

consistently achieve, considering normal operational variability.

*Comment.* One commenter contends that EPA may use State regulations or permit limits to set floors only to the extent that such regulations and limits provide a demonstrably accurate picture of the relevant best source's actual performance. The commenter also states that EPA may only use the performance of a chosen floor technology to set floors if such technology is the only factor influencing the relevant best sources' actual performance. In addition, the floor must reflect actual performance, not what EPA thinks is achievable with a particular technology. The commenter concludes that all of EPA's floors suffer from the same basic defect in that "... they do not represent the actual performance of the relevant best sources."

*Response.* While EPA may use any reasonable approach to estimate the emissions control achieved in practice by the best-controlled similar source and the average emissions limitation achieved by the best-performing 12 percent of units in a category (or best 5 units for categories of less than 30 sources), we generally agree with the commenter that it is preferable to use actual performance test data to determine the MACT floor when there are adequate such data available to reasonably characterize the level of performance of the relevant sources. Our approach to identifying the MACT floors and establishing emission limits for the various emission points at integrated iron and steel facilities is consistent with this preference. Nonetheless, we did use State regulations and permit limits in some instances to help us estimate the MACT floor level of performance for certain emission points for which we have limited emission test data. However, in each case where we used such information, we also evaluated the available emission test data and other factors (such as type of control technology and the design parameters that affect performance) to confirm that the State limits reasonably reflect the actual performance of the best units.

In those instances where we had a sufficient quantity of emission test data to reasonably estimate the performance of the relevant best units, we applied a statistical approach to confirm and refine the emission estimates from proposal. This process involved application of a statistical approach to determine the average emission limitation achieved and account for normal operational variability. As described below, this approach ensures that the emissions estimates used to

identify the MACT floors reasonably reflect the level of control that is actually achieved by the relevant units over time, and under the most adverse foreseeable circumstances. (The full supplemental analysis is documented in the docket.) We had adequate test data to apply this approach to the emission limits for the sinter plant windboxes, casthouse control devices, primary control systems on open and closed hood BOPF, and control devices applied to hot metal transfer, desulfurization, and ladle metallurgy.

For each of these emission points we confirmed and refined our earlier estimates of the performance of the relevant best-performing units used to identify the MACT floors. At proposal, we estimated the performance of the best-controlled sources by identifying the best control technology that had been demonstrated for each source. We then evaluated the available data for sources using the best control technology and established emission limits for new and existing sources based on the level of control that sources with the technology had achieved.

Conceptually, our approach to estimating the performance of the best-controlled units is relatively straightforward. While we believe each emissions source test gives a good indication of the level of control achieved by the control device during the time of the emissions test, we do not believe a single emissions source test can be used as an estimate of the long term emissions performance achieved by that source. Normal variations in process and control device performance and other factors, such as the inherent imprecision of sampling and analysis, which cannot be controlled, will result in variability in the performance of every source over time, including the best-performing sources. We believe that the MACT floor performance level must reasonably account for the ordinary variability in the performance of the best-controlled sources over time and under the most adverse circumstances which can reasonably be expected to occur. As such, the MACT floor performance limit must include a consideration for the variability inherent in the process operations and the control device performance.

For today's final rule, when emissions source test data were available, we used a statistical method to confirm and refine the emission estimates used at proposal to identify the MACT floors for the relevant units. For each case where emissions source test data were available, we estimated the emissions limitation achieved for each source at

the 95th percentile using the one-sided z-statistic test (*i.e.*, the emission limitation which the emission point is estimated to be able to achieve 95 percent of the time). Assuming a normal distribution, the 95th percentile is 1.645 standard deviations above the mean. We chose the median of the 95th percentiles of the top-performing sources as the MACT floor. We used the median as the most representative estimate of the average emission limitation achieved by the best-performing five sources because the median points to the performance of an actual unit, with a specific combination of process operations and control device performance.

We evaluated several options to estimate the standard deviation that is needed to perform the analysis. We decided not to estimate the standard deviation for each source based on the available emissions data for just that one source since we have only three data points for most sources to use in estimating the standard deviation—one data point for each run in a three run emissions source test. Instead, we calculated a relative standard deviation (RSD) for each test and then averaged the RSD to provide our best estimate of the variability of the test data. The RSD is the standard deviation divided by the mean. The RSD provides a way to estimate the standard deviation for different values of the mean when there are too few data points to calculate the standard deviation directly. We believe this method adequately accounts for the normal variability in emissions source test data and provides a reasonable estimate of the long term emissions limitation achieved.

For new sources, the MACT floor is the emissions control that is achieved in practice by the best-controlled similar source. In order to confirm and refine our emissions estimates for new sources, we identified the best-controlled source based on test data and applied the same statistical techniques to determine the emission limitation achieved in practice for new sources. We calculated the upper 95th percentile of performance for the best-controlled source, and we chose this value as the emission limitation that can be achieved by new sources.

We believe the statistical technique used to account for general variability is appropriate and reasonable. However, we also recognize that some of the empirical test data may imply a level of accuracy that is not present throughout the entire data set. As a result, we have some reservations about identifying a MACT floor with a level of accuracy that is not warranted by the underlying data. Accordingly, we have concluded