

3745-103-45

Reduced utilization for combustion sources.

[Comment: For dates and availability of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see paragraph (C) of rule 3745-103-01 of the Administrative Code titled "Referenced materials."]

(A) Calculation of utilization.**(1) Annual utilization.**

- (a) Except as provided in paragraph (A)(1)(b) of this rule, annual utilization for the calendar year shall be calculated as follows:

Annual utilization = actual heat input + reduction from improved efficiency

Where,

- (i) "Actual heat input" shall be the actual annual heat input (in MMBtu) of the opt-in source for the calendar year determined in accordance with appendix F of 40 CFR Part 75.
- (ii) "Reduction from improved efficiency" shall be the sum of the following four elements:
- (a) Reduction from demand side measures that improve the efficiency of electricity consumption;
- (b) Reduction from demand side measures that improve the efficiency of steam consumption;
- (c) Reduction from improvements in the heat rate at the opt-in source; ~~and~~
- (d) Reduction from improvement in the efficiency of steam production at the opt-in source. Qualified demand side measures applicable to the calculation of utilization for opt-in sources are listed in appendix A, section 1 of 40 CFR Part 73.
- (iii) "Reduction from demand side measures that improve the efficiency of electricity consumption" shall be a good faith estimate of the

expected kilowatt hour savings during the calendar year for such measures and the corresponding reduction in heat input (in MMBtu) resulting from those measures. The demand side measures shall be implemented at the opt-in source, in the residence or facility to which the opt-in source delivers electricity for consumption or in the residence or facility of a customer to whom the opt-in source's utility system sells electricity. The verified amount of such reduction shall be submitted in accordance with paragraph (C)(2) of this rule.

- (iv) "Reduction from demand side measures that improve the efficiency of steam consumption" shall be a good faith estimate of the expected steam savings (in MMBtu) from such measures during the calendar year and the corresponding reduction in heat input (in MMBtu) at the opt-in source as a result of those measures. The demand side measures shall be implemented at the opt-in source or in the facility to which the opt-in source delivers steam for consumption. The verified amount of such reduction shall be submitted in accordance with paragraph (C)(2) of this rule.
- (v) "Reduction from improvements in heat rate" shall be a good faith estimate of the expected reduction in heat rate during the calendar year and the corresponding reduction in heat input (in MMBtu) at the opt-in source as a result of all improved unit efficiency measures at the opt-in source and may include supply-side measures listed in appendix A, section 2.1 of 40 CFR Part 73. The verified amount of such reduction shall be submitted in accordance with paragraph (C)(2) of this rule.
- (vi) "Reduction from improvement in the efficiency of steam production at the opt-in source" shall be a good faith estimate of the expected improvement in the efficiency of steam production at the opt-in source during the calendar year and the corresponding reduction in heat input (in MMBtu) at the opt-in source as a result of all improved steam production efficiency measures. In order to claim improvements in the efficiency of steam production, the designated representative of the opt-in source must demonstrate to the satisfaction of the USEPA that the heat rate of the opt-in source has not increased. The verified amount of such reduction shall be submitted in accordance with paragraph (C)(2) of this rule.
- (vii) Notwithstanding paragraph (A)(1)(a)(ii) of this rule, where two or more opt-in sources, or two or more opt-in sources and phase I

units, include in their annual compliance certification reports their good faith estimate of kilowatt hour savings or steam savings from the same specific measures:

(a) The designated representatives of all such opt-in sources and phase I units shall submit with their annual compliance certification reports a certification signed by all such designated representatives. The certification shall apportion the total kilowatt hour savings or steam savings among such opt-in sources and phase I units.

(b) Each designated representative shall include in their annual compliance certification report only their share of kilowatt hour savings or steam savings.

