

## § 63.650

(f) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), or (d) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), of this section; or

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) The owner or operator shall maintain records to document that the connector monitoring or inspections have been conducted as required and to document repair of leaking connectors as applicable.

### § 63.650 Gasoline loading rack provisions.

(a) Except as provided in paragraphs (b) through (c) of this section, each owner or operator of a Group 1 gasoline loading rack classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a petroleum refinery shall comply with subpart R, §§ 63.421, 63.422(a) through (c) and (e), 63.425(a) through (c) and (i), 63.425(e) through (h), 63.427(a) and (b), and 63.428(b), (c), (g)(1), (h)(1) through (3), and (k).

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart R. The § 63.641 definition of “affected source” applies under this section.

(c) Gasoline loading racks regulated under this subpart are subject to the compliance dates specified in § 63.640(h).

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 74 FR 55685, Oct. 28, 2009]

### § 63.651 Marine tank vessel loading operation provisions.

(a) Except as provided in paragraphs (b) through (d) of this section, each owner or operator of a marine tank vessel loading operation located at a petroleum refinery shall comply with the requirements of §§ 63.560 through 63.568.

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(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart Y. The § 63.641 definition of “affected source” applies under this section.

(c) The notification reports under § 63.567(b) are not required.

(d) The compliance time of 4 years after promulgation of 40 CFR part 63, subpart Y does not apply. The compliance time is specified in § 63.640(h)(3).

[60 FR 43260, Aug. 18, 1995, as amended at 61 FR 29880, June 12, 1996; 74 FR 55685, Oct. 28, 2009]

### § 63.652 Emissions averaging provisions.

(a) This section applies to owners or operators of existing sources who seek to comply with the emission standard in § 63.642(g) by using emissions averaging according to § 63.642(l) rather than following the provisions of §§ 63.643 through 63.647, and §§ 63.650 and 63.651. Existing marine tank vessel loading operations located at the Valdez Marine Terminal source may not comply with the standard by using emissions averaging.

(b) The owner or operator shall develop and submit for approval an Implementation Plan containing all of the information required in § 63.653(d) for all points to be included in an emissions average. The Implementation Plan shall identify all emission points to be included in the emissions average. This must include any Group 1 emission points to which the reference control technology (defined in § 63.641) is not applied and all other emission points being controlled as part of the average.

(c) The following emission points can be used to generate emissions averaging credits if control was applied after November 15, 1990 and if sufficient information is available to determine the appropriate value of credits for the emission point:

(1) Group 2 emission points;

(2) Group 1 storage vessels, Group 1 wastewater streams, Group 1 gasoline loading racks, Group 1 marine tank vessels, and Group 1 miscellaneous process vents that are controlled by a technology that the Administrator or permitting authority agrees has a

higher nominal efficiency than the reference control technology. Information on the nominal efficiencies for such technologies must be submitted and approved as provided in paragraph (i) of this section; and

(3) Emission points from which emissions are reduced by pollution prevention measures. Percentages of reduction for pollution prevention measures shall be determined as specified in paragraph (j) of this section.

(i) For a Group 1 emission point, the pollution prevention measure must reduce emissions more than the reference control technology would have had the reference control technology been applied to the emission point instead of the pollution prevention measure except as provided in paragraph (c)(3)(ii) of this section.

(ii) If a pollution prevention measure is used in conjunction with other controls for a Group 1 emission point, the pollution prevention measure alone does not have to reduce emissions more than the reference control technology, but the combination of the pollution prevention measure and other controls must reduce emissions more than the reference control technology would have had it been applied instead.

