

II. The Technology Needed to Implement the Coke Ovens Rule is Not Available

A. Fenceline Monitoring Requirements

For the reasons set forth in the ACCCI/COETF petition for reconsideration, the fenceline monitoring benzene action level in the Coke Ovens Rule is overly stringent and is not based on modeling showing the correct highest benzene concentration at the facility fenceline using allowable (vs. actual) emissions. As a result, new and currently unavailable emission controls and leak detection/repair technology would be necessary to comply with the unlawful action level. Due to the complex nature of coke facilities, developing new control strategies and technologies would involve engineering suitable capture and control systems at multiple locations. The technologies needed to identify and engineer controls suitable for each location are not currently demonstrated or available for the coke ovens or associated coke byproducts recovery systems.

Likewise, the “root cause” investigation and corrective action requirements add significant complexity and technology challenges, considering the many miles of piping and thousands of valves and flanges at a coke facility. Methods to further reduce benzene emissions are not currently demonstrated for coke facilities and would include redesign or modification of process vessels, tar decanters, gas blanketing and vapor collection systems, replacing sections of coke oven gas piping, and redesign of tar and light oil loadout systems to reduce fugitive emissions and/or leak rates.

B. Revised Standards for Coke Oven Battery Doors, Lids, and Offtakes

The Coke Ovens Rule lowers the long-standing allowable leak limits for coke battery doors, lids, and offtakes including for the first time more stringent leak rate allowables on a single coke facility based on annual coke production. However, industry commenters informed EPA that there have been no changes or improvements in leak control technology or practices across the industry, which means facilities cannot consistently achieve the lower leak rate limits without developing novel new leak control methods or technologies for both coke ovens and associated coke byproduct operations.

For coke oven doors, this requires a technical evaluation to identify new ways to reduce the number of already very low door leaks in order to comply with the new Coke Ovens Rule limits. This may include replacing door machines, rebuilding or replacing oven doors, and redesigning door-jamb cleaning mechanisms, or other currently unidentified means to control leaks around coke oven doors. For coke battery lids and offtakes, this requires research and trials on new ways to reduce leaks to comply with the revised limits. Control methods could include redesigning or replacing lids or developing different sealing materials.

None of the technologies needed to comply with these new standards are currently available or demonstrated in the coke byproduct recovery industry.

C. New MACT and Work Practice Standards for Coke Oven Pushing and Battery Stacks

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