

A justification for the proposed revised limits is discussed further in section III.A of this document.

#### *B. What Are the Proposed Changes to the Compliance Provisions?*

Section 63.847(a) of the rule currently requires the owner or operator to demonstrate initial compliance by specified dates. The proposed amendments would clarify the introductory text of paragraph (a) by replacing the phrase "demonstrate initial compliance" with the word "comply." This proposed change distinguishes the compliance date of the rule from the date by which a plant must actually conduct their initial performance test.

Section 63.847(c) of the rule currently requires the owner or operator to conduct an initial performance test during the first month following the applicable compliance date. For a new or reconstructed affected source, we are proposing that the owner or operator conduct the initial performance test by:

- The 180th day after startup for a potline (or potroom group). The 180-day period would start when the first pot in a potline (or potroom group) is energized.
- The 45th day after startup for an anode bake furnace. The 45-day period would start at the beginning of the first anode bake cycle.
- The 30th day after startup for a pitch storage tank (if the owner or operator elects to conduct an initial performance test rather than a design evaluation). Today's proposed amendments would not change the timing of the initial performance test for existing affected sources (*i.e.*, the initial performance test must still be conducted during the first month after the compliance date).

We are also proposing to add performance test dates following startup of an existing potline or anode bake furnace that was shut down at the time compliance would have otherwise been required and subsequently restarted. Again, we are proposing 180 days after startup for a potline (or potroom group) and 45 days for an anode bake furnace. In addition, we are proposing to amend the notification requirements in § 63.850(a) of the rule to require advance notice to the Administrator at least 30 days before restart of an affected source that has been shut down.

Appendix A to subpart LL shows the requirements in the General Provisions (40 CFR part 63, subpart A) that do not apply to primary aluminum reduction plants. We are also proposing to amend appendix A to reflect the changes in performance test dates and the new

notification requirement. A detailed explanation for the proposed changes to the compliance provisions follows in section III.B of this document.

### **III. Rationale for the Proposed Amendments**

#### *A. Why Are We Proposing To Revise the POM Emission Limitation for VSS2 Potlines?*

We received a petition to revise the POM limit for VSS2 potlines, which the petitioner said was not achievable. The petitioner believes that the limited data used to develop the original emission limit did not reflect the normal variability of VSS2 potlines. The petitioner submitted additional test data and requested that we reevaluate the achievability of the original emission limit. We agreed to consider the petition and to analyze the additional data.

When we promulgated the current rule, we based the POM limit for VSS2 potlines on data that consisted of seven performance tests from two potlines. We used data for only two of the potlines in this subcategory because that was the only data available for calculating the MACT floor and determining the MACT level of control. At that time, we assumed that these tests for two potlines represented the performance level achievable by the best performing VSS2 potlines. This assumption was based on the fact that VSS2 potlines are all of the same design, operate in the same manner, use the same feed materials, and employ the same equipment and work practices to control emissions. We had no reason to believe that the original POM limit associated with MACT could not be achieved by the affected sources in the subcategory.

We have subsequently obtained data for the five best-performing potlines in the subcategory from additional testing performed during 1999 and 2000. The database consists of information from 88 runs, which is equivalent to 29 performance tests, because one test is the average of three runs. The new data cover all months of the year, which means that seasonal variations that may affect emission control performance (such as changes in ventilation rates) are included. The original data covered a period of only 4 months, which does not include seasonal variations and does not capture the true variability over time. The expanded database is far superior to the original database and more representative of the VSS2 subcategory.

The expanded database indicates that the two potlines we used to develop the original emission limit are actually the two best-performing potlines in the subcategory. Moreover, the data indicate

that the MACT limit in the current rule is not achievable even by these two potlines on a continuing basis. We have revised the MACT floor based on the expanded database which is now available. The revised MACT floor level of control is 5.7 lb/ton of aluminum instead of 3.6 lb/ton. We derived this new MACT floor level of control from the currently available data using the same statistical methodology which we employed in the original rulemaking.

Since the data we originally utilized to establish an emission standard for this subcategory indicate that lower emissions have been attained in some circumstances, we also evaluated the new data to determine whether a level of control beyond the revised MACT floor would be achievable by the sources in this subcategory. We examined the factors affecting the operation of the potlines and the techniques used to control emissions. The VSS2 potlines are all designed and operated in the same manner and use the same raw materials. The same emission controls and work practices are also applied to each of the potlines. We have not identified any obvious reasons for the variability in performance other than the normal variability associated with processes, testing procedures, and temporal variations. In fact, the performance of the various potlines from test to test overlaps, and although there are small differences in average performance, the overall distributions of performance for the VSS2 potlines are similar.

We have identified no changes in processes, work practices, or control strategies that could be implemented to improve the performance of an individual potline. Consequently, we believe it is not practicable for sources in the VSS2 subcategory to achieve levels of control beyond the MACT floor on a consistent basis. Therefore, we are proposing to revise the emission limit to 5.7 lb/ton, to represent the MACT level of control for VSS2 potlines.

The petitioner had requested that we revise the emission limit to 7.2 lb/ton; however, our analysis indicates that the revised emission limit should be 5.7 lb/ton. We discussed with the petitioner what test data should be used to assess emission control performance and what procedures should be used to analyze the data. Our goal was to be consistent with the approach used for the original limit and also for limits developed for other subcategories of potlines. Based on these discussions, we believe that the petitioner understands and accepts our rationale for the new emission limit we are proposing. Although this numerical emission limit differs from the limit