(d) The following emission points cannot be used to generate emissions averaging credits:

(1) Emission points already controlled on or before November 15, 1990 unless the level of control is increased after November 15, 1990, in which case credit will be allowed only for the increase in control after November 15, 1990;

(2) Group 1 emission points that are controlled by a reference control technology unless the reference control technology has been approved for use in a different manner and a higher nominal efficiency has been assigned according to the procedures in paragraph (i) of this section. For example, it is not allowable to claim that an internal floating roof meeting only the specifications stated in the reference control technology definition in § 63.641 (i.e., that meets the specifications of § 63.119(b) of subpart G but does not have controlled fittings per § 63.119 (b)(5) and (b)(6) of subpart G) applied to

a storage vessel is achieving greater than 95 percent control;

(3) Emission points on shutdown process units. Process units that are shut down cannot be used to generate credits or debits;

(4) Wastewater that is not process wastewater or wastewater streams treated in biological treatment units. These two types of wastewater cannot be used to generate credits or debits. Group 1 wastewater streams cannot be left undercontrolled or uncontrolled to generate debits. For the purposes of this section, the terms "wastewater" and "wastewater stream" are used to mean process wastewater; and

(5) Emission points controlled to comply with a State or Federal rule other than this subpart, unless the level of control has been increased after November 15, 1990 above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the point is subsequently made subject to a State or Federal rule other than this subpart, the point can continue to generate emissions averaging credit for the purpose of complying with the previously approved average.

(e) For all points included in an emissions average, the owner or operator shall:

(1) Calculate and record monthly debits for all Group 1 emission points that are controlled to a level less stringent than the reference control technology for those emission points. Equations in paragraph (g) of this section shall be used to calculate debits.

(2) Calculate and record monthly credits for all Group 1 or Group 2 emission points that are overcontrolled to compensate for the debits. Equations in paragraph (h) of this section shall be used to calculate credits. Emission points and controls that meet the criteria of paragraph (c) of this section may be included in the credit calculation, whereas those described in paragraph (d) of this section shall not be included.

(3) Demonstrate that annual credits calculated according to paragraph (h)

of this section are greater than or equal to debits calculated for the same annual compliance period according to paragraph (g) of this section.

(i) The initial demonstration in the Implementation Plan that credit-generating emission points will be capable of generating sufficient credits to offset the debits from the debit-generating emission points must be made under representative operating conditions.

(ii) After the compliance date, actual operating data will be used for all debit and credit calculations.

(4) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (g) of this section are not more than 1.30 times the credits for the same period calculated according to paragraph (h) of this section. Compliance for the quarter shall be determined based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(5) Record and report quarterly and annual credits and debits in the Periodic Reports as specified in § 63.655(g)(8). Every fourth Periodic Report shall include a certification of compliance with the emissions averaging provisions as required by § 63.655(g)(8)(iii).

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section, respectively, and shall not include emissions from the following:

(1) More than 20 individual emission points. Where pollution prevention

measures (as specified in paragraph (j)(1) of this section) are used to control emission points to be included in an emissions average, no more than 25 emission points may be included in the average. For example, if two emission points to be included in an emissions average are controlled by pollution prevention measures, the average may include up to 22 emission points.

(2) Periods of startup, shutdown, and malfunction as described in the source's startup, shutdown, and malfunction plan required by § 63.6(e)(3) of subpart A of this part.

(3) For emission points for which continuous monitors are used, periods of excess emissions as defined in § 63.655(g)(6)(i). For these periods, the calculation of monthly credits and debits shall be adjusted as specified in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) No credits would be assigned to the credit-generating emission point.

(ii) Maximum debits would be assigned to the debit-generating emission point.

(iii) The owner or operator may use the procedures in paragraph (1) of this section to demonstrate to the Administrator that full or partial credits or debits should be assigned.