(b) For an opt-in source whose opt-in permit becomes effective on a date other than January first,

Annual utilization for the first year shall be calculated as follows:

$$\text{Annual Utilization} = \frac{\text{Actual Heat Input For The Remaining Calendar Quarters}}{\text{}} + \frac{\text{Reduction From Improved Efficiency for The Remaining Calendar Quarters}}{\text{}}$$

Where "actual heat input" and "reduction from improved efficiency" are defined as set forth in paragraph (A)(1)(a) of this rule but are restricted to data or estimates for the "remaining calendar quarters", which are the calendar quarters that begin on or after the date the opt-in permit becomes effective.

(2) Average utilization. Average utilization for the calendar year shall be defined as the average of the annual utilization calculated as follows:

(a) For the first two calendar years after the effective date of an opt-in permit taking effect on January first, average utilization will be calculated as follows:

(i) Average utilization for the first year = annual utilization_{year 1}

Where "annual utilization_{year 1}" is as calculated under paragraph (A)(1)(a) of this rule.

(ii) Average utilization for the second year

$$= \left(\frac{\text{Revised Annual Utilization}_{\text{Year 1}} + \text{Annual Utilization}_{\text{Year 2}}}{2} \right)$$

Where,

"Revised annual utilization_{year 1}" is as submitted for the year under paragraph (C)(2)(a)(ii) of this rule and adjusted under paragraph (C)(2)(c) of this rule; "annual utilization_{year 2}" is as calculated under paragraph (A)(1)(a) of this rule.

(b) For the first three calendar years after the effective date of the opt-in permit taking effect on a date other than January first, average utilization ~~will~~shall be calculated as follows:

(i) Average utilization for the first year after opt-in = annual utilization_{year 1} where "annual utilization_{year 1}" is as calculated under paragraph (A)(1)(b) of this rule.

(ii) Average utilization for the second year after opt-in

$$= \left(\frac{\text{Revised Annual Utilization}_{\text{Year 1}} + \text{Annual Utilization}_{\text{Year 2}}}{\left(\begin{array}{c} \text{Number Of Months} \\ \text{In Year 1 And Year 2 For Which} \\ \text{The Opt-In Permit Is Effective} \end{array} \right)} \right) \times 12$$

Where,

"Revised annual utilization_{year 1}" is as submitted for the year under paragraph (C)(2)(a)(ii) of this rule and adjusted under paragraph (C)(2)(c) of this rule; and "annual utilization_{year 2}" is as calculated under paragraph (A)(1)(b) of this rule.

(iii) Average utilization for the third year after opt-in

$$= \left(\frac{\text{Revised Annual Utilization}_{\text{Year 1}} + \text{Revised Annual Utilization}_{\text{Year 2}} + \text{Annual Utilization}_{\text{Year 3}}}{\left(\begin{array}{c} \text{Number Of Months} \\ \text{In Year 1, Year 2, And Year 3} \\ \text{For Which The Opt-In Permit Is Effective} \end{array} \right)} \right) \times 12$$

Where,

"Revised annual utilization_{year 1}" is as submitted for the year under paragraph (C)(2)(a)(ii) of this rule and adjusted under paragraph (C)(2)(c) of this rule; and "revised annual utilization_{year 2}" is as submitted for the year under paragraph (C)(2)(a)(ii) of this rule; and "annual utilization_{year 3}" is as calculated under paragraph (A)(1)(b) of this rule.

- (c) Except as provided in paragraphs (A)(2)(a) and (A)(2)(b) of this rule, average utilization shall be the sum of annual utilization for the calendar year and the revised annual utilization, submitted under paragraph (C)(2)(a)(ii) of this rule and adjusted by the USEPA under paragraph (C)(2)(c) of this rule, for the two immediately preceding calendar years divided by three.

(B) Determination of reduced utilization and calculation of allowances.

- (1) Determination of reduced utilization. For a year during which its opt-in permit is effective, an opt-in source has reduced utilization if the opt-in source's average utilization for the calendar year, as calculated under paragraph (A) of this rule, is less than its baseline.
- (2) Calculation of allowances deducted for reduced utilization. If the USEPA determines that an opt-in source has reduced utilization for a calendar year during which the opt-in source's opt-in permit is in effect, the USEPA ~~will~~shall deduct allowances, as calculated under paragraph (B)(2)(a) of this rule, from the compliance subaccount of the opt-in source's allowance tracking system account.

