



Information Regarding the Pollution Prevention Planning Notice for the Polyurethane and Other Foam Sector (except Polystyrene) (P2 Planning Notice) in Respect of Toluene Diisocyanates (TDIs)

What are TDIs?

Toluene diisocyanates (TDIs) refer to one or more of the following substances: 2,6-toluene diisocyanate (Chemical Abstracts Service Registry Number [CAS RN] 91-08-7); 2,4-toluene diisocyanate (CAS RN 584-84-9); or the mixtures of 2,6-toluene diisocyanate and 2,4-toluene diisocyanate (CAS RN 26471-62-5). These are industrial chemicals currently imported into Canada and used in the manufacture of flexible polyurethane foam, paints and coatings, adhesives, sealants and elastomers.

Why do we need to manage TDIs?

Industrial releases of TDIs in Canada are mainly to air, in the form of stack and fugitive emissions. TDIs may affect the general population through inhalation. Environment Canada and Health Canada assessed TDIs and concluded that they are entering or may enter the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health. To ensure sound environmental management of TDI releases, Environment Canada published a Pollution Prevention (P2) Planning Notice.

Who is subject to the P2 Planning Notice in respect of TDIs?

The P2 Planning Notice applies to any person or class of persons who, on the date of publication of the Notice or anytime thereafter, meets the following two criteria:

(a) owns or operates a facility within the polyurethane and other foam sector (except polystyrene) which, at any time, purchases, imports or uses 100 kg/year or more of TDIs;

AND

(b) is involved in one or more of the following activities:

- Manufacturing of flexible slabstock foam, flexible moulded foam, rigid foam or structural foam
- Rebonding of foam

Note that TDI storage and cutting and shaping of the above-mentioned foams are included in these activities.

What are the requirements of the P2 Planning Notice in respect of TDIs?

The P2 Planning Notice was published in the *Canada Gazette* and came into force on November 26, 2011. Persons subject to the P2 Planning Notice are required to prepare and implement a P2 Plan, based upon consideration of factors such as determining industrial releases of TDIs to air. Outlined below are the key milestones for the preparation and implementation of the P2 Plan for TDIs.

Milestones	Deadlines to Prepare and Implement the Plan*	Due Dates to Submit Schedules*
Preparation of P2 Plan	November 26, 2012	Schedule 1 due on December 26, 2012
Interim Progress Report #1	–	Schedule 4 due on November 26, 2013
Interim Progress Report #2	–	Schedule 4 due on November 26, 2014
Implementation of P2 Plan	November 26, 2015	Schedule 5 due on December 26, 2015

*Applicable if the person or class of persons is subject to the P2 Planning Notice on the date of its publication in the *Canada Gazette*. If subject after the date of publication, please refer to the P2 Planning Notice.



What are the steps to follow for preparing and implementing a P2 Plan in respect of TDIs?

Step 1: Determine industrial releases of TDIs to air

There are two options identified in the P2 Planning Notice for determining industrial releases of TDIs to air. The information below and flowchart on the right side summarize these options and related reporting requirements (Figure 1).

Option 1: Predict TDI concentration in ambient air using AERMOD

If you chose to predict TDI concentration in ambient air using AERMOD as stated in subparagraph 4(1)(c)(i) of the P2 Planning Notice, report all information required in the corresponding part of the schedules. It is recommended that the provincial or territorial guidelines for compliance with the dispersion model requirements be taken into account, wherever applicable.

