

4. EPA's Action Level Is Technically Flawed and, Therefore, Arbitrary

If the Proposed Rule was adopted in its current form, regulated entities would be required to conduct root cause analysis and corrective action upon exceeding an entirely arbitrary annual average concentration “action level” for benzene of 3ug/m³. As EPA explains, the action level does not correlate to any particular metric related to risk. 88 Fed. Reg. at 55886. Rather, the action level is based on modeling fence-line benzene concentrations using benzene emissions inventories in the facility wide risk assessment, and assuming that the reported emissions represented full compliance with all standards, adjusted for additional proposed control requirements. *Id.* at 55885. For purposes of its modeling analysis, EPA assumed that the nearest *off-site* polar grid receptor was the best representation of each facility’s fence-line concentration, unless there was a census block centroid nearer to the fence-line than the nearest off-site polar grid receptor, or an actual receptor was identified from review of the site map. *Id.* at 55887.

In other words, the action level was derived based on modeled offsite concentrations of benzene rather than the benzene concentrations actually detected at the facility fence-line. *Id.* Only receptors that were estimated to be outside the facility fence-line were considered in determining the maximum benzene level for each facility, which also corresponded with the maximum benzene concentration modeled at the fence-line. And, although EPA acknowledged that “[d]ue to differences in short-term meteorological conditions, short-term (i.e., 2-week average) concentrations at the fence-line can vary greatly,” EPA did not adjust the action level to account for this “great” variability. *Id.* EPA, without any support, assumed that a 2-week measurement period would take care of the “great” variability. *Id.*

More importantly, EPA’s “modeling exercise” appears to entirely ignore the actual sampling data which showed that the “[a]verage benzene Δc concentrations ranged from 0.1 to 40 ug/m3 . . . at the fence-line.”⁵¹ As a result, some facilities would have to perform root cause investigations and take corrective actions as soon as the rule goes into effect, even though EPA concluded that monitoring is unnecessary based on the technology review.

Method	Coke Facilities									
	Fenceline Concentration, µg/m3*									
	DTE/EES		USS Clairton		ABC		SunCoke-Haverhill		CC Burns Harbor	
	Naphthalene	Benzene	Naphthalene	Benzene	Naphthalene	Benzene	Naphthalene	Benzene	Naphthalene	Benzene
325A&B		2		40		15		0.1		3
325A (six months)		3		33		15				3
O-15A	0.4	1	9	28	1	8	0.00	0.2	1.1	1
O-13A	0.6		12		1		0.01		0.4	
	Interior Concentration, µg/m3**									
O-15A	25	25	78	339	3	34	NA		142	196
O-13A	17		67		4				50	

*Difference between the measured value and background concentration (“delta C”).

** Average across all time periods

Notably, the lowest benzene emissions were from SunCoke’s Haverhill facility, an HNR facility, at 0.1 ug/m3. In contrast, the benzene emissions detected at ByP facilities were 90 to 4,000% higher than the levels detected at SunCoke’s Haverhill facility. Yet EPA did not remark upon this discrepancy nor attempt to distinguish between ByP and HNR facilities in determining the need for monitoring.

⁵¹ EPA-HQ-OAR-2003-0051, EPA, *Memorandum, Fugitive Monitoring at Coke Oven Facilities*, at 11 (Jul. 1, 2023).