(g) Debits are generated by the difference between the actual emissions from a Group 1 emission point that is uncontrolled or is controlled to a level less stringent than the reference control technology, and the emissions allowed for Group 1 emission point. Debits shall be calculated as follows:

(1) The overall equation for calculating sourcewide debits is:

$$\begin{aligned} \text{Debits} = & \sum_{i=1}^n (\text{EPV}_{i\text{ACTUAL}} - (0.02)\text{EPV}_{i\text{ref}}) + \sum_{i=1}^n (\text{ES}_{i\text{ACTUAL}} - (0.05)\text{ES}_{i\text{ref}}) + \sum_{i=1}^n (\text{EGLR}_{i\text{ACTUAL}} - \text{EGLR}_{i\text{ref}}) \\ & + \sum_{i=1}^n (\text{EMV}_{i\text{ACTUAL}} - (0.03)\text{EMV}_{i\text{ref}}) \end{aligned}$$

where:

Debits and all terms of the equation are in units of megagrams per month, and  $\text{EPV}_{i\text{ACTUAL}}$ =Emissions from each Group 1 miscellaneous process vent i that is uncontrolled or is controlled to a level less strin-

gent than the reference control technology. This is calculated according to paragraph (g)(2) of this section.

(0.02)  $\text{EPV}_{i\text{ref}}$ =Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied

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to the uncontrolled emissions, calculated according to paragraph (g)(2) of this section.

ES<sub>iACTUAL</sub>=Emissions from each Group 1 storage vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(3) of this section.

(0.05) ES<sub>iu</sub>=Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (g)(3) of this section.

EGLR<sub>iACTUAL</sub>=Emissions from each Group 1 gasoline loading rack i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(4) of this section.

EGLR<sub>ic</sub>=Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. This is calculated according to paragraph (g)(4) of this section.

EMV<sub>iACTUAL</sub>=Emissions from each Group 1 marine tank vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(5) of this section.

(0.03) EMV<sub>iu</sub>=Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions calculated according to paragraph (g)(5) of this section.

n=The number of Group 1 emission points being included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

(2) Emissions from miscellaneous process vents shall be calculated as follows:

(i) For purposes of determining miscellaneous process vent stream flow rate, organic HAP concentrations, and temperature, the sampling site shall be after the final product recovery device, if any recovery devices are present; before any control device (for miscellaneous process vents, recovery devices shall not be considered control devices); and before discharge to the atmosphere. Method 1 or 1A of part 60, appendix A shall be used for selection of the sampling site.

(ii) The following equation shall be used for each miscellaneous process vent i to calculate EPV<sub>iu</sub>:

$$EPV_{iu} = (2.494 \times 10^{-9}) Qh \left( \sum_{j=1}^n C_j M_j \right)$$

where:

EPV<sub>iu</sub>=Uncontrolled process vent emission rate from miscellaneous process vent i, megagrams per month.

Q=Vent stream flow rate, dry standard cubic meters per minute, measured using Methods 2, 2A, 2C, or 2D of part 60 appendix A, as appropriate.

h=Monthly hours of operation during which positive flow is present in the vent, hours per month.

C<sub>j</sub>=Concentration, parts per million by volume, dry basis, of organic HAP j as measured by Method 18 of part 60 appendix A.

M<sub>j</sub>=Molecular weight of organic HAP j, gram per gram-mole.

n=Number of organic HAP's in the miscellaneous process vent stream.

(A) The values of Q, C<sub>j</sub>, and M<sub>j</sub> shall be determined during a performance test conducted under representative operating conditions. The values of Q, C<sub>j</sub>, and M<sub>j</sub> shall be established in the Notification of Compliance Status report and must be updated as provided in paragraph (g)(2)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of Q, C<sub>j</sub>, and M<sub>j</sub> are no longer representative, a new performance test shall be conducted to determine new representative values of Q, C<sub>j</sub>, and M<sub>j</sub>. These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate EPV<sub>iACTUAL</sub>:

(A) If the vent is not controlled by a control device or pollution prevention measure, EPV<sub>iACTUAL</sub> = EPV<sub>iu</sub>, where EPV<sub>iu</sub> is calculated according to the procedures in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the vent is controlled using a control device or a pollution prevention measure achieving less than 98-percent reduction,

$$EPV_{iACTUAL} = EPV_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1) The percent reduction shall be measured according to the procedures in § 63.116 of subpart G if a combustion control device is used. For a flare meeting the criteria in § 63.116(a) of subpart G, or a boiler or process heater meeting the criteria in § 63.645(d) of this subpart or § 63.116(b) of subpart G, the percentage of reduction shall be 98 percent. If a noncombustion control device is used, percentage of reduction shall be demonstrated by a performance test at the inlet and outlet of the device, or, if testing is not feasible, by a control design evaluation and documented engineering calculations.