Option 2: Measure or estimate actual on-site releases of TDIs to air

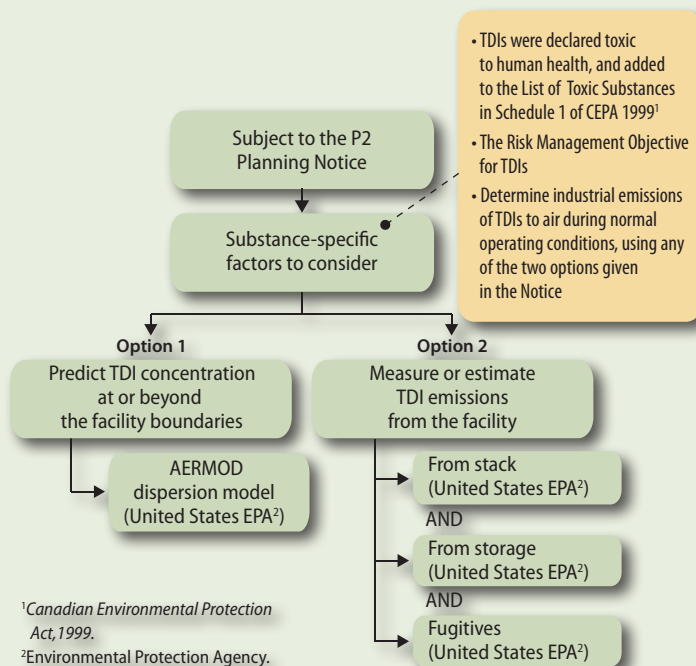
If you chose to measure or estimate actual on-site releases of TDIs to air as stated in subparagraphs 4(1)(c)(ii), 4(1)(c)(iii) and 4(1)(c)(iv) of the P2 Planning Notice, report the quantities of each type of release of the substance to air, indicating which of the measurement methods or estimation methods listed in the Notice was used to derive those values. Calculate the sum of these releases to obtain the total amount of TDIs released to air from the facility.

Note: Both routine releases, such as fugitive releases to air, and accidental or non-routine releases, such as a relief valve opening due to process upset, should be included in your estimate of the quantity released.

Step 2: Reduce releases of TDIs to air (if needed)

The results obtained in Step 1 should be compared with the corresponding threshold indicated in the P2 Planning Notice, to determine if further reduction of releases of TDIs to air using best available techniques economically achievable (BATEA) is required (Figure 1).

Step 1: Determine industrial releases of TDIs to air



Step 2: Reduce releases of TDIs to air (if needed)

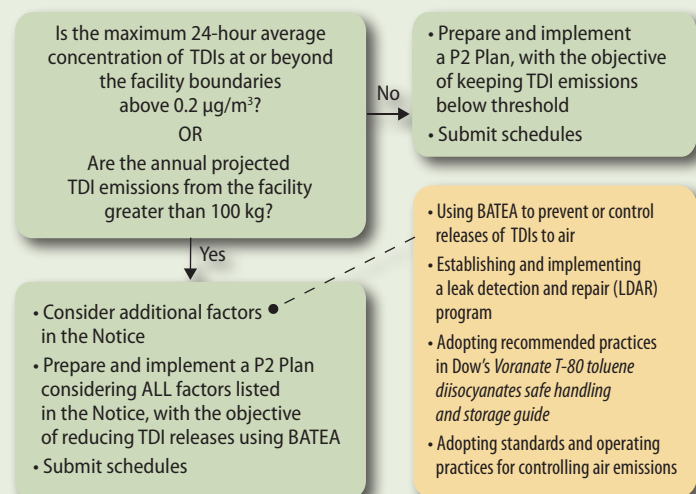


Figure 1 Flowchart of steps to follow for preparing and implementing a P2 Plan in respect of TDIs

Where can I find more information?

A link to this P2 Planning Notice, and guidance on preparing P2 Plans and electronic reporting, can be found in the Pollution Prevention Planning section of Environment Canada's website, at www.ec.gc.ca/planp2-p2plan.

Further information can be also obtained by contacting Environment Canada:

Telephone: 1-800-668-6767 (in Canada only)

Email: LCPEPlansP2-CEPAP2Plans@ec.gc.ca

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Disclaimer:

This document is issued for guidance on the *Notice requiring the preparation and implementation of pollution prevention plans in respect of specified substances on Schedule 1 of the Canadian Environmental Protection Act, 1999, related to the polyurethane and other foam sector (except polystyrene)* (the Notice) in respect of toluene diisocyanates (TDIs), and is intended to be complementary to the Notice.

If there is any discrepancy between the information contained in this document and the *Canadian Environmental Protection Act, 1999* (the Act) or the Notice, the Act and the Notice will prevail.

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