

UTAH STATE PLAN
FOR
IMPLEMENTATION OF EMISSION CONTROLS FOR
EXISTING DESIGNATED FACILITIES

**SECTION IV, PLAN FOR
MERCURY EMISSIONS AT
COAL-FIRED ELECTRIC GENERATING UNITS**

Implementation of 40 CFR 60 Subpart HHHH

**Adopted by the Air Quality Board
March 14, 2007**

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A. Introduction

A federal plan to reduce mercury (Hg) emissions from coal fired electric generating units (EGUs) has been promulgated as a revision to the New Source Performance Standards, under the authority of section 111 of the Clean Air Act.

Emission standards for mercury emissions have been included at 40 CFR 60 subpart Da, and will apply to any applicable source which commences construction after January 30, 2004.

Subpart B of 40 CFR 60 requires a Designated Facilities Plan (DFP or the Plan) to address sources to which subpart Da would have applied had construction not commenced prior to the applicable date. This document is Utah's Plan to meet the requirements of subpart B.

As part of a nationwide control strategy, each state has been allocated an annual mercury budget for each of two program phases: 2010 through 2017, and 2018 and thereafter.

The Designated Facilities Plan required under paragraph (h)(1) of 40 CFR 60.24 is to contain emission standards and compliance schedules that will result in compliance with the State's annual EGU mercury budget. It must also require EGUs to comply with the monitoring, record keeping, and reporting provisions of 40 CFR part 75 with regard to mercury emissions, and show that the State has adequate legal authority to adopt and require such elements.

The EPA has presented subpart HHHH (the "Model Rule") as a means to implement a national trading program for mercury allowances, and thereby meet the required elements of a DFP. If a state adopts regulations substantively identical to subpart HHHH, incorporates such subpart by reference into its regulations, or adopts regulations that differ substantively from such subpart only in terms of its allowance allocation and notification provisions, then the State's Plan will be automatically approved as meeting the requirements related to compliance with the annual mercury budgets.

R307-224 directly incorporates much of subpart HHHH. This Plan supplements the incorporated elements of subpart HHHH and specifies allocation and notification provisions for the mercury allowances to be used in the cap and trade program. This Plan itself is incorporated by reference at R307-220-5.

40 CFR 60, Standards of Performance for New Stationary Sources (NSPS), including subpart Da, is incorporated by reference into the Utah Administrative Code at R307-210.

Together, R307-210, R307-224, and this Plan (incorporated into the rules at R307-220) regulate mercury emissions from any coal-fired electric generating unit (EGU) as defined in 40 CFR 60.24 serving a generator greater than 25 megawatts nameplate capacity.

B. Departures from the Model Rule

1. Portions of HHHH Incorporated by Reference at R307-224.

The following sections of 40 CFR Part 60, subpart HHHH (the Model Rule) effective on June 9, 2006, have been adopted and incorporated by reference into the Utah Administrative Code in R307-224-2.

- * Hg Budget Trading Program General Provisions

Sections 60.4101 through 60.4108

- * Hg Designated Representative for Hg Budget Sources

Sections 60.4110 through 60.4114

- * Permits

Sections 60.4120 through 60.4124

- * Hg Allowance Allocations

Section 60.4142, paragraphs (c)(2) through (c)(4)

These paragraphs outline the procedures for obtaining Hg allowances from the new unit set-aside. The designated representative must submit a written request for such allowances, in an amount not exceeding the unit's emissions for the prior control period, and the permitting authority will then review the request and make allowances as appropriate.

- * Hg Allowance Tracking System

Sections 60.4151 through 60.4157

- * Hg Allowance Transfers

Sections 60.4160 through 60.4162

- * Monitoring and Reporting

Sections 60.4170 through 60.4176

2. Portions of HHHH Specifically Not Incorporate by Reference.

The following sections of 40 CFR Part 60, subpart HHHH, effective on June 9, 2006, specifically have **not** been adopted and incorporated by reference into the Utah Administrative Code.

Hg Allowance Allocations

Section 60.4140; State Trading Budgets

This section includes mercury budgets for each of the affected States and Tribes for control periods in each phase of the program.

