

to demonstrate initial compliance with the applicable emission limits of chlorine, hydrochloric acid, PM, PM₁₀, and dioxin/furan. The EPA Method 26 or 26A in 40 CFR part 60, appendix A is the reference method for chlorine and hydrochloric acid. The reference method for PM is EPA Method 5 or 5D in 40 CFR part 60, appendix A. The reference method for PM₁₀ is EPA Method 201 in 40 CFR part 60, appendix A. The EPA Method 23 of 40 CFR part 60, appendix A is the reference method for dioxin/furan. The proposed rule would also require owners/operators to establish operating limits for scrubber pressure drop and scrubber water flow rate concurrent with the performance of the initial compliance tests.

F. What Are the Continuous Compliance Requirements?

The proposed rule would require primary magnesium refineries to conduct performance tests at least twice during each title V operating permit term (at midterm and renewal) to demonstrate continuous compliance with the emission limits. Plants would also be required to monitor operating parameters for control devices subject to operating limits and carry out the procedures in their operation and maintenance plan.

For wet scrubbers, plants would be required to use continuous parameter monitoring systems (CPMS) to measure and record the hourly average pressure drop and scrubber water flow rate. To demonstrate continuous compliance, plants would keep records documenting conformance with the monitoring requirements and the installation, operation, and maintenance requirements for CPMS.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

We selected the proposed notification, recordkeeping, and reporting requirements to be consistent with the NESHAP General Provisions (40 CFR part 63, subpart A). One-time notifications are required by EPA to know what facilities are subject to the standards, if a facility has complied with the proposed rule requirements, and when certain events such as performance tests and performance evaluations are scheduled. Semiannual compliance reports containing information on any deviation from the proposed rule requirements are also required. These reports would include information on any deviation that occurred during the reporting period; if no deviation occurred, only summary

information would be required. Consistent with the NESHAP General Provisions (40 CFR part 63, subpart A), we also require an immediate report of any startup, shutdown, or malfunction where the actions taken in response were not consistent with the startup, shutdown, and malfunction plan. This information is needed to determine if changes need to be made to the plan. Records would be required of information needed to document compliance with the rule requirements. These notifications, reports, and records are the minimum needed to ensure initial and continuous compliance.

III. Rationale for Selecting the Proposed Standards

A. How Did We Select the Affected Source?

Affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a CAA section 112(c) source category or subcategory for which a CAA section 112(d) standard or other relevant standard is established pursuant to CAA section 112. The affected source may be the same collection of equipment and processes as the source category or it may be a subset of the source category. For each rule, we decide which individual pieces of equipment and processes warrant separate standards in the context of the CAA section 112 requirements and the industry operating practices.

We considered three different approaches for designating the affected source: the entire primary magnesium refinery, groups of emission points, and individual emission points. In selecting the affected sources for the proposed rule, we identified the HAP-emitting operations, the HAP emitted, and the quantity of HAP emissions from the individual or groups of emission points. We concluded that designating the entire primary magnesium refinery as the affected source is the most appropriate approach. This conclusion is consistent with the requirements for defining affected source provided in § 63.2 of the General Provisions. The major emission points include each spray dryer, magnesium chloride storage bin, melt/reactor, and launder off-gas system. Therefore, the proposed rule includes requirements for the control of emissions from each spray dryer, magnesium chloride storage bin, melt/reactor, and launder off-gas system.

B. How Did We Select the Pollutants?

The proposed standards would establish emission limits for chlorine,

hydrochloric acid, PM, PM₁₀, and dioxin/furan. Particulate matter was selected as a surrogate for HAP metal emissions which account for less than one-tenth of one percent of total PM emissions. The principal HAP metals emitted include trace quantities of phosphorous, manganese, and chromium, with lesser quantities of arsenic, antimony, and mercury. With the exception of elemental mercury, metal HAP emissions, when released, are a constituent of total PM. As a result, control technologies applied for PM control will coincidentally achieve comparable levels of control of these pollutants. Standards requiring good control of PM emissions will also achieve good control of metal HAP emissions. Establishing separate standards for these individual HAP would result in no additional reductions beyond that achieved using PM as a surrogate pollutant.

Given that the US Magnesium refinery generates about three pounds of chlorine to each pound of magnesium produced, chlorine and hydrochloric acid are by far the most significant HAP pollutants potentially emitted from primary magnesium refining. As such, both chlorine and hydrochloric acid were selected for the proposed rule.

Lastly, the proposed rule would establish a separate emission limit for dioxin/furan discharged from the melt/reactor stack because of the high toxicity associated with very low exposures to these compounds and their persistence and bioaccumulative effects in the environment.

C. How Did We Determine the Bases and Levels of the Proposed Standards?

Since there is only one primary magnesium refinery in the source category, the MACT floor for both existing and new sources is established by the performance of each emissions control system operating at that source. We do not anticipate the construction of any new sources in this source category. The State of Utah, Department of Environmental Quality (UDEQ) issued a title V operating permit dated October 11, 2001 for US Magnesium Corporation. The permit contains emission limitations for chlorine, hydrochloric acid, PM, and PM₁₀ established by the UDEQ. The permit does not contain limits for dioxin/furan.

We conducted our own independent assessment of the emissions test data and concluded that the emission limitations established in the source's title V operating permit are appropriate and achievable. Although the limited test results indicate the permit limits are achievable, the data also show that the