(a) Allowances deducted for reduced utilization, =

$$\text{Number Of Allowances Allocated For The Calendar Year} \times \left(1 - \left(\frac{\text{Average Utilization}_{\text{Calendar Year}}}{\text{Baseline}} \right) \right)$$

- (b) The allowances deducted shall have the same or an earlier compliance use date as those allocated under rules 3745-103-33 to 3745-103-39 of the Administrative Code for the calendar year for which the opt-in source has reduced utilization.

(C) Compliance.

(1) Opt-in utilization report. The designated representative for each opt-in source shall submit an opt-in utilization report for the calendar year, as part of its annual compliance certification report under rule 3745-103-44 of the Administrative Code, that shall include all of the following elements in a format prescribed by the USEPA:

- (a) The name, authorized account representative identification number, and telephone number of the designated representative of the opt-in source;
- (b) The account identification number in the allowance tracking system of the source that includes the opt-in source;
- (c) The opt-in source's annual utilization for the calendar year, as defined under paragraph (A)(1) of this rule, and the revised annual utilization, submitted under paragraph (C)(2)(a)(ii) of this rule and adjusted under paragraph (C)(2)(c) of this rule, for the two immediately preceding calendar years;
- (d) The opt-in source's average utilization for the calendar year, as defined under paragraph (A)(2) of this rule.
- (e) The difference between the opt-in source's average utilization and its baseline;
- (f) The number of allowances that shall be deducted, if any, using the formula in paragraph (B)(2)(a) of this rule and the supporting calculations.

(2) Confirmation report.

(a) If the annual compliance certification report for an opt-in source includes estimates of any reduction in heat input resulting from improved efficiency as defined under paragraph (A)(1)(a) of this rule, the designated representative shall submit, by July first of the year in which the annual compliance certification report was submitted, a confirmation report, concerning the calendar year covered by the annual compliance certification report. The USEPA may grant, for good cause shown, an extension of the time to file the confirmation report. The confirmation report shall include the following elements in a format prescribed by the USEPA:

- (i) Verified reduction in heat input. Any verified KWH savings or any

verified steam savings from demand side measures that improve the efficiency of electricity or steam consumption, any verified reduction in the heat rate at the opt-in source, or any verified improvement in the efficiency of steam production at the opt-in source achieved and the verified corresponding reduction in heat input for the calendar year that resulted.

- (ii) Revised annual utilization. The opt-in source's annual utilization for the calendar year as provided under paragraph (C)(1)(c) of this rule, recalculated using the verified reduction in heat input for the calendar year under paragraph (C)(2)(c)(v) of this rule.
 - (iii) Revised average utilization. The opt-in source's average utilization as provided under paragraph (C)(1)(d) of this rule, recalculated using the verified reduction in heat input for the calendar year under paragraph (C)(2)(a)(i) of this rule.
 - (iv) Recalculation of reduced utilization. The difference between the opt-in source's recalculated average utilization and its baseline.
 - (v) Allowance adjustment. The number of allowances that should be credited or deducted using the formulas in paragraphs (C)(2)(c)(iii) and (C)(2)(c)(iv) of this rule and the supporting calculations; and the number of adjusted allowances remaining using the formula in paragraph (C)(2)(a)(i) of this rule and the supporting calculations.
- (b) Documentation.
- (i) For all figures under paragraph (C)(2)(a)(i) of this rule, the opt-in source ~~must~~shall provide as part of the confirmation report, documentation (which may follow the USEPA conservation verification protocol) verifying the figures to the satisfaction of the USEPA.
 - (ii) Notwithstanding paragraph (C)(2)(a)(i) of this rule, where two or more opt-in sources and phase I units, or two or more opt-in sources and phase I units include in the confirmation report under paragraph (C)(2) of this rule or 40 CFR 72.91(b) the verified kilowatt hour savings or steam savings defined under paragraph (C)(2)(a)(i) of this rule for the calendar year, from the same specific measures:

