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INEOS Styrolution

Introduction:

As per Item 1.4 of the ECA Amendment, INEOS Styrolution is submitting this written update on the site's Suspension Plan and the various benzene reduction projects occurring on site. On October 24, 2024, INEOS Styrolution announced the decision to not restart the Sarnia site before the permanent site closure by June 2026. The site's focus is now on planning and implementing a safe and compliant closure process. Our goal is continued compliance with regulatory limits and orders and we ask for MECP's continued cooperation and consideration as our plans and targets evolve. Additionally, ongoing open communications with Ministry of the Environment, Conservation and Parks (MECP), Aamjiwnaang First Nation (AFN), and Environment and Climate Change Canada (ECCC) is crucial.

INEOS Styrolution's Sarnia website (www.ineossarnia.com) is a publicly accessible, transparent resource for visitors to find emissions data, press materials, FAQs, and insights into the value that INEOS Styrolution and our employees bring to the Sarnia community. All written monthly updates regarding the site's benzene reduction efforts will be maintained on this website.

Suspension Plan:

On November 23, 2024, INEOS Styrolution submitted an updated Suspension Plan, which described the facility's current operating status and site decommission plans for 2025. INEOS Styrolution received MECP approvals for the Suspension Plan on December 19, 2024. Additionally, on January 24, 2025 INEOS received comments from the MECP on the site's updated Air Monitoring Strategy (AMS). An updated Air Monitoring Strategy was submitted on February 28, 2025.

Repair of LDAR DOR Items:

The LDAR components on the Delay of Repair list have been repaired or are no longer leaking in the site's current depressurized, shutdown state, as per Item 1.2(e) of the ECA Amendment. Routine site LDAR monitoring and OGI tank inspections will begin at the end of April. If leaks are identified, they will be repaired according to the leak repair timelines as required in Table 7-43: Leak Repair of the PCIS.

Benzene Removal from Tank MT303: The approved Suspension Plan included a benzene removal plan for the tank which is scheduled to begin in April 2025. Part A of the benzene removal plan (De-inventory Bulk Volume above Internal Floating Roof Height) will begin around the middle of April (~April 12 or later). Part A will involve opportunistic pumping of bulk material from the MT-303 to offsite supplier tank via pipeline when space is available. Tank level will be maintained above internal floating roof (IFR) height, with the thermal oxidizer (TO) connected. A low-level alarm into the continuously monitored control room will ensure the IFR is not unintentionally landed. This activity will occur intermittently and slowly over several weeks until bulk benzene volumes have been reduced. The TO will continue to be in service and controlling emissions throughout Part A activities with minimal increase in benzene emissions and no offsite impact.

Preparatory work associated with Part B of the benzene removal plan (Benzene Removal below Internal Floating Roof Height) is scheduled to begin April 28, 2025. This preparatory work involves establishing equipment connections, TSSA inspections, and Pre-Startup Safety Reviews prior to the tank roof being landed. The Part B benzene pumping and subsequent roof landing is planned to begin on **May 5, 2025**. The 24-36 hours following roof landing will have the highest potential of increased emissions and when it is most critical that continuous pumping of the benzene occurs (Steps 6-8 of the Part B Benzene Removal Plan). Once the bulk benzene is removed, low partial pressure liquid from a tank truck will be added to the tank (Step 9 of the plan - approx. May 6). Low partial pressure liquid that is soluble with the benzene (diesel and/or EB) will lower the partial pressure of the liquid mixture remaining in the tank and remove/minimize the potential for benzene emissions. The Low partial pressure liquid "wash" will last approximately 2-3 days (Steps 10-12 of the plan). The final steps of the degassing (Steps 13-15 of the plan) will occur over approximately one week. A TO will continue to be in service and controlling emissions throughout each step of Part B benzene removal.

Preliminary modeling for the Part A and Part B of the MT-303 benzene removal indicate that offsite POI concentrations will be below 27 ug/m3 throughout each step of this multi-day planned activity.

Benzene Reduction Projects:

Several of the benzene reduction projects outlined in the amended ECA only provide impact on the premise of restarting. As a result, most benzene reduction projects remain on hold until site decommissioning plans are established. INEOS Styrolution's plan will ensure site closure activities are completed safely and in compliance with the regulations and Orders. Ongoing discussions with MECP will take place to understand the requirements.

Sump Cleaning and Emissions Control:

The wastewater treatment system continues to cease normal operations. The majority of the basins continue to collect water (rainwater run-off from process and non-process areas and condensate), which is routed to a number of sumps on site. Since the plant is not operating, there is no hydrocarbon routinely or expected to enter SG202. Benzene levels in SG202 remain low, as confirmed by the latest DMAP samples. During site decommissioning, SG201 continues to collect low/no benzene containing process water and condensate from the units. The benzene levels in the wastewater sumps are currently very low (as per DMAP samples).

SG212 continues to be utilized to collect water, condensate and residual hydrocarbons that is washed from process equipment and piping for decontamination. In February 2025, INEOS Styrolution successfully installed and commissioned a carbon adsorption vent gas control system on SG212 which achieves >95% hydrocarbon destruction/removal.

Previous Month Completed Benzene emission-related activities:

1. Bulk material from MT-320 (I5 Tank) was removed and sent offsite.
2. Bulk material in Tank 9 tank was emptied and transferred to MT-305D.
3. Heat Transfer Fluid System Draining commenced and will continue in April.
4. Frac tank material was removed and loaded into sealed vacuum boxes using a carbon scrubbing emission control system. Vacuum boxes will be removed from the site in April.

4-Week Forecast – Benzene emission-related activities:

The following activities are anticipated to occur in the month of April:

1. Continue to engage with third-party companies for planning the site decommissioning activities.
2. MT320 will be further filled/flushed with EB to remove residual material from the tank.
3. Transfer of EB Flush Material offsite via railcar.
4. Continue removing bottoms material in Tank 9 and transfer to MT305D (with vac trucks).
5. Glycol removal originally scheduled for March will be done in April. Glycol systems are to be emptied and transferred offsite (no hydrocarbon/benzene emissions impact)
6. Continue draining Heat Transfer Fluid System transferred offsite (No emission impact expected)
7. Work to reduce levels in EB tank (MT-305D), Off-Spec Tanks (MT-301 and MT-212) and MT-109 by pumping materials between tanks and transferred offsite via railcar or pipeline (Thermal oxidizer control is in place for railcar loading; no offsite emissions expected).
8. MT-109 and MT-212 material removal and degassing. MT-109 is scheduled to be emptied and floating roof landed on April 8th (pending TSSA approvals). MT-212 degassing will start after MT109 is completed (mid-April). A thermal oxidizer will be utilized for emissions control during the degassing; no offsite emissions are expected. As outlined in the Air Monitoring Strategy, in addition to the eGCs and PLM monitoring, INEOS will be utilizing handheld monitors to proactively and locally monitor tank degassing activities to identify increased emissions. Additionally, a third-party company will be conducting off-site community ambient air monitoring during the MT-109 and MT-212 tank degassing activities.
9. Tank 1 solids removal; no offsite emissions are expected.
10. MT307C and PEB residue fuel oil material removal may begin in April. No emission impact expected since material is very low vapor pressure & contains no/very low benzene)
11. MT303 Part A benzene removal to begin and preparatory work for Part B Benzene Removal (see additional details above).
12. There may be various other small decontamination activities for low/no benzene containing equipment which are not expected to have offsite benzene emissions