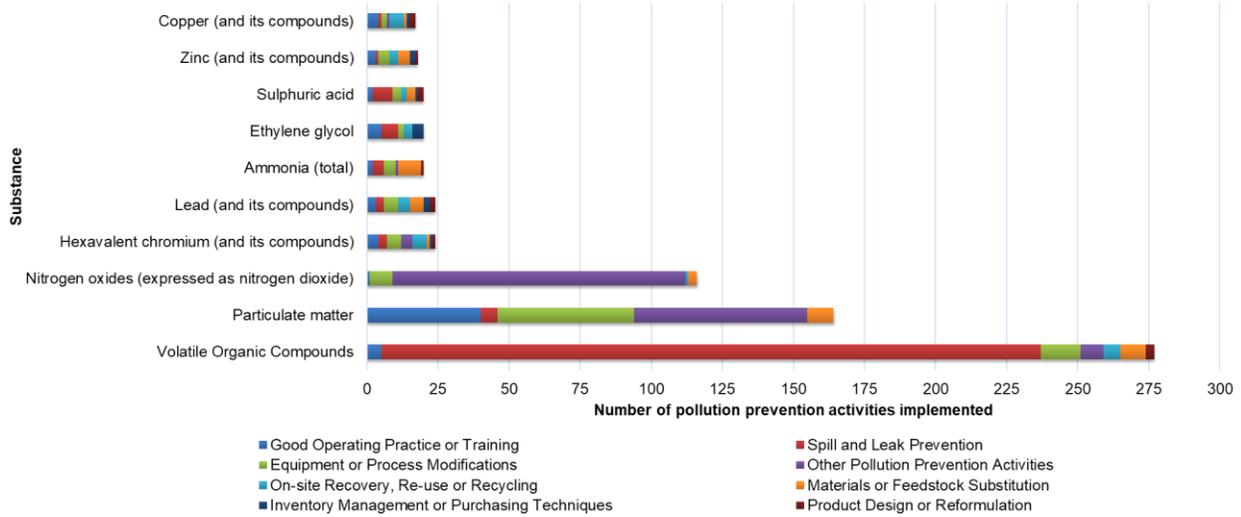
ECCC analyzed the number of reports for 2022 of what they call “P2” activities per substance. [See Chart 1 below.] VOCs (275 activities), particulate matter (170 activities), and nitrogen oxides (120 activities) totally overwhelm the number of activities for other substances. Each of the other substances listed on the chart has 25 or fewer activities. Including these three substances gives a very distorted impression of the extent to which P2 activities are being carried out with a goal of elimination – true P2.

This is not to say that it isn’t excellent that control actions are being carried out. Both P2 and pollution control are important activities, but they should be reported separately from the NPRI because their goals are very different and the problems they are addressing are quite different.

⁹ Shriberg, Mike, et al, Leadership for the next generation of Great Lakes stewardship,” *Journal of Great Lakes Research*, July 2023,

CHART 1: ANALYSIS OF 2022 ACTIVITY DESCRIPTIONS: P2 ACTIVITIES/SUBSTANCE¹⁰

P2 activities and the corresponding techniques reported per substance



Source: NPRI, <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/tools-resources-data/fact-sheet.html#toc4>

Therefore, the NPRI should require pollutant reporters to report on their pollution prevention plans and activities separately from their pollution control plans and activities.

Part 2B: How NPRI defines Pollution Prevention

The seven types of activities that NPRI defines as pollution prevention are a mix of pollution prevention and pollution control activities often intermixed under the same type of activity:

- substituting materials or feedstock;
- redesigning or reformulating products;
- changing equipment or processes;
- preventing spills or leaks;
- changing inventory management and purchasing practices;
- reusing, recycling, and recovering on-site; and
- improving operating practices and providing training.¹¹

¹⁰ Claudia Dias & Juliana Galvis-Amaya, ECCC, Pollution Prevention Overview, October 2023.

¹¹ *The 7 Pollution Prevention Techniques*, Environment and Climate Change Canada. No date given.

The first three of these (substituting materials or feedstock, redesigning or reformulating products, and changing equipment or processes) are likely to be pollution prevention type activities, although “changing equipment or processes” won’t necessarily be prevention. The latter four, however, are pollution control type activities. The latter four activities were by far the most frequently reported techniques, i.e., pollution control methods. The NPRI reports also include a major “Other Pollution Prevention Activities” category; this is the third largest category for number of activities. (see Chart 2, below) It is doubtful that this category is true P2.