- (a) The designated representatives of all such opt-in sources and phase I units shall submit with their confirmation reports a certification signed by all such designated representatives. The certification shall apportion the total kilowatt hour savings or steam savings as defined under paragraph (C)(2)(a)(i) of this rule for the calendar year among such opt-in sources.
- (b) Each designated representative shall include in the opt-in source's confirmation report only its share of the verified reduction in heat input as defined under paragraph (C)(2)(a)(i) of this rule for the calendar year under the certification under paragraph (C)(2)(b)(ii)(a) of this rule.
- (c) Determination of reduced utilization based on confirmation report.
- (i) If an opt-in source ~~must~~shall submit a confirmation report as specified under paragraph (C)(2) of this rule, the USEPA, upon such submittal, ~~will~~shall adjust its determination of reduced utilization for the calendar year for the opt-in source. Such adjustment ~~will~~shall include the recalculation of both annual utilization and average utilization, using verified reduction in heat input as defined under paragraph (C)(2)(a)(i) of this rule for the calendar year instead of the previously estimated values.
- (ii) Estimates confirmed. If the total, included in the confirmation report, of the amounts of verified reduction in the opt-in source's heat input equals the total estimated in the opt-in source's annual compliance certification report for the calendar year, then the designated representative shall include in the confirmation report a statement indicating that it is true.
- (iii) Underestimate. If the total, included in the confirmation report, of the amounts of verified reduction in the opt-in source's heat input is greater than the total estimated in the opt-in source's annual compliance certification report for the calendar year, then the designated representative shall include in the confirmation report the number of allowances to be credited to the compliance account of the source that includes the opt-in source calculated using the following formula:

Allowances credited for the calendar year in which the reduced utilization occurred =

$$\text{Number Of Allowances Allocated For The Calendar Year} \times \left[\frac{\text{Average Utilization}_{\text{verified}} - \text{Average Utilization}_{\text{Estimate}}}{\text{Baseline}} \right]$$

Where,

Average utilization_{estimate} = the average utilization of the opt-in source as defined under paragraph (A)(2) of this rule, calculated using the estimated reduction in the opt-in source's heat input under paragraph (A)(1) of this rule, and submitted in the annual compliance certification report for the calendar year. Average utilization_{verified} = The average utilization of the opt-in source as defined under paragraph (A)(2) of this rule, calculated using the verified reduction in the opt-in source's heat input as submitted under paragraph (C)(2)(a)(i) of this rule by the designated representative in the confirmation report.

- (iv) Overestimate. If the total of the amounts of verified reduction in the opt-in source's heat input included in the confirmation report is less than the total estimated in the opt-in source's annual compliance certification report for the calendar year, then the designated representative shall include in the confirmation report the number of allowances to be deducted from the compliance account of the source that includes the opt-in source, which equals the absolute value of the result of the formula for allowances credited under paragraph (C)(2)(c)(iii) of this rule.
- (v) Adjusted allowances remaining. Unless paragraph (C)(2)(c)(ii) of this rule applies, the designated representative shall include in the confirmation report the adjusted amount of allowances that would have been held in the opt-in source's compliance subaccount if the deductions made under 40 CFR 73.35(b) had been based on the verified, rather than the estimated, reduction in the opt-in source's heat input, calculated as follows:

$$\text{Adjusted Amount Of Allowances} = \text{Allowances Held After Deduction} - \text{Excess Emissions} + \text{Allowances Credited} - \text{Allowances Deducted}$$

Where:

"Allowances held after deduction" shall be the amount of allowances held in the opt-in source's compliance subaccount after deduction of allowances was made under 40 CFR 73.35(b) based on the annual compliance certification report. "Excess

emissions" shall be the amount, if any, of excess emissions determined under 40 CFR 73.35(d) for the calendar year based on the annual compliance certification report. "Allowances credited" shall be the amount of allowances calculated under paragraph (C)(2)(c)(iii) of this rule. "Allowances deducted" shall be the amount of allowances calculated under paragraph (C)(2)(c)(iv) of this rule.

