

**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 8903-AD5HPV  
Notice No. 1  
Issue Date: May 1, 2024

INEOS Styrolution Canada Ltd.  
872 Tashmoo Ave  
Post Office Box, No. 3078  
Sarnia, Ontario  
N7T 8A3

Site Location: Styrene I  
1265 Vidal Street South  
Sarnia City, County of Lambton  
N7T 7M2

Styrene II  
872 Tashmoo Avenue  
Sarnia City, County of Lambton  
M7T 7H5

Pursuant to my authority under Section 20.13(a) and 20.13(b) of the *Environmental Protection Act*, you are hereby notified that I have amended Approval No. 8903-AD5HPV, issued on December 15, 2016, for a hydrocarbon storage facility (Styrene I) and a styrene and ethylbenzene production and hydrocarbon storage facility (Styrene II), as set out below. **Unless otherwise specified, all other terms and conditions remain the same.**

For the purposes of this Notice, the capitalized terms shall have the meaning(s) set out in the Approval, unless altered below.

**I. Definition no. 16 is revoked and replaced with:**

- "Equipment with Specific Operational Limits" means any Equipment that is specifically referenced in any published Ministry document that outlines specific operational guidance that must be considered by the Director in issuing an Approval.

## II. Definition no. 39 is revoked and replaced with:

- “Schedules” means the following schedules attached to this approval and forming part of this Approval namely:
  - Schedule A – Supporting Documentation
  - Schedule B- Technical Standards which may apply to the Company
  - Schedule C – Notice of Suspension, dated May 1, 2023
  - Schedule D – Notice of Amendment, dated May 1, 2023

## III. The following definitions are added:

1. "AFN" means Aamjiwnaang First Nation.
2. “AFN Contact” means the Chief of the Aamjiwnaang First Nation or another person designated by the Chief in writing for this purpose.
3. "Air Monitoring Strategy" means the Air Monitoring Strategy for Benzene Reduction that is included as Appendix F to the Benzene Reduction Plan, as may be amended.
4. “Benzene Reduction Plan” means the plan required by Item No. 3 of Provincial Officer’s Order No. 8348-BFPLCD, entitled the “INEOS Styrolution Benzene Reduction Plan”, originally dated May 2020, as may be updated.
5. “Benzene Minimization Plan” means the document required by Part IV of the Petrochemical – Industry Standard, entitled “Benzene Minimization Plan for Drains and Maintenance Access Points”, Rev. 3, prepared by the Company, Rev. 3, dated March 2023, as may be amended.
6. “Benzene Reduction – Interim Plan for Sumps” means the plan required by Item No. 1 of Provincial Officer’s Order No. 1-35809039, as may be amended, submitted by the Company, dated April 26, 2024, as may be amended.
7. “Delay of Repair List” means the list required by section 44 of the Petrochemical - Industry Standard.
8. “District Office” means the Ministry Sarnia District Office.
9. “EGC” means an environmental gas chromatograph used at the Site, as described in the Air Monitoring Strategy.
10. “Leak” means any discharge containing benzene from a component or equipment interface that is measured using a portable gas detector taken at the component/equipment interface of 1,000 parts per million by volume or greater of a volatile organic compound.
11. “Licensed Engineering Practitioner” means a person who holds a licence, limited licence or temporary

licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28.

12. "Resuming Operations Report" means the written report required by Condition 1.5 of this Approval.
13. "Suspension Period" means the period of time when Condition 1.1 of the Approval is suspended, until such time as that suspension is revoked.
14. "Suspension Plan" means the written plan required by Condition 1.4.

