

X. PROPOSED PERFORMANCE TESTING REQUIREMENTS FOR PUSHING ARE NOT FEASIBLE

The Proposed Rule proposes using either Method 320 or ASTM D6348 as the compliance test method for HCN emissions from pushing.⁴³ Both test methods use Fourier Transform Infrared (“FTIR”) analyzer equipment. There are several challenges with setting up and collecting reliable test data using FTIR equipment on a mobile hot car during production. The hot cars ride on steel rails with limited suspension and are subject to high vibration and strong jolts. The FTIR analyzer has moving mirrors inside and alignment errors caused by jostling of the equipment and excessive vibrations adversely impact the measurements and the reliability of the results. Space on the mobile hot car is very limited; there is no available space for an instrument rack with FTIR equipment and calibration gas cylinders on the hot car.

A. Minimum Sample Volume for Mercury and PAHs Test Methods Are Too High

EPA’s proposed minimum sample volume for Method 29 (Mercury) and Method 23 (PAHs) are unnecessarily high given the low levels of mercury and PAHs expected in the sample gas (based on SunCoke’s previous test data). Pushing is a brief and intermittent activity that includes pushing coke from inside of an oven to the hot car and transport of the coke loaf to the quench tower. This pushing process lasts between two and four minutes for each oven. In order to measure emissions during this intermittent process, sampling is conducted during the push of each oven on as many ovens as is necessary to achieve the specified sample volume. In order to collect the Agency’s proposed minimum sample volume of 105 dry standard cubic feet (“dscf”) for Method 29 (Mercury) and 140 dscf for Method 23 (PAHs), testing would need to occur over a month to safely perform isokinetic testing (i.e., one run at a time) on one hot car.

For example, at a 100 coke oven facility (such as the two units at Haverhill and the one unit at Middletown), only 50 ovens are pushed per day. Sampling of pushing could only occur 100 to 200 minutes per day, or 1.7 to 3.3 hours per day. Consequently, it could take 2 to 3 days to collect a single run (and ultimately one month to collect all necessary runs). Conducting testing for such an extended period not only raises personnel safety concerns, but also serves to disrupt critical aspects of production and maintenance. Any issues that arise during testing would extend the test period and disrupt the production schedule; pushing and charging ovens on a set schedule is key to consistently producing high quality coke for the steel industry. The proposed test method would therefore require testing under non-representative conditions due to the method’s impacts on the production cycle. The daily production schedule is designed to maintain stable oven temperatures necessary for coking and oven health, minimize the need to add in other carbon-based fuels like diesel or natural gas to increase oven temperature, and to preserve the daily window for conducting maintenance on production related equipment by starting and ending production on time.

⁴³ EPA-IIQ-OAR-2003-0051, EPA, Memorandum, *Coke NESRIAP Redline Version of Proposed Rule Changes for 40 CFR part 63, subpart CCCCC* (Jul. 1, 2023) (proposing amendments to 40 C.F.R. § 63.7322(c)).