- (a) If the result of the formula for "adjusted amount of allowances" is negative, the absolute value of the result constitutes excess emissions of sulfur dioxide. If the result is positive, there are no excess emissions of sulfur dioxide.
- (b) If the amount of excess emissions of sulfur dioxide calculated under "adjusted amount of allowances" differs from the amount of excess emissions of sulfur dioxide determined under 40 CFR 73.35 based on the annual compliance certification report, then the designated representative shall include in the confirmation report a demonstration of:
- (i) The number of allowances that ~~should~~shall be deducted to offset any increase in excess emissions or returned to the account for any decrease in excess emissions; ~~and,~~
- (ii) The amount of the excess emissions penalty, excluding interest, that ~~should~~shall be paid or returned to the account for the change in excess emissions.
- (c) The USEPA ~~will~~shall deduct immediately from the compliance account of the source that includes the opt-in source the amount of allowances that USEPA or Ohio EPA determines ~~is~~ necessary to offset any increase in excess emissions or ~~will~~shall return immediately to the opt-in source's compliance subaccount the amount of allowances ~~that is~~ determined necessary to account for any decrease in excess emissions.
- (d) The designated representative may identify the serial numbers of the allowances to be deducted or returned. In the absence of such identification, the deduction ~~will~~shall be on a first-in, first-out basis under 40 CFR 73.35(c)(2) and the identification of allowances returned ~~will~~shall be at the

USEPA's discretion.

- (e) If the designated representative of an opt-in source fails to submit on a timely basis a confirmation report, in accordance with paragraph (C)(2) of this rule, with regard to the estimate of reductions in heat input as defined under paragraph (C)(2)(a)(i) of this rule, then the USEPA ~~will~~shall reject such estimate and correct it to equal zero in the opt-in source's annual compliance certification report that includes that estimate. The USEPA ~~will~~shall deduct immediately, on a first-in, first-out basis under 40 CFR 73.35(c)(2), the amount of allowances that it determines is necessary to offset any increase in excess emissions of sulfur dioxide that results from the correction and ~~will~~shall require the owners and operators of the opt-in source to pay an excess emission penalty in accordance with 40 CFR Part 77.
- (f) If the opt-in source is governed by an approved thermal energy plan under rule 3745-103-48 of the Administrative Code and if the opt-in source must submit a confirmation report as specified under paragraph (C)(2) of this rule, the adjusted amount of allowances that should remain in the compliance account of the source that includes the opt-in source shall be calculated as follows:

Adjusted amount of allowances = Allowances Allocated or Acquired - Tons Emitted - The Larger Of [Allowances Transferred To All Replacement Units Or Allowances Deducted For Reduced Utilization]

~~Adjusted amount of allowances =~~

~~Allowances Allocated or Acquired - Tons Emitted - The Larger Of [Allowances Transferred To All Replacement Units Or Allowances Deducted For Reduced Utilization]~~

Where, "allowances allocated or acquired" shall be the number of allowances held in the compliance account of the source that includes the opt-in source at the allowance transfer deadline plus the number of allowances transferred for the previous calendar year to all replacement units under an approved thermal energy plan in accordance with paragraph (A)(6) of rule 3745-103-48 of the Administrative Code. "Tons emitted" shall be the total tons of sulfur

dioxide emitted by the opt-in source during the calendar year, as reported in accordance with rules 3745-103-52 and 3745-103-53 of the Administrative Code for combustion sources. "Allowances transferred to all replacement units" shall be the sum of allowances transferred to all replacement units under an approved thermal energy plan in accordance with rule 3745-103-48 of the Administrative Code and adjusted by the USEPA in accordance with paragraph (D)(2) of rule 3745-103-48 of the Administrative Code. "Allowances deducted for reduced utilization" shall be the total number of allowances deducted for reduced utilization as calculated in accordance with this rule including any adjustments required under paragraph (C)(2)(c)(v) of this rule.

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Certification

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