(2) For determining debits from miscellaneous process vents, product recovery devices shall not be considered control devices and cannot be assigned a percentage of reduction in calculating  $EPV_{iACTUAL}$ . The sampling site for measurement of uncontrolled emissions is after the final product recovery device.

(3) Procedures for calculating the percentage of reduction of pollution prevention measures are specified in paragraph (j) of this section.

(3) Emissions from storage vessels shall be calculated as specified in § 63.150(g)(3) of subpart G.

(4) Emissions from gasoline loading racks shall be calculated as follows:

(i) The following equation shall be used for each gasoline loading rack i to calculate  $EGLR_{iu}$ :

$$EGLR_{iu} = \left( 1.20 \times 10^{-7} \right) \frac{SPMG}{T}$$

where:

$EGLR_{iu}$ =Uncontrolled transfer HAP emission rate from gasoline loading rack i, megagrams per month

S=Saturation factor, dimensionless (see table 33 of subpart G).

P=Weighted average rack partial pressure of organic HAP's transferred at the rack during the month, kilopascals.

M=Weighted average molecular weight of organic HAP's transferred at the gasoline loading rack during the month, gram per gram-mole.

G=Monthly volume of gasoline transferred from gasoline loading rack, liters per month.

T=Weighted rack bulk liquid loading temperature during the month, degrees kelvin (degrees Celsius °C + 273).

(ii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack partial pressure:

$$P = \frac{\sum_{j=1}^{j=n} (P_j)(G_j)}{G}$$

where:

$P_j$ =Maximum true vapor pressure of individual organic HAP transferred at the rack, kilopascals.

G=Monthly volume of organic HAP transferred, liters per month, and

$$G = \sum_{j=1}^{j=n} G_j$$

$G_j$ =Monthly volume of individual organic HAP transferred at the gasoline loading rack, liters per month.

n=Number of organic HAP's transferred at the gasoline loading rack.

(iii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack molecular weight:

$$M = \frac{\sum_{j=1}^{j=n} (M_j)(G_j)}{G}$$

where:

$M_j$ =Molecular weight of individual organic HAP transferred at the rack, gram per gram-mole.

G,  $G_j$ , and n are as defined in paragraph (g)(4)(ii) of this section.

(iv) The following equation shall be used for each gasoline loading rack i to calculate the monthly weighted rack bulk liquid loading temperature:

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$$T = \frac{\sum_{j=1}^n (T_j)(G_j)}{G}$$

T<sub>j</sub>=Average annual bulk temperature of individual organic HAP loaded at the gasoline loading rack, kelvin (degrees Celsius °C+273).

G, G<sub>j</sub>, and n are as defined in paragraph (g)(4)(ii) of this section.

(v) The following equation shall be used to calculate EGLR<sub>ic</sub>:

$$EGLR_{ic} = 1 \times 10^{-8} G$$

G is as defined in paragraph (g)(4)(ii) of this section.

(vi) The following procedures and equations shall be used to calculate EGLR<sub>iACTUAL</sub>:

(A) If the gasoline loading rack is not controlled, EGLR<sub>iACTUAL</sub>=EGLR<sub>iu</sub>, where EGLR<sub>iu</sub> is calculated using the equations specified in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack is controlled using a control device or a pollution prevention measure not achieving the requirement of less than 10 milligrams of TOC per liter of gasoline loaded,

$$EGLR_{iACTUAL} = EGLR_{iu} \left( \frac{1 - \text{Percent reduction}}{100\%} \right)$$

(1) The percent reduction for a control device shall be measured according to the procedures and test methods specified in §63.128(a) of subpart G. If testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in §63.128(h) of subpart G.