**IV. Condition 1.1 has been suspended in accordance with the Notice of Suspension, dated May 1, 2024.**

**V. The following conditions are added:**

Conditions for Restarting

- 1.2 Subject to Condition 1.3, the Company shall not operate the Facility until the Company has completed the following actions:
  - a. Investigate and identify all fugitive and non-fugitive sources of benzene that may be discharged into the air from the Facility, using real time continuous monitoring systems such as gas chromatographs, optical gas imaging, or hand-held detection equipment, capable of speciating benzene in the parts per billion range.
    - i. Repair or address any Leaks or any other fugitive sources of benzene discharges identified by the investigation.
  - b. Install, commission and operate fully enclosed vent systems on all storage tanks, containing greater than 95 percent benzene by weight. Each vent system shall be connected to vapour control systems with at least 99% destruction efficiency as well as redundancy system(s) with comparable destruction efficiency.
  - c. Install, operate and maintain emissions control devices on sources of benzene emissions from the wastewater collection system, including sumps, as required in by the Benzene Minimization Plan with full redundancy and at least 95% removal efficiency.
  - d. Install, operate and maintain a vapour control system for the oily water stripper overhead drum MS403, with full redundancy and at least 99% destruction efficiency.
  - e. Complete all repairs for components on the Delay of Repair List, unless otherwise approved by the Director in writing.
  - f. Submit to the Director a list of all pressure relief devices that may discharge benzene, describing the following:

- i. how and where they are used in the process;
- ii. the location of where a pressure relief device discharges;
- iii. a description of the process fluid in contact with the device and the estimated benzene content by weight; and
- iv. a diagram of the location of each device and Universal Transverse Mercator coordinates.

#### Conditions During Suspension Period

- 1.3 During the Suspension Period, the Company shall maintain and operate the existing Equipment, including any other required pollution control equipment, necessary to maintain safety at the Facility and to prevent or reduce the discharge of benzene, styrene, and ethylbenzene from the Facility as follows:
- a. The Company shall operate and maintain the Facility only in accordance with the terms and conditions of the Approval and in accordance with the following Schedules attached hereto:
    - Schedule A - Supporting Documentation
    - Schedule B - Technical Standards which may apply to the Company
    - Schedule C – Notice of Suspension, dated May 1, 2024
    - Schedule D – Notice of Amendment, dated May 1, 2024.
  - b. By May 15, 2024, the Company shall cease accepting or storing benzene at the Facility for the purpose of manufacturing and producing styrene and ethylbenzene, unless otherwise accepted by the Director in writing.
  - c. By May 8, 2024, the Company shall provide to the Director a written plan, prepared by a Licensed Engineer Practitioner, describing the operations of the Facility during the Suspension Period that includes, at minimum, the following:
    - i. a description of the Equipment and processes that cease to operate, or any changes to operations, during suspension;
    - ii. a description of the processes and procedures to prevent and minimize the discharge of benzene, including the ongoing clean out of wastewater sumps containing benzene and disposal of any contents in a safe manner;
    - iii. a description and explanation for any Equipment and processes that will continue to be operated at the Facility in accordance with this condition;
    - iv. a written plan to conduct offsite air monitoring during any activities that may result in an offsite discharge of benzene that may cause an adverse effect;

- v. a written protocol for removing benzene and related contaminants from storage tanks, including any decommissioning of tanks or transferring the contents of any tank;
  - vi. a written plan on how benzene will be removed from the Facility and how any resulting offsite discharges of benzene will be prevented or minimized; and
  - vii. a schedule for any proposed work, including implementation dates, which prioritizes addressing sources of benzene that may affect the AFN community.
- d. The Company shall implement the Suspension Plan, as approved by the Director in writing.
- e. The Company shall implement the Benzene Reduction – Interim Plan for Sumps in accordance with the schedule contained therein.
- 1.4 Commencing on June 1, 2024, and on the first day of every month thereafter, the Company shall provide a written report to the Director, the District Office, and the AFN Contact summarizing any work completed in Conditions 1.2 and Condition 1.3 of this Approval, prepared by a Licensed Engineering Practitioner, that includes, at minimum:
- a. a description of any actions taken in the preceding month;
  - b. a description of any work that cannot be completed, and an explanation for why said work is not able to be completed; and
  - c. a timeline for carrying out any work not yet completed.
- 1.5 Within 7 days of completing the work described in Condition 1.2, the Company shall have a Licensed Engineering Practitioner prepare a written report that summarizes the work undertaken prior to resuming operations that includes, at minimum:
- a. a description of all the work completed, including any planned or unplanned deviations from the work required in Condition 1.2 and any explanations for the deviation;
  - b. a proposed date for resuming operations for the manufacture of styrene and ethylbenzene;
  - c. a description of how the Facility will resume operations in a manner that will minimize the discharge of benzene and to prevent, eliminate or ameliorate any adverse effects;
  - d. a description of any changes that may require an amendment to the Approval, and timelines for submitting an application for any amendment;
  - e. an updated emissions summary and dispersion modelling report, that includes benzene using 1 hour, 24 hour, and annual averaging periods, prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document;

