

**Working Document
(Consultation Document)
for Discussion on the Content of the
Proposed Pollution Prevention Planning Notice
for Hydrazine (“Notice”)**

This working document presents the main elements that Environment Canada plans to include in a Notice to be issued under section 56 of Part 4 of the *Canadian Environmental Protection Act, 1999* (CEPA 1999). The Pollution Prevention (P2) Planning Notice will set the requirements for the preparation and implementation of Pollution Prevention Plans in respect of hydrazine, which was specified as a toxic substance on Schedule 1 of CEPA 1999 (September 2012), and is relevant to the electricity generating sector.

Comments received through consultation on the approach and information outlined in this document will be used to develop a Proposed Notice that will be published in the *Canada Gazette*, Part I. The publication of the Proposed Notice will initiate a 60-day comment period. Following the comment period and after review of the comments received, a Final Notice requiring the preparation and implementation of Pollution Prevention Plans will be published in the *Canada Gazette*, Part I.

More information on P2 planning can be found in the *Pollution Prevention Planning Provisions of Part 4 of the Canadian Environmental Protection Act, 1999: Guidelines for Implementation*. These guidelines and other information related to P2 and P2 planning can be found in the Pollution Prevention Planning section of Environment Canada’s website (www.ec.gc.ca/planp2-p2plan).

Main elements of the Notice:

1. Definitions

For the purpose of this Working Document,

“Act” means the *Canadian Environmental Protection Act, 1999* (CEPA 1999).

“Electricity generating sector” is a group of companies primarily engaged in the generation and transmission of electricity, and whose primary purpose is the generation of electricity predominantly for commercial sale to/from the grid.

“Hydrazine” means the substance with the Chemical Abstracts Service Registry Number (CAS RN¹) 302-01-2, and the Domestic Substance List name “Hydrazine”.

“Facility” includes any industrial site that:

- (i) Generates electricity primarily for commercial sale to/from the grid; or,

¹ The CAS Registry Number is the property of the American Chemical Society and any use or redistribution, except as required in supporting regulatory requirements and/or for reports to the Government when the information and the reports are required by law or administrative policy, is not permitted without the prior, written permission of the American Chemical Society.

- (ii) Stores equipment and chemicals to be used at locations of the end users described in (i)

and excludes facilities where electricity is generated with a non-thermal process.

“Minister” means the Minister of the Environment.

“Notice” means the Proposed Notice requiring the preparation and implementation of pollution prevention Plans in respect of hydrazine, related to the electricity generating sector.

“Operator” means the person in charge of the operation or the management of the facility.

“Plan” means a pollution prevention plan.

“Techniques” includes both the facility equipment used in the process and how the process is operated. It includes, but is not limited to, matters such as the number of employees, their qualifications and experience, working methods, training, supervision and the manner in which the process is operated. It also includes the design, construction, lay-out and maintenance of the facility.

2. Persons subject to the Notice

The Notice applies to any owner or operator of a facility in the electricity generating sector who, on the date of publication of the Final Notice and any time thereafter:

- a) stores, uses or produces hydrazine at a concentration of greater than 10% (% by weight); and
- b) as a result of this storage, use or production, releases effluent at the final discharge control point of the facility that contains hydrazine.

The Notice does not apply if the facility releases an effluent that at all times and at all final discharge control points has a concentration of hydrazine that is less than or equal to the following Predicted No Effect Concentrations (PNEC):

- 2.6×10^{-3} mg/L if discharged to freshwater; and
- 2.0×10^{-4} mg/L if discharged to sea water.

3. Activities and risk management objective (RMO) in relation to which the Plan is to be prepared

The Notice will require those subject to the Notice to prepare and implement a Plan in relation to the storage, use, production or release of hydrazine.

4. Factors to consider in preparing the Plan

Section 56 of Part 4 of CEPA 1999 requires those subject to a P2 Planning Notice to consider all the factors to consider during the preparation of a P2 Plan, and includes the risk management objectives. A description of how the specified factors were addressed when preparing the P2 Plan is required in the declarations and the interim progress report.