P2 Activities based on substances for 2022

P2 Activities -Substances	Percentage
Materials or Feedstock Substitution	6
Product Design or Reformulation	2
Equipment or Process Modifications	12
Spill and Leak Prevention	38
On-site Recovery, Re-use or Recycling	4
Inventory Management or Purchasing Techniques	1
Good Operating Practice or Training	7
Other Pollution Prevention Activities	29

Based on P2 activities for substances in 2022, Materials or Feedstock Substitution, Product Design or Reformulation Equipment or Process Modifications account for 20% of the so-called “P2” activities on substances, while almost 80% would be considered pollution control methods.

Part 2C: How Canadian Environmental Protection Act (CEPA) defines Pollution Prevention

CEPA defines pollution prevention as follows:

pollution prevention means the use of processes, practices, materials, products, substances or energy that avoid or minimize the creation of pollutants and waste and reduce the overall risk to the environment or human health.¹²

This is the same as the definition that NPRI gives for pollution prevention in its glossary of terms.¹³ However, as we described in Section 2B, the activities that NPRI lists are inconsistent with the CEPA definition.

We will return to CEPA in the section on Pollution Prevention Plans in CEPA (section 4B)

Part 2D: How the U.S Toxics Release Inventory (TRI) defines Pollution Prevention

The U.S. TRI is the equivalent program to Canada's NPRI. As we said at the beginning of Part 2, EPA describes pollution prevention as: "Pollution prevention means taking action to reduce the use of toxics and other potentially harmful materials at the beginning of a process or operation."¹⁴ In TRI they define P2 as follows: "P2, also known as 'source reduction', is any practice that reduces, eliminates, or prevents the creation of pollution and its release into the environment or a waste stream prior to recycling, treatment, or disposal."¹⁵ Consistent with the EPA's definition, they focus on activities "at the beginning of a process or operation." Therefore, the TRI excludes "recycling, treatment or disposal" from its P2 activities, whereas the NPRI includes "reusing, recycling and recovering on-site" in its P2 definition.

Recommendation 1: Pollution Prevention and Pollution Control should be reported to the NPRI separately, with the Pollution Prevention definition being kept very strictly focused on methods that attempt to eliminate the use and generation of toxic substances.

This means that the reporting form for facilities should be revised. The form must put Pollution Prevention and Pollution Control into separate questions with each question beginning with a clear definition of what fits into each category. Also, the facilities' reporting form should require that all activities that the reporter completed should be reported separately under the Pollution Prevention and the Pollution Control questions.

¹² *Canadian Environmental Protection Act 1999 (S.C. 1999, c. 33)*, current to 2023-08-21

¹³ <https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/glossary-terms.html#p>

¹⁴ <https://portal.ct.gov/DEEP/Permits-and-Licenses/Permitting-Factsheets/Pollution-Prevention-Fact-Sheet>

¹⁵ *Pollution Prevention (P2) and TRI*, US EPA, 2023, <https://www.epa.gov/toxics-release-inventory-tri-program/pollution-prevention-p2-and-tri>

The rest of this paper focuses on assessing how well NPRI reporting provides information to the public on achieving Pollution Prevention (P2) goals – not on pollution control objectives.

Part 3: What the public wants to know

A major purpose of NPRI reporting is to support community right-to-know. This also applies to the P2 reporting under NPRI. For example,

- knowing what P2 activities a facility in your community is taking, if any, and being able to see how they compare with other facilities in the same sector can be very valuable in helping you know what you should ask your local facility to do to better protect your community.
- knowing how well particular sectors are doing in implementing P2 activities can help you know what kinds of actions should be taken to improve the situation.
- Still others, who are focused on the problems created by a particular toxic substance, may want to be able to check to see to what extent facilities are taking P2 activities to solve the problem and what activities they are taking. This can help them be more able to advocate for P2 activities on that substance.
- still others might want to be able to see to what extent a particular CEPA P2 plan has reduced releases and transfers under a CEPA P2 plan and to be able to determine which types of activities were most effective at achieving the reductions.

These are just a few examples of why the NPRI P2 provisions are important for improving community right-to-know. The knowledge gained from P2 provisions in the NPRI can put the public in a position to be a better advocate for essential actions to better protect the environment and all life.

