
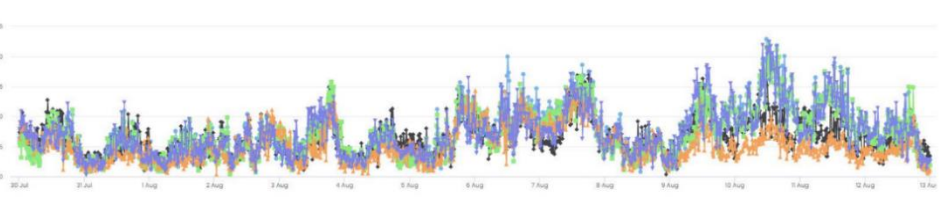


**O.Reg. 206/24 – Air Pollution – Discharge of Benzene from INEOS Styrolution
2-week Benzene Exceedance (July 30, 2024 – August 13, 2024)**

Ontario Regulation 206/24: Air Pollution – Discharge of Benzene from INEOS Styrolution (“O.Reg. 206/24”) requires a report to be submitted to the District Manager of the Ministry’s Sarnia District Office, the Chief of the Aamjiwnaang First Nation (or designate), and the Ministry’s Spills Action Centre within 14 days after an exceedance notification. This report describes the discharge above 14 µg/m³ over a two-week period that occurred between July 30, 2024 and August 13, 2024 at Property Line Monitoring Station #10.

This report contains the information requested in the order and regulation to the best of our abilities, with the understanding that property line monitoring (“PLM”) contributors cannot be considered with 100% certainty, as there can be many factors affecting the PLM values over any 14-day period. However, we have made every effort reasonable to attempt to identify any potential processes, events and/or sources from onsite activities during this time period that may have contributed to the final value. The attached table summarizes these findings.

Summary of Exceedance:

Time Period:	July 30, 2024 – August 13, 2024
Station #:	10
Measured Benzene Concentration:	21.80 µg/m ³
Operating Condition:	Shutdown/idle state
Wind Direction:	
Wind Speed (km/h):	

Analysis of the Contravention:

Property Line Monitoring (“PLM”) Station #10 is located next to a benzene storage tank (Tank 8) at the Styrene 1 site (located offsite and primarily used for storage). Operations remained shutdown and idle during the time period of July 30, 2024 – August 13, 2024. The design specifications to safely store material and maintain the integrity of Tank 8 requires vents to be opened for sufficient pressure/vacuum relief and to minimize organic vapor accumulation in the tank vapor space below flammable concentrations. A Thermal Oxidizer with a 99.9% destruction efficiency was installed on Tank 8 in 2021 and has assisted with keeping emission levels below the previous benchmark of 30 µg/m³ over a 2-week period and below 14 µg/m³ over a two-week for a majority of the time. However, due to the open vents and normal rim and deck seal losses from storage tanks (unrelated to withdrawal losses) there are routine atmospheric benzene emissions from Tank 8 that are not captured by the Thermal Oxidizer. Further, wind and ambient temperature conditions can influence the storage tank loss emissions. Given the close proximity to Property Line Monitoring Station #10 and without knowledge of or data on other potential external sources of benzene near the PLM station, it was concluded that the exceedance is likely

due to the emissions from the benzene storage tank (Tank 8). There are emission reduction efforts and engineering evaluations ongoing to support removing benzene from Tank 8.

On May 1, 2024, INEOS Styrolution received a Notice of Suspension and Amendment of the site's Environmental Compliance Approval, which includes the requirement to remove benzene from Tank 8 once a plan has been reviewed and approved by the MECP Director. Over the last few months INEOS Styrolution has been actively working in collaboration with MECP, Aamjiwnaang First Nation ("AFN"), Environment and Climate Change Canada ("ECCC") and the City of Sarnia to develop a plan that minimizes emissions, provides open communication, proactive air monitoring and ultimately, ensures the removal of benzene is implemented in a safe and responsible manner. On August 14, 2024, INEOS Styrolution received approvals of the benzene removal plan in its entirety. This plan includes the requirement to seal tank MT303 prior to transferring the remainder of benzene material from Tank 8 to tank MT303. Several steps have been taken to proceed towards the benzene removal plan:

- Completed risk assessment for sealing tank MT303.
- Scheduled and secured resources for controlling emissions during landing the floating roof of Tank 8.
- Completed third-party engineering assessment with design specifications for MT-303 PVRV, nitrogen regulator, pressure transmitter and emergency valve.
- Ordered equipment with expedited delivery.
- Arrange variety of logistics for the benzene removal plan (select temporary pump, schedule community air monitoring, diesel, etc).
- The seal of 1PP-357B (Tank 8 pump on LDAR Delay of Repair list) was replaced on August 28, 2024.

A proposed schedule (start and duration) of each step of the benzene removal plan was provided to MECP, AFN, ECCC and City of Sarnia on September 1, 2024 and updated on a weekly basis up until the actual implementation date. Steps are currently being taken towards complying with the ECCC interim order and MECP's approval conditions (e.g. seal tank MT303 prior to any transfers from Tank 8, which must be completed before October 16, 2024).

The following measures will be implemented to reduce emissions from Tank 8:

Corrective Action:	Implementation Date:
Re-evaluate the pressure protection calculation of Tank 8 and evaluate whether the mushroom vent on the tank can be closed.	Mushroom vent was closed on August 28, 2024.
Complete handheld air monitoring near PLM Station #10 to investigate whether there were any other potential sources of benzene that may have contributed to this exceedance.	Air monitoring was conducted on August 23, 2024 and nothing abnormal was observed at that location.
Remove benzene from Tank 8 to eliminate this source of benzene at the Styrene 1 site. The benzene removal plan will begin on October 2 nd , 2024.	October 16, 2024