The Minister requires all those subject to the Notice to consider the following factors to consider in preparing their Plan:

a) Toxicity Assessment:

According to the Final Screening Assessment Report, hydrazine is entering or may enter the environment in a quantity or concentration or under conditions that have or may have an immediate or long-term harmful effect on the environment or its biological diversity. The Final Screening Assessment for hydrazine was published by Environment Canada and Health Canada on January 15, 2011, and it is available at:

www.ec.gc.ca/ese-ees/default.asp?lang=En&n=17647095-1

b) Risk Management Objective for hydrazine:

The environmental RMO for hydrazine is to reduce exposure through the reduction of hydrazine effluents to the aquatic environment to the greatest extent practicable.

The specific RMO is to achieve and maintain, using techniques or technologies, a total hydrazine concentration in effluent at the final discharge control point(s) of the facility that is less than or equal to the specified PNEC.

c) Discharge streams:

All discharge streams from industrial processes and cooling systems, all surface drainage streams, and all ground-water-sourced effluent streams should be addressed by the Plan.

d) Regular sampling:

Conduct sampling for analysis in discharge streams at their final discharge control point(s) of the facility, and prior to any dilution by receiving water.

Sampling should be conducted at final discharge control point(s) of the facility, at a frequency consistent with the existing monitoring and reporting requirements of any federal license(s) and provincial Certificates of Approval or at a minimum of four times per year at each final discharge control point.

e) Event sampling:

Conduct sampling while industrial processes causing higher discharge concentration than normal are occurring, and during an environmental emergency in respect of hydrazine (i.e. an uncontrolled, unplanned or accidental release of hydrazine into the environment, or the reasonable likelihood of such a release into the environment). For regular, episodic, non-continuous releases, a batch sample should be taken that is representative of the average concentration over the time period of the release.

f) Analysis of samples:

The analysis of hydrazine should be performed by a laboratory that is accredited under the International Organization for Standardization ISO/IEC 17025:2005 standard titled *General requirements for the competence of testing and calibration laboratories*, as amended from time to time. The laboratory analysis should be performed according to an analytical method that achieves a detection limit for hydrazine at or below the PNEC published in the Final Screening Assessment Report mentioned above.

g) Priority to pollution prevention activities

The use of P2 planning is a means of addressing the release to the environment of substances on Schedule 1 of CEPA 1999, or other pollutants. In preparing a Plan, a person or class of persons subject to the Notice is to give priority to pollution prevention activities. "Pollution prevention" (P2), as defined in section 3 of CEPA 1999, 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."*

A person may request that his or her requirement to consider a factor or factors be waived. To do so, a person must submit a written "Request for Waiver of the Requirement to Consider a Factor or Factors" (Schedule 2). For more information on requesting a waiver, see an example of a Schedule 2 (www.ec.gc.ca/planp2-p2plan/default.asp?lang=En&n=47D71451-0&offset=12&toc=show) within the *Pollution Prevention Planning Provisions of Part 4 of the Canadian Environmental Protection Act, 1999: Guidelines for Implementation*.

5. Time provided to prepare the Plan

The Notice will require that all those subject to the Notice prepare a P2 Plan no later than 12 months after the date the person becomes subject to the P2 Notice, and submit a Declaration of Preparation to Environment Canada.

A person may request an extension of time for preparing a P2 Plan by submitting a "Request for Time Extension for Preparation of a Pollution Prevention Plan" (Schedule 3). See www.ec.gc.ca/planp2-p2plan/default.asp?lang=En&n=47D71451-0&offset=13&toc=show for an example of a Schedule 3.

6. Interim Progress Report

The Notice will require that all those subject to the Notice submit an interim progress report according to the following timeline:

- Interim Progress Report No. 1 — deadline: 24 months after the date the person is subject to the Notice.

The Interim Progress Report (IPR) will report data pertaining to the previous calendar year. Where a person has prepared a single Plan for several facilities, a separate IPR must be filed for each facility. If a Declaration of Implementation is submitted before an IPR is due, the requirement to submit the IPR is nullified.