(2) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

(5) Emissions from marine tank vessel loading shall be calculated as follows:

(i) The following equation shall be used for each marine tank vessel i to calculate EMV<sub>iu</sub>:

$$EMV_{iu} = \sum_{i=1}^m (Q_i)(F_i)(P_i)$$

where:

EMV<sub>iu</sub>=Uncontrolled marine tank vessel HAP emission rate from marine tank vessel i, megagrams per month.

Q<sub>i</sub>=Quantity of commodity loaded (per vessel type), liters.

F<sub>i</sub>=Emission factor, megagrams per liter.

P<sub>i</sub>=Percent HAP.

m=Number of combinations of commodities and vessel types loaded.

Emission factors shall be based on test data or emission estimation procedures specified in §63.565(l) of subpart Y.

(ii) The following procedures and equations shall be used to calculate EMV<sub>iACTUAL</sub>:

(A) If the marine tank vessel is not controlled, EMV<sub>iACTUAL</sub>=EMV<sub>iu</sub>, where EMV<sub>iu</sub> is calculated using the equations specified in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel is controlled using a control device or a pollution prevention measure achieving less than 97-percent reduction,

$$EMV_{iACTUAL} = EMV_{iu} \left( \frac{1 - \text{Percent reduction}}{100\%} \right)$$

(1) The percent reduction for a control device shall be measured according

to the procedures and test methods specified in §63.565(d) of subpart Y. If

testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in § 63.128(h) of subpart G.

(2) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

(h) Credits are generated by the difference between emissions that are al-

lowed for each Group 1 and Group 2 emission point and the actual emissions from a Group 1 or Group 2 emission point that has been controlled after November 15, 1990 to a level more stringent than what is required by this subpart or any other State or Federal rule or statute. Credits shall be calculated as follows:

(1) The overall equation for calculating sourcewide credits is:

$$\begin{aligned} \text{Credits} = & D \sum_{i=1}^n ((0.02) EPV1_{iu} - EPV1_{iACTUAL}) + D \sum_{i=1}^m (EPV2_{iBASE} - EPV2_{iACTUAL}) + \\ & D \sum_{i=1}^n ((0.05) ES1_{iu} - ES1_{iACTUAL}) + D \sum_{i=1}^m (ES2_{iBASE} - ES2_{iACTUAL}) + \\ & D \sum_{i=1}^n (EGLR_{ic} - EGLR1_{iACTUAL}) + D \sum_{i=1}^m (EGLR2_{iBASE} - EGLR2_{iACTUAL}) + \\ & D \sum_{i=1}^n ((0.03) EMV1_{iu} - EMV1_{iACTUAL}) + D \sum_{i=1}^m (EMV2_{iBASE} - EMV2_{iACTUAL}) + \\ & D \sum_{i=1}^n (EWW1_{ic} - EWW1_{iACTUAL}) + D \sum_{i=1}^m (EWW2_{iBASE} - EWW2_{iACTUAL}) \end{aligned}$$

where:

Credits and all terms of the equation are in units of megagrams per month, the baseline date is November 15, 1990, and

D=Discount factor=0.9 for all credit-generating emission points except those controlled by a pollution prevention measure, which will not be discounted.

EPV1<sub>iACTUAL</sub>=Emissions for each Group 1 miscellaneous process vent i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(2) of this section.

(0.02) EPV1<sub>iu</sub>=Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied to the uncontrolled emissions. EPV1<sub>iu</sub> is calculated according to paragraph (h)(2) of this section.

