

II. Justification for Extension Request

A. The Technology to Implement the Above Standards Is Not Available

Indorama has submitted a request for extension under CAA §112(i)(3) on which EPA was copied that explains why the technology to implement the HON Rule's process vent, tank vent, wastewater treatment, and pressure relief device ("PRD") requirements is not available. A copy of Indorama's petition is attached as Attachment A and incorporated by reference. As stated in Indorama's petition:

Process Vent and Tank Vent Requirements

- Preliminary scoping has indicated that a new steam-assisted flare system will be needed to satisfy the control requirements. The sourcing, scoping, engineering, and permitting of a suitable flare system will requirement significantly longer than provided in the HON.

Wastewater Treatment Requirements

- In the HON, EPA has defined wastewater containing 1 part per million by weight (1 ppmw) of ethylene oxide as a Group 1 wastewater stream requiring control measures. In doing so, EPA has imposed unreasonable, unsupportable, and unavailable controls and restrictions on wastewater tanks and conveyance systems containing ethylene oxide.
- Ethylene oxide is soluble in water and reacts with the water to form ethylene glycol. At a concentration of 1 ppmw the ethylene oxide will not volatilize into the air.
- However, the controls imposed on wastewater tanks, associated equipment, and wastewater conveyance systems in ethylene oxide service, at the low concentrations defined in the rule, will result in extremely costly controls, if any are available, that will be no more effective than allowing the solubilized ethylene oxide to further react and degrade in the highly dilute solution, and ultimately being naturally eliminated.
- Test methods currently available are near detection limit at concentration levels of 1 ppmw ethylene oxide in water. As noted above, ethylene oxide is soluble in water and converts to ethylene glycol, which can be biologically treated. EPA has not provided emissions data for varying ethylene oxide concentrations in water. As such, there has been no demonstration that these streams would contribute significantly more emissions than uncontrolled tanks with ethylene oxide concentrations at or below 1,000 ppmw.
- Control of wastewater streams down to <1 ppm will require a series of water and/or air control technologies. This will be a highly complex project requiring identification of applicable streams, design of control options, and installation of controls. Indorama has not identified a technology that will achieve these results.
- If a technology is identified, it will require extensive scoping, engineering, and physical and process changes as well as additional permitting that will easily exceed the deadline provided in the HON.