

procedures that will be used, along with their action level.

The final rule establishes the duty for owners and operators to routinely wash surfaces throughout the plant where liquid mercury could accumulate. Owners and operators are required to prepare and follow a written washdown plan detailing how and how often specific areas specified in the final rule are to be washed down to remove any accumulations of liquid mercury.

Finally, the final rule requires owners or operators to record and report the mass of virgin mercury added to cells. Virgin mercury is defined as mercury that has not been processed in an onsite mercury thermal recovery unit or otherwise recovered from mercury-containing wastes onsite. In order to establish a baseline of mercury being added to the cells, the final rule requires owners or operators to submit the mass of virgin mercury added to cells for the 5 years preceding the compliance date.

E. What Are the Operation and Maintenance Requirements?

The final rule requires that each owner and operator always operate and maintain each affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing air emissions, as required under 40 CFR 63.6(e)(1)(i) of the NESHAP General Provisions. The final rule requires each owner and operator to prepare and implement a written startup, shutdown, and malfunction plan according to the operation and maintenance requirements in § 63.6(e)(3) of the NESHAP General Provisions.

F. What Are the General Compliance Requirements?

The final rule requires compliance with the emission limitations and applicable work practice requirements at all times, except during periods or startup, shutdown, and malfunction as defined in 40 CFR 63.2. The owner or operator must develop and implement a written startup, shutdown, and malfunction plan according to the requirements in 40 CFR 63.6(e)(3).

G. What Are the Initial Compliance Requirements?

The final rule requires compliance with emission limitations and work practices by December 19, 2006.

To demonstrate initial compliance with the emission limits for by-product hydrogen streams and end box ventilation system vents, the final rule requires each owner or operator to conduct performance tests using 40 CFR

part 61, appendix A, Method 102 for by-product hydrogen streams, and 40 CFR part 61, appendix A, Method 101 or 101A for end box ventilation system vents. In addition, the final rule also includes procedures for reducing the mercury emissions data collected during the performance test to units of the standard (*i.e.*, g Hg/Mg Cl₂). Each performance test is required to consist of a minimum of three 2-hour runs with a minimum sample volume of 1.7 dscm and must be conducted in accordance with a site-specific test plan prepared according to the performance test quality assurance program requirements in § 63.7(c)(2) of the NESHAP General Provisions.

Concurrent with each test run, each owner or operator is required to determine the quantity of chlorine produced using an equation contained in the final rule which calculates chlorine production based on cell line electric current load.

Initial compliance is demonstrated by showing that the total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents for the test are less than 0.076 g Hg/Mg Cl₂ for plants with end box ventilation systems, or 0.033 g Hg/Mg Cl₂ for plants without end box ventilation systems.

In addition, if the final control device is not a nonregenerable carbon adsorber and continuous compliance will be demonstrated using the periodic monitoring option, the owner or operator is required to monitor the following parameters during the performance test to establish either a maximum or minimum monitoring value, as applicable for the control device:

- Exit gas temperature from uncontrolled streams;
- Outlet temperature of the gas stream for the final cooling system when no control devices other than coolers or demisters are used;
- The outlet temperature of the gas stream from the final cooling system when the cooling system is followed by a molecular sieve or regenerative carbon adsorber;
- Outlet concentration of available chlorine, pH, liquid flow rate, and inlet gas temperature of chlorinated brine scrubbers and hypochlorite scrubbers;
- The liquid flow rate and exit gas temperature for water scrubbers;
- The inlet gas temperature of regenerative carbon adsorption systems; or
- The temperature during the heating phase of the regeneration cycle for

regenerative carbon adsorbers or molecular sieves.

As part of the initial compliance demonstration, the owner or operator must determine the maximum or minimum monitoring value by calculating the average of the data collected during the performance test. The exception to this is when the final control device is a regenerative carbon adsorber. In this case, the highest temperature reading during the performance test must be used.

To demonstrate initial compliance with the mercury thermal recovery unit emission limits, the final rule requires that owners or operators conduct a performance test for each vent using 40 CFR part 61, appendix A, Method 101 or 101A. The owner or operator is required to develop and follow a site-specific test plan according to § 63.7(c)(2) of the NESHAP General Provisions. Three test runs would need to be conducted at a point after the last control device for each vent.

Initial compliance is achieved if the average vent mercury concentration is less than 23 mg/dscm for each oven type vent or 4 mg/dscm for each non-oven type vent. In addition, if the final control device is not a nonregenerable carbon adsorber and continuous compliance will be demonstrated using the periodic monitoring option, the owner or operator is required to monitor the same parameters as required for by-product hydrogen streams and end box ventilation system vents and to establish the appropriate minimum or maximum monitoring value for the control device.

H. What Are the Continuous Compliance Requirements?

The final rule contains two options for continuous compliance with the emission limit for by-product hydrogen streams and end box ventilation system vents and the emission limit for mercury thermal recovery unit vents: Continuous monitoring using mercury continuous emissions monitors, or periodic monitoring using testing. Both of these options will produce results in the units of the standard, so continuous compliance will be demonstrated through a direct comparison of monitoring system results.

If mercury continuous emission monitors are used to comply with the final rule, a site-specific monitoring plan must be developed to ensure proper control device evaluation, and a performance evaluation is required according to the monitoring plan. For each monitor, the final rule requires the site-specific monitoring plan to address installation and siting, monitor performance specifications,