

emissions without imposing specific numeric limits. Therefore, relaxing the numeric RACT limits at Monessen helps mitigate, but not remove, a competitive disadvantage for the facility compared with other operating coke plants. When considering Pennsylvania Department of Environmental Protection (DEP) and USEPA acceptance of work practice as RACT for NO_x and VOC at other local coke oven batteries, the continuation of numeric NO_x and VOC RACT limitations at Monessen is inexplicable, unjustifiable, and certainly not preferable.

Technically Feasible Control Technology:

In the original 1998 RACT determination, DEP concluded that no technologically feasible NO_x or VOC control technology existed for coke oven battery underfire stacks. That continues to be the case. ArcelorMittal is not aware of any new technology that has been installed for the control of VOC or NO_x from coke oven battery underfire stacks since the initial 1998 RACT determination. Also, we are not aware of any new technologies since 1998 that are applied to other processes that may be transferable to coke oven battery underfire combustion stacks.

A literature review provides support for these determinations. The Midwest Regional Planning Organization: Iron and Steel Mills Best Available Retrofit Technology (BART) Engineering Analysis (March 30, 2005) ("BART Analysis") expressly evaluated all potentially applicable NO_x controls and none were proposed as technically feasible controls for underfire stacks. The relatively low and variable exit gas temperature in the underfire exhaust stack rendered add-on NO_x control technologies (SNCR, SCR) technically infeasible. (BART Analysis at 30.) Coke oven underfiring design and operational requirements make low-NO_x combustion controls and Flue Gas Recirculation (FGR) technically infeasible. As a result, the BART Analysis does not propose any technically feasible NO_x controls for coke oven battery underfire stacks. NO_x RACT is appropriately established as the emission limit reflecting the good combustion practices employed during the annual stack tests that generated the data used to set the corrected NO_x emission limits above.

ArcelorMittal also confirmed that VOC RACT has not changed since 1998. The underfire system is designed to combust VOC compounds, which are the constituents that give coke oven gas its heat rate. VOC emissions are controlled by following good combustion practices. Consistent with DEP's RACT determination in 1998, no add-on controls are necessary or warranted. Good combustion practices are a necessary part of normal operations and each annual stack test conducted reflects VOC emission rates when employing good combustion practices. Therefore, the stack test data that we used to establish the corrected VOC emission rates reflect good combustion practices employed at the coke oven battery underfire.

In conclusion, the corrected NO_x and VOC emission limits proposed constitute RACT, which is the emission limit that the underfire stacks are capable of meeting on a continuous basis by the application of good combustion practices, the control technology that is reasonably available considering technological feasibility. Since no additional controls are technically feasible, economic feasibility does not need to be considered in this RACT determination.

Background:

ArcelorMittal acquired the Monessen Coke Plant in 2008 from Koppers Industries. In 1998, DEP had issued site-specific RACT emission limits for VOC and NOx from various emission sources at the Monessen Coke Plant. After a review of the annual test data over eleven years (1998-2008), it became clear to ArcelorMittal that the RACT limits for the underfire stacks for coke oven batteries 1B and 2 could not be consistently achieved. Koppers reported that it had brought this issue to DEP's attention many years ago and had submitted an application on February 3, 2003, to correct the underfire stack RACT limits. In a Consent Assessment of Civil Penalty issued to Koppers on November 15, 2006, DEP states:

"It is mutually understood between the Department and Koppers that Koppers cannot comply with these [VOC RACT] limits and that revised emission limits are necessary. To date, through no fault of Koppers, the February 3, 2003 application has not yet been reviewed."

ArcelorMittal submitted a letter on February 1, 2010, re-asserting Koppers' 2003 request for corrected RACT limits.

Following meetings with DEP in June and October 2010, ArcelorMittal updated the statistical analysis used by Koppers as the foundation of its 2003 request for corrected RACT limits. ArcelorMittal submitted a statistical analysis prepared by Integral Concepts using methods from EPA Guidance for Data Quality Assessment (EPA QA/G9) to conduct a statistical analysis of Monessen's RACT units. With the benefit of five years of additional data and applying EPA's preferred statistical methods, the Report provided improved justifications for corrected RACT limits for NOx and VOC emitted from the underfire combustion stacks at Monessen Coke Batteries 1B and 2.

In a meeting on January 31, 2012, DEP recommended that we use the results of the highest valid test run to establish the revised RACT lb/hr values instead of the upper predicted limit (UPL) statistical method in the Integral Concepts Report. This resulted in modestly reduced emission rates from the UPL-based proposed limits, which ArcelorMittal is willing to accept as RACT. The Table below compares the proposed RACT limits to the original RACT limits:

Emissions Unit	1998 NOx RACT	Corrected NOx RACT	1998 VOC RACT	Corrected VOC RACT
Coke Battery 1B Combustion Stack	60.7 lb/hr 286.0 tpy	81.5 lb/hr 357.0 tpy	0.3 lb/hr 1.0 tpy	5.0 lb/hr 21.9 tpy
Coke Battery 2 Combustion Stack	55.4 lb/hr 246 tpy	59.4 lb/hr 260.2 tpy	0.5 lb/hr 1.9 tpy	6.6 lb/hr 28.9 tpy

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These changes are necessary to correct errors made in the calculation of NOx and VOC emission rates when RACT limits were originally assigned to these coke battery combustion stacks in March 1998. ArcelorMittal understands that the original RACT limits were based on very limited data, often a single stack test performed in 1997. Testing in April 1998 already determined that the underfire combustion stack RACT limits were in error and DEP was notified of the problem. Unfortunately, the permit was issued without the relief that Koppers requested and the erroneous permit limits were adopted into the SIP.

ArcelorMittal understands that these corrected RACT emission limits will be established by DEP issuing an operating permit with the corrected RACT limits. DEP will then submit the corrected RACT emission limits to EPA for adoption into the SIP to replace the erroneous RACT limits currently in the SIP. Until the SIP is approved by EPA, Monessen will need a mechanism to certify compliance. That can occur through a Title V Compliance Schedule and/or through an agreed enforcement order that allows ArcelorMittal to operate the Monessen Coke Plant while waiting for the approved SIP.

We look forward to working with you to establish achievable RACT limits for the Monessen Coke Plant and a clear path forward for compliant operation that will enable ArcelorMittal to put more people to work at the plant.

Sincerely,



Rich Zavoda

cc: Douglas McWilliams
Paul Champagne, ArcelorMittal
Keith Nagel, ArcelorMittal
Greg Shamitko, ArcelorMittal