In carrying out our assessment, these are the major characteristics that we looked for:

- Is the information easily accessible to the public?
- Is it easy to manipulate the data to carry out analyses and evaluations?
- Can the public obtain the P2 information separately from the pollution control information?
- Does a facility have a P2 Plan?
 - Is it a voluntary plan? or a plan required under CEPA? or a plan required by a different jurisdiction?
 - Does the facility provide a link to the P2 plan, if they have one?
 - Does the facility provide data on progress towards achieving the P2 goals?
 - Does the data show the extent to which the target substances each decreased or increased?
- For each substance, is the information provided for which P2 activities were used?
 - Can you tell from the data which activities had the most impact on achieving the P2 goal?
 - If the activity taken was substitution, what substance replaced it?
 - If the activity was process changes, what process changes were taken?

- Is the information available separately for each substance?
- Is the information available by each facility?
- Is the information available by each sector?
- Is the information available for all facilities within a community or region?
- Is the information available over the range of years?
- Does the data show the extent to which the target substances each decreased or increased?
- Is it easy to do cross-searches, e.g., a search for all facilities with P2 activities for a specific substance?
- Is it possible to do an overall analysis that shows which P2 activities were most effective for a specific substance and/or in a particular sector?

All of this information is essential not just for concerned community activists and ENGOs. It is also essential for governments, industries, and academics. Having access to all of this information will allow all sectors to learn what makes for effective P2 programs and what will need to change to make them more effective.

Part 4: Searching for P2 Information on NPRI

Over the past several months, we have made considerable efforts to test the NPRI website to answer the types of questions in Part 3. We used two approaches: 1) doing quick simple searches - the approach most people will take in community right-to-know; and 2) doing very in-depth lengthy searches and compilations of information using the NPRI tools. Over that time, the two of us have spent an estimated combined time of one hundred hours searching P2 data on the NPRI website.

In this section we will provide our observations from those searches and make recommendations for improving the P2 section of the NPRI.

In March 2023, the ENGO members of the NPRI Multi-Stakeholder Work Group sent NPRI a compilation of our difficulties with doing searches on the NPRI site. Those were not related directly to P2. However, many of the same problems arose for us as we did the P2 work, e.g., challenges to find specific facilities. [See: NGO submission: Comments on NPRI searches and websites - January 23, 2023] We will not repeat those items here but will stay focused on matters directly related to the P2 section of NPRI.

Part 4A: Reliability of Information being Present in Report

One of the most difficult and frustrating aspects of searching on the NPRI for P2 information is the lack of certainty that information will be there. The most reliable item available on the Search tool of NPRI is the answer to the first question in the NPRI P2 Reporting Module: “Does the facility have a documented pollution prevention plan.” Here they state whether it is

voluntary, or if plan was prepared or implemented for another government jurisdiction or Parliament, or under CEPA P2 planning provisions.

Frequently, the only question answered is whether they have a plan. Usually, even if they say they have a plan under one of those categories, the facility report does not provide important information such as:

- what NPRI specific substances are the focus of the P2 Plan?
- what are the P2 targets?
- what activities were taken and the target of the activity?
- what specifically was done in the activity, e.g., what substance replaced the substance that was the target of the P2 plan? What process change was made and what substance(s) did it affect?
- how much were the releases and transfers of the specified substances reduced as a result of the P2 plan?

Based on information available through the NPRI search tool for facility reports, we question why we are not getting consistently more complete information. One of the reasons is that most questions do not “require” an answer. Instead in most cases, NPRI “encourages” that information be provided.

The 2022-2024 Guide for Reporting to the National Pollutant Release Inventory says that for P2 activities:

“Facilities are **required** to report:

- Whether and why a pollution prevention (P2) part was prepared;
- The name of the P2 notice, jurisdiction, or program for which the P2 plan is required;
- Information on P2 activities undertaken during the year; and
- The substances for which the P2 activities were undertaken.

Facilities are **encouraged** to provide a brief description of their P2 plan and they will be able to indicate if their P2 plan was prepared or implemented for an association or industry-led program.” [bolding added to this quote]¹⁶

Prior to 2022 facilities were **not** required to report substances for which P2 activities were taken.¹⁷ In return for requiring information on the specific substances on which P2 activities were taken, ECCC promised to reduce the burden on reporters: “in order to limit reporting burden in light of these proposed changes, ECCC is also proposing to reduce the number of questions relating to P2 plans.”¹⁸ This is a classic taking one step forward and taking steps backward at the same time.

¹⁶ Environment and Climate Change Canada, Guide for reporting to the National Pollutant Release Inventory, 2022-2024, section 4.5

¹⁷ Environment and Climate Change Canada, Proposed Changes to National Pollutant Release Inventory Reporting Requirements for 2020-2021. Appendix 12 New requirements for reporting pollution prevention information to the National Pollutant Release Inventory – Consultation document May 2019, p. 1.