- f. an updated set of the Facility's piping and instrumentation diagrams and process flow diagrams; and
  - g. a statement confirming that the Company has provided a copy of the draft Resuming Operations Report to the AFN Contact, and a copy of any written comments received from the AFN and a summary of any other comments by the AFN on that report, and how those comments are addressed.
- 1.6 At least 30 days prior to the proposed date in Condition 1.5(b), submit a copy of the Resuming Operations Report to the Director, District Office, and AFN Contact.
- 1.7 By May 8, 2024, the Company shall update the Air Monitoring Strategy to:
- a. Share the results of all benzene monitored data on a publicly accessible website, including raw hourly average EGC data from all monitors within 30 minutes of the monitoring hour ending and updated at least every hour.
  - b. Conduct validation of monitored data within 24 hours of notifying members of the public as required by the Air Monitoring Strategy and submit the data and the description of the validation to the Director and AFN Contact within seven days of the notification.
  - c. Commencing June 1, 2024, and each year thereafter, the Company shall review and update the Air Monitoring Strategy, or as may be required by the Director in writing.

**All other Terms and Conditions remain the same.**

The reason(s) for this amendment to the Approval is (are) as follows:

1. Condition 1.2 is included to provide the actions the Company is required to complete prior to restarting operations at the Facility related to the manufacture and production of styrene and ethylbenzene.
2. Condition 1.3 is included to require the Company to safely maintain the Facility and to prevent or reduce the discharge of benzene, styrene, and ethylbenzene during the Suspension Period.
3. Condition 1.4 is included to require the Company to provide monthly update reports to the Director, District Office and AFN Contact, to assist with the review of the Company's progress in undertaking the work described in Condition 1.2 and to ensure compliance with the EPA, the regulations and conditions of this Approval.
4. Condition 1.5 and Condition 1.6 are included to require the Company to provide the Resuming Operations Report to the Director, District Office and the AFN Contact. The final report is to include a description of how INEOS has addressed any comments received from the AFN. The Director will review the report, which will inform the Director about whether to revoke the suspension of Condition 1.1 and/or amend the Approval as set out in the report. The Director will

advise the Company within three weeks whether the report is acceptable. Upon receiving a report that is acceptable to the Director, the Company should submit an application to the Director to amend the Approval as may be necessary to resume its operations related to the manufacture and production of styrene and ethylbenzene.

5. Condition 1.7 and Condition 1.8 are included to require the Company to have an updated air monitoring strategy that includes public notification requirements and validated monitoring data. This information will assist the Ministry in assessing the environmental impact from the Site and the Company's compliance with the EPA, the regulations, and this Approval.

**This Notice shall constitute part of the approval issued under Approval No. 8903-AD5HPV dated December 15, 2016**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the *Environmental Protection Act* provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be available with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

The Director appointed for the purposes of Part II.1  
of the *Environmental Protection Act*  
Ministry of the Environment, Conservation and  
Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 1st day of May, 2024

Nancy Orpana

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Nancy E Orpana, P.Eng.

Director

appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

SM/

c: District Manager, MECP Sarnia  
N/A, INEOS Styrolution Canada Ltd.