

refine our earlier analysis. At proposal, we considered the combined data for hot metal transfer/desulfurization and ladle metallurgy. However, we believe it is necessary to separate the two operations because hot metal transfer/desulfurization is performed on molten iron before charging to the BOPF. Ladle metallurgy is performed on molten steel from the BOPF. Consequently, the two processes have different emission characteristics which suggests each should have a separate MACT floor determination.

We have test data from three source tests of desulfurization and hot metal transfer. The control device used in these source tests, and the only type of control used for these processes, is a baghouse. We reviewed the test data and the design features of these baghouses (such as air-to-cloth ratio), and we concluded that the baghouses that had been tested were among the best-performing units. The three tests ranged from 0.0016 to 0.012 gr/dscf. We calculated the 95th percentile for each plant. The median of the 95th percentiles for the top-performing plants is 0.006 gr/dscf. We rounded this value to two decimal places and chose 0.01 gr/dscf to represent the MACT floor for existing units.

The best-controlled source averaged 0.0016 gr/dscf with a 95th percentile of 0.003 gr/dscf, which we chose to represent the MACT floor for new sources.

We have test results for six source tests of typical ladle metallurgy operations. As with desulfurization, the control device used in these source tests, and the only type of control used for these processes, is a baghouse. We reviewed the test data and the design features of these baghouses (such as air-to-cloth ratio), and we concluded that the baghouses that had been tested were among the best-performing units. The five best-performing units ranged from 0.0021 to 0.0047 gr/dscf. We calculated the 95th percentile for each plant. The median of the 95th percentiles for the top-performing plants is 0.006 gr/dscf. We rounded this value to two decimal places and chose 0.01 gr/dscf to represent the MACT floor for existing units.

The best-controlled source with typical ladle metallurgy operations (lance injection, electromagnetic stirring, and alloy addition), averaged 0.0021 gr/dscf with a 95th percentile of 0.004 gr/dscf, which we chose to represent the MACT floor for ladle metallurgy for new sources.

6. Opacity Standard for Sinter Plant Discharge End

Comment. According to one commenter, EPA does not explain how the floor determination represents an accurate picture of the relevant best sources' actual performance, or how it knows that the best sources are not doing better than their permits require.

Response. We proposed an opacity limit of 20 percent for the sinter plant discharge end based on the five sources subject to the most stringent existing State regulations or permit limits. One plant has a 10 percent opacity limit, and four plants have a 20 percent opacity limit. We chose the median (20 percent) to represent the MACT floor.

A total of six of the seven operating plants use a capture and control system vented to a baghouse for the discharge end, and engineering knowledge of their design features and the nature of emissions indicate that these baghouses are the best demonstrated control technology for the discharge end. Following the end of the comment period, in order to confirm the appropriateness of the proposed opacity limit, we surveyed the industry to obtain additional opacity data for the discharge end. The only substantive data we obtained was from Ispat-Inland, which submitted the results of 1,745 hours of observations by EPA Method 9 (40 CFR part 60, appendix A) conducted over 4 years (1997 to 2000). Ispat-Inland is among the better-performing plants because it controls the discharge end, crusher, and hot screen by capturing emissions using local hooding and ventilation and venting them to a baghouse for collection. Consequently, we believe that the control system at Ispat-Inland is representative of the best-performing sources.

At Ispat-Inland, approximately one percent of the hourly opacity observations had a 6-minute average that exceeded 20 percent opacity, and the plant met the proposed limit 99 percent of the time. Although many of the observations were below 20 percent opacity, the limit accommodates the normal variability in the process operations and control equipment. The data clearly show that Ispat-Inland is not consistently performing substantially better than what their permit requires and that our proposed limit is a reasonable picture of what the best-controlled sources can achieve.

Comment. Seven commenters contend that EPA has not shown that existing State limits are consistently achievable under the worst foreseeable conditions over time. The commenters claimed that opacity data they submitted to EPA

demonstrates that the limits are not consistently achievable by well-operated and maintained sinter plants. The EPA must reevaluate the achievability of the proposed opacity standard.

Response. None of the commenters provided evidence that facilities subject to the identified State limits have been unable to meet those limits (e.g., in the form of reported violations). Moreover, as discussed in the previous response, approximately 99 percent of the hourly opacity observations at Ispat-Inland never had a 6-minute average in excess of 20 percent opacity. Performance improved to 99.9 percent compliance for more recent, 1998 to 2000, observations. As stated previously, these data show that the opacity limit based on existing State limits is achievable because it has been achieved on a continuing basis. Our analysis considered all of the data that we could obtain, and the only data available was that for Ispat-Inland which we discussed in detail.

7. Opacity Standard for Blast Furnace Casthouse

Comment. One commenter states that we failed to explain how the floor we selected reflects the best-performing 12 percent of the blast furnace casthouses. The commenter further states that we failed to pursue and collect from the affected sources or State and local agencies available opacity data, and we undermined the floor-setting process of the CAA.

Response. For blast furnace casthouses, we established the MACT floor as a 20 percent opacity limit based on the five sources subject to the most stringent existing State regulations or permit limits. Two casthouses are subject to a 15 percent opacity limit, and the next most stringent limit is 20 percent, which is applied to 22 of the 37 blast furnace casthouses.

Following the end of the comment period, in order to confirm the appropriateness of the proposed opacity limit, we obtained additional opacity data for operating blast furnace casthouses to supplement the limited data we had available at proposal. We now have opacity data for 25 of the 37 existing blast furnace casthouses, and the data range in coverage from a 1-hour test to several years of observations. (Although there were 39 blast furnace casthouses at proposal, two have subsequently shut down.) We closely examined the data that covered a reasonably long period of time (e.g., at least 1 year to capture seasonal variations), which included 12 of the 25 casthouses for which we had data. We