¹⁸ Ibid.

We were pleased to see the requirement to state the specific substances for which the activities were undertaken. This requirement was in effect as of the 2022 reporting year. But distressingly, when we checked out 2022 data, in all searches we conducted the specific substances were not provided in the facility reports that are accessible through the search tool.

This points toward the need for enforcement of the P2 provisions in NPRI.

Recommendation 2: Facility reporters should be required to fill in all parts in the NPRI P2 module.

Recommendation 3: NPRI staff should carefully assess the completeness of the P2 modules that the reporters fill in and ensure that the reports are fully completed.

Adding to the lack of reliability is that sometimes when you look up a facility to see whether they have a P2 plan, etc., you find they don't have a P2 report, but if you look up the facility through a different NPRI tool, you find they do have a report, e.g., Stelco. This kind of inconsistency between the NPRI tools is a major problem for users.

Part 4B: CEPA Pollution Prevention (P2) Planning Notices

NPRI P2 reporting highlights CEPA P2 Planning requirements. Does NPRI P2 reporting help in making the assessment of progress and success under a CEPA P2 Plan?

The *Canadian Environmental Protection Act* uses Pollution Prevention Plans as a risk management tool for substances found to be toxic under the Act. Currently, ten Pollution Prevention Plan Notices are in effect under CEPA, while nine P2 Plans are no longer in effect. NPRI data has been used to assess progress in the implementation of the P2 Plans. The NPRI requires reporting on many of the substances covered under CEPA P2 plans. However, there are substances required or proposed under CEPA P2 plans that are not reported under NPRI, including siloxane D4 in industrial effluent, dental amalgam waste for mercury, mercury switches in end-of-life vehicles, and primary plastic packaging.

The NPRI does not provide necessary pollution data and information to assess with certainty whether the objectives of CEPA P2 plans are being achieved since NPRI reporting requirements do not cover all sources of releases such as from products (relevant for mercury) and does not require reporting on some substances subject to P2 Plans (e.g., siloxane D4 and primary plastic packaging).

Our efforts to explore NPRI to assess data associated with CEPA P2 plans demonstrated that the NPRI data does not provide consistent information to assess progress and achievement of objectives of CEPA P2 plans. We explored NPRI data for CEPA P2 plans for Acrylonitrile and Hydrazine. Here are a several observations:

- 1) Using the NPRI Search tool and selecting for P2 plans or P2 activities for facilities requiring CEPA P2 plans did not result in identifying all facilities that are subject to the CEPA P2 plans (e.g. Hydrazine, acrylonitrile). For example, search for P2 plans for hydrazine for 2020 for electric sector identified one facility (New Brunswick Power Corporation). New Brunswick Power Corporation indicated P2 plans but did not specify if they are CEPA P2 plans. However, under the Online Search - Pollution Prevention Planning Reports for Hydrazine, the results show Manitoba Hydro has completed its declaration for implementation under Schedule 5 (see: <https://pollution-waste.canada.ca/pollution-prevention-reports/?GoCTemplateCulture=en-CA>). The NPRI search tool for P2 plans does not include Manitoba Hydro (various NPRI IDs) but this facility reports to NPRI. This facility did not report on P2 plans or P2 activities (example see report for 2021 for this facility): <https://pollution-waste.canada.ca/national-release-inventory/2021/821>)
- 2) Facility details for declaring P2 plans under CEPA is inconsistent or not provided. One facility in Ontario was identified for CEPA P2 plans for acrylonitrile, i.e., Lanxess (NPRI ID 1944) in 2004 and again in 2005). Lanxess was previously named Bayer Inc. Facility details did not disclose CEPA P2 plans.(see table 1, below)
- 3) Facility details do not include the name of substance(s) that are covered by CEPA P2 plans
- 4) Conducting searches for CEPA P2 plans under NPRI is not easy if facilities change names (e.g., Bayer and Lanxess 2003-2006 for NPRI ID 1944 subject to CEPA P2 Plans for acrylonitrile). Users need to know NPRI ID to do this search. (see table 1)
- 5) Facilities with CEPA P2 plans under NPRI do not provide specific information on P2 plans and P2 activities. However, their final reports to the government on their P2 plans indicate that reductions were completed using P2 activities. The Final Report: Pollution Prevention Planning and Acrylonitrile (2009) (see: <https://www.ec.gc.ca/planp2-p2plan/58F5925A-30C9-411B-8C24-696BDBCCE60B/Acrylonitrile%20Final%20Report%20July%202009.pdf>) outlined that specific P2 activities were undertaken to reduce acrylonitrile.
- 6) CEPA P2 plans may outline objectives that require specific concentrations to be achieved. The NPRI data is presented in volume rather than concentrations for releases. This approach makes it difficult to conduct analysis on NPRI data for some substances in CEPA P2 plans (e.g., Hydrazine is an example where objectives are focused on specific concentrations)

