

a larger and more representative dataset that better accounted for test-to-test and plant-to-plant variations. EPA's use of the limited data set and its UPL approach was arbitrary. *See id.*

In addition, similar to EPA's approach for establishing the HNR HRSG main stack emission limits, the proposed HNR HRSG bypass/waste heat stack emission data were improperly analyzed without first correcting the data points to a consistent reference oxygen level, making it impossible to compare them. For the same reason, the proposed limits (which are expressed purely on a concentration basis (gr/dscf) without normalization to a reference O₂ level), would be ineffective because the limits can be met simply by diluting the stack gas with excess air as a means of complying with the emission limits. *See supra* Section IX.D.1.

EPA must recalculate the HNR HRSG bypass/waste heat stack limits using all available stack test data from 2006 through 2022 from SunCoke HNR HRSG bypass/waste heat stacks at Haverhill, Middletown and Granite City, and Indiana Harbor, corrected to a consistent reference oxygen level. The 45-day comment period did not provide sufficient time for SunCoke to fully evaluate and propose more appropriate and accurate revised limits. Nonetheless, as with the proposed HNR HRSG Main Stack limits, SunCoke's preliminary estimates correcting these two errors i.e., the arbitrarily confined dataset used and the failure to correct for oxygen levels to enable separately collected datapoints to be meaningfully compared demonstrate that the UPL used must be revised significantly.

2. The Proposed Limits are Not "Achievable" Under Section 112(d)(2) Because No Technically Feasible Controls Exist that Would Meet Them

EPA's analysis indicates that the proposed emission limits on the bypass vent stacks can be achieved at SunCoke's plants (with the exception of the Jewell Coke plant) with no additional controls. However, as described in great detail above, the emission limits are based on a very limited data set. Additional controls may be required to meet the proposed bypass vent limits at some or all of SunCoke's heat recovery facilities.⁴² The waste gases exiting the bypass vent stacks are typically in the 1300°F to 2000°F temperature range. To install any kind of additional pollution control equipment on the bypass vent stacks would first require cooling the high temperature waste gases significantly, using HRSGs or similar equipment, to a level that is appropriate for the specific control equipment. The current layout of the plants and the limited space available in and around the bypass vent stacks make it extremely challenging to design and install additional HRSGs, route additional ductwork and install any additional control equipment for the bypass vent stacks. Even if this could be engineered, the cost effectiveness (\$/ton removed) would be extremely high considering the fact that the bypass vent stacks are used and open for venting only a fraction of the time on an annual basis. Even then, any time that bypass venting was required for any reason, the source would not be able to meet the proposed limits because it is not technically feasible to install controls directly on waste heat stacks.

⁴² Controls needed for Jewell are discussed separately in Section VIII and Attachment D.