

PRD and derate its capacity. In many cases, this would require replacement with a larger PRD. In addition, PRDs with the potential for two-phase or liquid flow in the discharge piping will often require the PRD to physically moved to a higher elevation so that its discharge piping is free draining to its downstream flare knockout drum. In doing so, the PRD inlet piping length is increased which can further change the required design of the PRD, and necessitate further changes to the PRD inlet piping to comply with relevant engineering design standards relating to allowable PRD inlet piping pressure losses.

- If PRDs are prohibited from functioning as intended, ethylene oxide could potentially combust due to continued high pressure conditions, with the potential for catastrophic harm to workers, equipment, and the environment.
- Before the issuance of the proposed version of the Final Rule on April 25, 2023, as part of Indorama's process safety program we conducted a limited analyses of connecting certain PRDs to a control device such as a flare, scrubber, or thermal oxidizer. In most of those limited analysis, it was cautioned that it may be unsafe to do so without a more detailed review. The exorbitant cost and engineering challenges, as well as the potential to impact on the safety of our operations and process equipment, of installing, operating and maintaining the considered solutions at Port Neches made them all unavailable.

In addition, the technology to implement HON's elimination of delay of repair, fence-line monitoring requirements, and elimination of the TRE index are not available.

Elimination of Delay of Repair

- The HON's elimination of delay of repair effectively eliminates the opportunity for Indorama to minimize emissions of ethylene oxide to the atmosphere, especially considering the lower concentration that defines a leak in the final regulation.
- Under the prior delay of repair regulations, Indorama conducted routine inspections and takes all reasonable steps to repair leaking components when discovered. Indorama rigorously evaluated if an unscheduled, emergency unit shutdown would result in more emissions than allowing the component to continue to operate unrepaired until the next scheduled unit shutdown. This evaluation was then reviewed on a regular basis to ensure the overall operations and repair schedule minimizes emissions.
- Indorama has examined the impact of EPA eliminating the delay of repair allowance for equipment in ethylene oxide service. Due to the expanse of the Port Neches facility and the number of components that are currently required to be monitored on a quarterly and annual basis, the leak detection and repair program is a continual activity that occurs year-round. An analysis of our program history indicates that, of 24,261 components in ethylene oxide service, only 13 leaking components, using a leak definition of 500 ppm, have been placed on delay of repair - accounting for 0.05% of the total number of components monitored since January 2020. If Indorama were required to shut down its ethylene oxide production unit every time a leak could not be repaired immediately (considering the new leak threshold in the final rule), we could be shutting down a Port Neches production unit for one leaking component at least twice per month.