Table 1: NPRI ID 1944 (2003 -2006) for releases and transfers for acrylonitrile

NPRI ID	GH GRP ID	Year	Company	Facility	City	Province	NAICS	P2 Plan	P2 Activity	Unit	Air	Water	Land	Total	On-site	Off-site	Total Disposal	Off-site treatment	Off-site recycling
1944		2003	BAYER INC.	BAYER INC. SARNIA SITE	SARNIA	Ontario	325210	No	Yes	tonnes	6.75			6.75				1.46	
1944		2004	LANXESS INC.	LANXESS WEST	SARNIA	Ontario	325210	No	Yes	tonnes	5.3	0	0	5.3					
1944		2005	LANXESS INC.	LANXESS WEST	SARNIA	Ontario	325210	No	Yes	tonnes	2.9	0	0	2.9					
1944		2006	LANXESS INC.	LANXESS WEST	SARNIA	Ontario	325210	No	Yes	tonnes	3.2	0	0	3.2					

Source: NPRI (2003-2004), NPRI ID 1944

Recommendation 4: All substances covered in CEPA P2 Plans should be added for reporting in the NPRI.

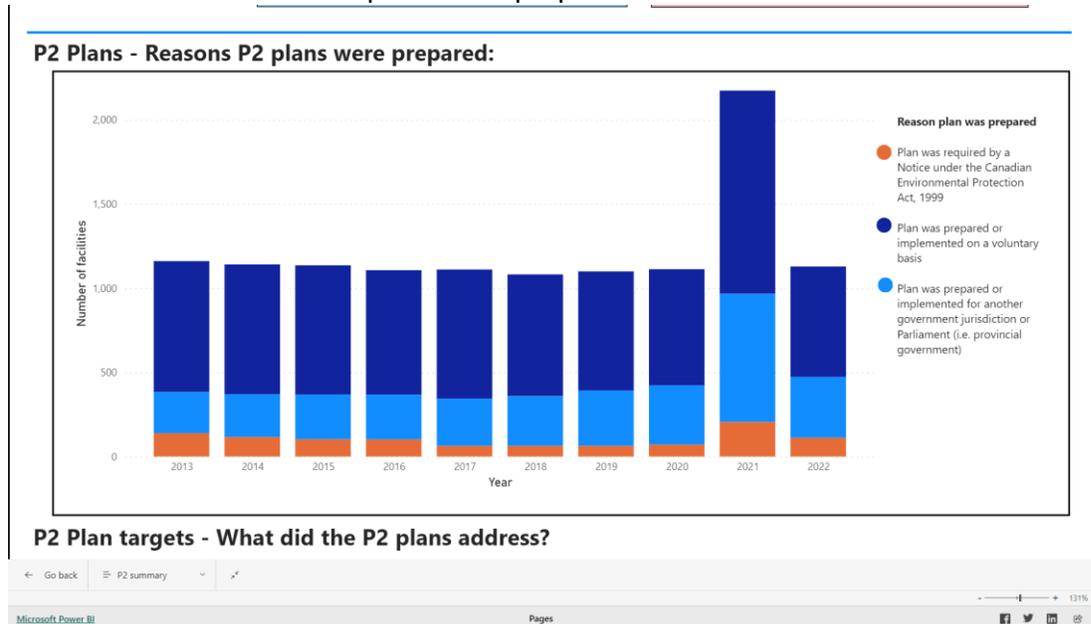
Recommendation 5: Fix search tools under NPRI search tool and Dashboard for P2 plans and P2 activities to align with CEPA P2 plans for substances and facilities.

Recommendation 6: Amend the Reporting forms for facilities to require substantial reporting on P2 plan details (including identification of all substances covered by P2 plans, and activities undertaken to complete implementation of P2 plans for each substance, if applicable, and link to their declaration of completion.)

Recommendation 7: NPRI should provide links to the specific CEPA P2 plans associated with each NPRI substance covered under P2 plans for each facility.

Part 4C: Other P2 planning provision challenges and proposed changes

Chart 3: Reasons P2 plans were prepared.