Section 60.4141; Timing Requirements for:

paragraph (a)

By 2006, the model rule requires the permitting authority to declare to the Administrator the number of mercury allowance allocations for 2010-2014 (not including new unit set-aside allowances.)

paragraph (b)

By 2008 and every year thereafter, the model rule requires the permitting authority to declare to the Administrator the number of mercury allowance allocations it will issue for the control period 6 years hence (not including new unit set-aside allowances.) If the permitting authority fails to make this declaration, the Administrator shall make certain assumptions regarding such issuance.

paragraph (c)

In 2010 and every year thereafter, the model rule requires the permitting authority to declare to the Administrator the number of mercury allowances to be issued from the new unit set-aside. If the permitting authority fails to make this declaration, the Administrator shall make certain assumptions regarding such issuance.

Section 60.4142; Hg Allowance Allocations

paragraph (a)

In this paragraph, the model rule outlines procedures for determining the baseline heat input for both new and existing EGUs. This then becomes the basis for allocating mercury allowances.

paragraph (b)

In this paragraph, the model rule directs the permitting authority to allocate, to the EGUs, 95 percent of the State's mercury budget for the control periods in 2010-2014, and 97 percent in 2015 and beyond.

paragraph (c)(1)

In this paragraph, the model rule directs the permitting authority to set aside the remaining 5 / 3 percent of the State's mercury budget (for the control periods in 2010-2014 and the control periods in 2015 and beyond respectively) for distribution to new units.

paragraph (d)

In this paragraph, the model rule stipulates that, if there are any unallocated mercury allowances remaining in the new unit set-aside, the permitting authority would allocate them to the established units on the basis of heat input.

3. Substitutions for Portions of HHHH Not Incorporated by Reference.

Instead, the following shall apply.

(a) State Trading Budget

The Utah State trading budget for annual allocations of Hg allowances for each of the control periods in 2010 through 2017 shall be 0.506 tons (16,192 oz.) The Utah State trading budget for annual allocations of Hg allowances for each of the control periods thereafter shall be 0.200 tons (6,400 oz.)

(b) Notification of Hg Allowance Allocations

(i) By November 17, 2006, the Permitting Authority will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with (e) below and (c) below, for the control periods in 2010, 2011, and 2012.

(ii) By October 31, 2009, the Permitting Authority will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with (e) below and (c) below, for the control periods in 2013, 2014 and 2015.

(iii) By October 31, 2010 and October 31 of each year thereafter, the Permitting Authority will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with (e) below and:

(A) in accordance with (c) below, for the control period in the sixth year after the year of the deadline for submission under this section; and

(B) in accordance with (d) below, for the control period in the year of the applicable deadline for submission under this section.

(iv) If the Permitting Authority fails to submit to the Administrator the Hg allowance allocations in accordance with (b)(ii) or (b)(iii) above, the Administrator will assume that the allocations of Hg allowances for the applicable control period are the same as for the control period that immediately precedes the applicable control period, except that:

(A) if the applicable control period is in 2018, the Administrator will assume that the allocations equal the allocations for the control period in 2017 multiplied by a factor of (6400/16192), and

(B) any Hg budget unit that would be otherwise allocated Hg allowances under (c) below as well as under (d) for the applicable control period will be assumed to be allocated no Hg allowances under (d).

(c) Hg Allowance Allocations

(i) For each control period in 2010 and thereafter, the Permitting Authority will allocate to all Hg budget units that have a baseline heat input, as determined under (e) below, a total amount of Hg allowances equal to 90 percent for a control period in 2010 through 2017, and 90 percent for a control period in 2018 and thereafter, of the amount of ounces of Hg emissions in the Utah State trading budget under (a) above, except as provided in (d)(iii).

(ii) The Permitting Authority will allocate Hg allowances to each Hg Budget unit under (c)(i) above in an amount determined by multiplying the total amount of Hg allowances allocated under (c)(i) above by the ratio of the baseline heat input of such Hg Budget unit to the total amount of baseline heat input of all such Hg Budget units and rounding to the nearest whole allowance (ounce) as appropriate.

(d) Hg Allowance Allocations: New Unit Set-Aside

(i) The Permitting Authority will establish a separate new unit set-aside for each control period. Each new unit set-aside will be allocated Hg allowances equal to 10 percent for a control period in 2010 through 2017, and 10 percent for a control period in 2018 and thereafter, of the amount of ounces of Hg emissions in the State trading budget under (a).

(ii) For each control period in 2010 and thereafter, the Permitting Authority will allocate Hg allowances to Hg Budget units that commenced operation on or after January 1, 2001, and do not yet have a baseline heat input, as determined under (e) below, in accordance with R307-224-2 (1)(b).