7. Time provided to implement the Plan

The Notice will require that all those subject to the Notice implement the P2 Plan no later than 36 months after the date the person becomes subject to the P2 Notice, and submit a Declaration of Implementation to Environment Canada.

A person may request an extension of time for implementing a P2 Plan by submitting a “Request for Time Extension for Implementation of a Pollution Prevention Plan” (Schedule 3). See www.ec.gc.ca/planp2-p2plan/default.asp?lang=En&n=47D71451-0&offset=13&toc=show for an example of a Schedule 3.

8. Reporting

Persons subject to a P2 Planning Notice do not have to submit their entire P2 Plans to Environment Canada unless specifically asked to do so. They must, however, submit both a Declaration of Preparation (Schedule 1) and a Declaration of Implementation (Schedule 5), as well as the required Interim Progress Report (Schedule 4), using the forms and addressing the content specified in the Notice, by the deadlines listed in sections 5, 6 and 7 of this document.

These declarations and the IPR will require the operator to include information in regards to:

- The location: address and contact information
- Historical information of hydrazine releases
- Nature of the activities at the facility, details of various discharge streams and final discharge control points
- On-site uses, storage and manipulation of the substance
- Results achieved to date, timelines, calculations and methods to reduce concentrations of hydrazine releases
- Sampling and analysis results, including methodology
- List of events where sampled concentration exceeded limits

The Notice will include the following forms:

Schedule 1: Declaration That a Pollution Prevention Plan Has Been Prepared and Is Being Implemented [Subsection 58(1) of CEPA 1999]

Schedule 2: Request for Waiver of the Requirement to Consider a Factor or Factors for Preparation of a Pollution Prevention Plan [Subsection 56(5) of CEPA 1999]

Schedule 3: Request for Time Extension for Preparation or Implementation of a Pollution Prevention Plan [Subsection 56(3) of CEPA 1999]

Schedule 4: Interim Progress Report Concerning the Implementation of a Pollution Prevention Plan

Schedule 5: Declaration That a Pollution Prevention Plan Has Been Implemented [Subsection 58(2) of CEPA 1999]

Forms referred to in the Notice (Schedules 1 to 5) will be published as part of the Notice and can be filled out electronically using the Pollution Prevention Planning Online Reporting Tool found on Environment Canada's website at www.ec.gc.ca/planp2-p2plan.

9. The Pollution Prevention Plan

Environment Canada does not prescribe the content of the P2 Plan, nor techniques or technologies to be included in the Plan. The P2 Planning Notice allows for environmental protection innovation, because those subject to the Notice determine the appropriate content of their Plan; however, the Plan must meet all the requirements of the Notice.

Operators must keep a copy of the Plan at the facility for which the Plan was prepared. In addition, any related support documentation must be kept for a minimum of five years following the date the Plan was implemented.

Guidance on preparing P2 plans may be obtained from:

- The Pollution Prevention Planning section of Environment Canada's website (www.ec.gc.ca/planp2-p2plan).

Additional information and guidance on pollution prevention can be found on:

- The Pollution Prevention section of Environment Canada's website (www.ec.gc.ca/p2); and
- The Canadian Pollution Prevention Information Clearinghouse website (www.ec.gc.ca/ccipp-cppic).

Copies of Environment Canada's *Pollution Prevention Planning Handbook*, including a model Plan and other support tools, are available at www.ec.gc.ca/planp2-p2plan/default.asp?lang=En&n=3D468D8C-1.

10. Evaluation

The Minister will evaluate the effectiveness of the Notice with respect to the risk management objectives set out in subsection 4b) of this document. This evaluation will determine whether other measures, including regulations, are needed to further prevent or reduce negative impacts on the environment and human health from the releases of hydrazine.

11. Next Steps

A proposed Notice is expected to be published in the *Canada Gazette*, Part I in summer 2013 for a 60-day comment period. The Final Notice is expected to be published in the *Canada Gazette*, Part I in 2014.