Source: NPRI

In 4B, we discussed the facilities that have plans because of requirements under the CEPA Planning Notices provision (see orange bar in chart 3 above). But most facilities reporting P2 plans and activities under NPRI are doing so under a voluntary plan (see purple bar) or as required by a provincial government (see blue bar).

We are very pleased to see this development of voluntary plans and reporting on P2 activities under them. Similar reporting requirements should be in the NPRI for those with voluntary plans. For example, they should have to report the substances for which they are taking P2 activities, substitutions, reductions and eliminations, etc.

We noticed similar limitations in this reporting as in the CEPA P2 reporting that contributes to an incomplete picture for the public and results in ineffective assessment of the activities undertaken by facilities on pollution prevention. These limitations also apply to facilities reporting under CEPA or provincial programs.

- If the facility reports in P2 section of the report indicated that “The report was not updated during the reporting year”, it doesn’t give us any way to know why no action? (see: Manitoba Hydro for 2021 at <https://pollution-waste.canada.ca/national-release-inventory/2021/821>) or for New Brunswick Power Corporation for 2020 (NPRI ID 1710) at <https://pollution-waste.canada.ca/national-release-inventory/2020/1710>). The statement is inadequate. Is it because they have already finished their plan? Or just that they decided not to take any actions this year. They should be required to provide explanation of why not and of when they last acted. The facility details may indicate no actions this year making it very hard if not impossible to find information on when they last reported P2 activities relevant for P2 plans and whether they had finished the plan then or not. They should say which year they last took P2 actions so you can look it up.
- NPRI does not designate those pollutants according to health effects or other hazardous criteria. For Pollution Prevention activities and plans, it would be valuable to be able to search for substances based on their toxic properties where P2 plans would be most needed. For example, a few categories it is important to be able to search by would be carcinogens, developmental-reproductive substances, metals, respiratory, persistent bioaccumulative substances.
- Facilities should be required to report on P2 activities even if they don’t have a P2 plan.
- The information on P2 plans and P2 activities is generally hard to locate using the NPRI search tools even when you find the proper facility. The P2 part of the report is at the bottom of the facilities report. People may give up before getting to the bottom of the report. This creates an impression that there is low priority to P2 plans and activities.

Part 5: Additional Recommendations

Recommendation 8: All the detailed information under NPRI that we listed above should be required – not encouraged. This includes for example: naming each substance and detailing implementation plans and activities; specifying the change that was made, including the substance that is replacing the one used before, etc.

Recommendation 9: Even if the information is there, it is often hard to find it on the NPRI website. Throughout this report we have given some examples of the challenge, e.g., getting different information depending on which NPRI tool you use to do the search. We have detailed these problems in this and previous submissions that we have made to you on the NPRI website.

Part 6: Summary of Recommendations

This submission provides the following nine recommendation for consideration to improve reporting on pollution prevention plans and pollution prevention activities under the NPRI in this submission.

Recommendation 1: Pollution Prevention and Pollution Control should be reported to the NPRI separately, with the Pollution Prevention definition being kept very strictly focused on methods that attempt to eliminate the use and generation of toxic substances.

This means that the reporting form for facilities should be revised. The form must put Pollution Prevention and Pollution Control into separate questions with each question beginning with a clear definition of what fits into each category. Also, the facilities' reporting form should require that all activities that the reporter completed should be reported separately under the Pollution Prevention and the Pollution Control questions.

Recommendation 2: Facility reporters should be required to fill in all parts in the NPRI P2 module.

Recommendation 3: NPRI staff should carefully assess the completeness of the P2 modules that the reporters fill in and ensure that the reports are fully completed.

Recommendation 4: All substances covered in CEPA P2 Plans should be added for reporting in the NPRI.

Recommendation 5: Fix search tools under NPRI search tool and Dashboard for P2 plans and P2 activities to align with CEPA P2 plans for substances and facilities.

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Recommendation 7: NPRI should provide links to the specific CEPA P2 plans associated with each NPRI substance covered under P2 plans for each facility.

Recommendation 8: All the detailed information under NPRI that we listed above should be required – not encouraged. This includes for example: naming each substance and detailing implementation plans and activities; specifying the change that was made, including the substance that is replacing the one used before, etc.

Recommendation 9: Even if the information is there, it is often hard to find it on the NPRI website. Throughout this report we have given some examples of the challenge, e.g., getting

different information depending on which NPRI tool you use to do the search. We have detailed these problems in this and previous submissions that we have made to you on the NPRI website.