(iii) If, after completion of the procedures under R307-224-2 (1)(b), any unallocated Hg allowances remain in the new unit set-aside for the control period, the permitting authority will allocate these allowances to each budget unit that was allocated Hg allowances under (c)(i) above using the procedure described in (c)(ii).

(e) Hg Allowance Allocations: Basis for Distribution

(i) The baseline heat input (in MMBtu) used with respect to Hg allowance allocations under (c) above for each Hg Budget unit commencing operation before January 1, 2001, will be the average of the three highest amounts of the unit's control period heat input, resulting from the combustion of coal, during a succession of five-year periods as outlined below. The first such five-year period shall commence with the year 2000 and run through 2004. It shall be used as the basis for allocations submitted to the Administrator under paragraphs (b)(i) and (b)(ii). The next five-year period shall commence with the year 2005. It shall be used as the basis for allocations submitted to the Administrator, in the years 2010 through 2014, in accordance with paragraph (b)(iii.) Subsequent five-year periods shall commence with the years 2010, 2015, and so on. In each case, the most recent data set shall be used as the basis for allocations submitted to the Administrator in accordance with paragraph (b)(iii.)

(ii) The baseline heat input (in MMBtu) used with respect to Hg allowance allocations under (c) above for each Hg Budget unit commencing operation on or after January 1, 2001, and operating each calendar year during a period of five or more consecutive calendar years, will be the average of the three highest amounts of the unit's total converted control period heat input, resulting from the combustion of coal, over the first such five years. A unit's converted control period heat input for a calendar year is equal to whichever of the following is applicable:

(A) Except as provided in (B) or (C) below, the control period gross electrical output of the generator or generators served by the unit multiplied by 7.9 MMBtu/MW-hr. If a generator is served by 2 or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year; or

(B) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the total heat energy (in MMBtu) of the steam produced by the boiler during the control period, divided by 0.8; or

(C) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3.413 MMBtu/MW-hr, plus the total heat energy (in

MMbtu) of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8.

(iii) For the purpose of determining allocations of Hg allowances, a unit's control period heat input for a calendar year under (e)(i) above and a unit's total ounces of Hg emissions under R307-224-2 (1)(b) will be determined in accordance with 40 CFR part 75 to the extent that the unit was otherwise subject to the requirements of part 75 for that year. To the extent that the unit was not otherwise subject to the requirements of part 75 for that year, this information will be based on the best available data reported to the executive secretary for the unit.

C. The Clean Air Mercury Rule (CAMR)

Utah has incorporated most of the model rule by reference into its Administrative Code.

As of this date (November 1, 2006), EPA has yet to include the amendments that comprise the CAMR in the Code of Federal Regulations. Instead it appears in the various Federal Register notices cited below.

1. Final Rule

Standards of Performance for New and Existing Stationary Sources: Electric Steam Generating Units (the Clean Air Mercury Rule) (70 FR 28606, May 18, 2005.)

This final rule includes revisions to title 40, chapter I parts 60 (New Source Performance Standards), 72 (Permits Regulation), and 75 (Continuous Emission Monitoring) of the Code of the Federal Regulations.

The model rule itself appears as part of this rulemaking at 40 CFR 60 subpart HHHH (70 FR, page 28657).

2. Notice of Reconsideration

Notice of Reconsideration of Final Rule and Request for Public Comment Regarding the May 18, 2005 Final Clean Air Mercury Rule (70 FR 62213, October 28, 2005.)

This was published in response to seven specific issues, raised in four petitions, concerning the final rule.

3. Final Rule; Notice of Final Action on Reconsideration

Final Rule; Notice of Final Action on Reconsideration (71 FR 33388, June 9, 2006.)

This final action resulted in one clarification and two revisions to the CAMR.

The applicability to the CAMR was clarified in the definition of Electric Generating Unit. This determination was applied consistently in two locations: 40 CFR 60.24(h)(8) and subpart HHHH, 40 CFR 60.4104.

The two changes that were made relate to:

- * the unit-level Hg emission allocations within the 2010 phase I statewide Hg emission budgets. This change affected minor changes to the budgets for seven states.
- * the statistical analysis used for the NSPS limits in subpart Da. EPA did not revise its statistical basis for the analysis, but did correct several arithmetic errors effectively revising most of the proposed limits.