EPV2<sub>iBASE</sub>=Emissions from each Group 2 miscellaneous process vent; at the baseline date, as calculated in paragraph (h)(2) of this section.

EPV2<sub>iACTUAL</sub>=Emissions from each Group 2 miscellaneous process vent that is controlled, calculated according to paragraph (h)(2) of this section.

ES1<sub>iACTUAL</sub>=Emissions from each Group 1 storage vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(3) of this section.

(0.05) ES1<sub>iu</sub>=Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions. ES1<sub>iu</sub> is calculated according to paragraph (h)(3) of this section.

ES2<sub>iACTUAL</sub>=Emissions from each Group 2 storage vessel i that is controlled, calculated according to paragraph (h)(3) of this section.

ES2<sub>iBASE</sub>=Emissions from each Group 2 storage vessel i at the baseline date, as calculated in paragraph (h)(3) of this section.

EGLR1<sub>iACTUAL</sub>=Emissions from each Group 1 gasoline loading rack i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

EGLR<sub>ic</sub>=Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. EGLR<sub>iu</sub> is calculated according to paragraph (h)(4) of this section.

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EGRL<sub>2iACTUAL</sub>=Emissions from each Group 2 gasoline loading rack i that is controlled, calculated according to paragraph (h)(4) of this section.

EGRL<sub>2iBASE</sub>=Emissions from each Group 2 gasoline loading rack i at the baseline date, as calculated in paragraph (h)(4) of this section.

EMV<sub>1iACTUAL</sub>=Emissions from each Group 1 marine tank vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

(0.03)EMV<sub>1im</sub>=Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions. EMV<sub>1im</sub> is calculated according to paragraph (h)(5) of this section.

EMV<sub>2iACTUAL</sub>=Emissions from each Group 2 marine tank vessel i that is controlled, calculated according to paragraph (h)(5) of this section.

EMV<sub>2iBASE</sub>=Emissions from each Group 2 marine tank vessel i at the baseline date, as calculated in paragraph (h)(5) of this section.

EWW<sub>1iACTUAL</sub>=Emissions from each Group 1 wastewater stream i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(6) of this section.

EWW<sub>1ic</sub>=Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (h)(6) of this section.

EWW<sub>2iACTUAL</sub>=Emissions from each Group 2 wastewater stream i that is controlled, calculated according to paragraph (h)(6) of this section.

EWW<sub>2iBASE</sub>=Emissions from each Group 2 wastewater stream i at the baseline date, calculated according to paragraph (h)(6) of this section.

n=Number of Group 1 emission points included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

m=Number of Group 2 emission points included in the emissions average. The value

of m is not necessarily the same for each kind of emission point.

(i) For an emission point controlled using a reference control technology, the percentage of reduction for calculating credits shall be no greater than the nominal efficiency associated with the reference control technology, unless a higher nominal efficiency is assigned as specified in paragraph (h)(1)(ii) of this section.

(ii) For an emission point controlled to a level more stringent than the reference control technology, the nominal efficiency for calculating credits shall be assigned as described in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedures in paragraph (i) of this section.

(iii) For an emission point controlled using a pollution prevention measure, the nominal efficiency for calculating credits shall be determined as described in paragraph (j) of this section.

(2) Emissions from process vents shall be determined as follows:

(i) Uncontrolled emissions from miscellaneous process vents, EPV<sub>1iu</sub>, shall be calculated according to the procedures and equation for EPV<sub>iu</sub> in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(ii) Actual emissions from miscellaneous process vents controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction, EPV<sub>1iACTUAL</sub>, shall be calculated according to the following equation:

$$EPV_{1iACTUAL} = EPV_{1iu} \left( 1 - \frac{\text{Nominal efficiency}\%}{100\%} \right)$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 process vents, EPV<sub>2iACTUAL</sub>:

(A) For a Group 2 process vent controlled by a control device, a recovery

device applied as a pollution prevention project, or a pollution prevention measure, if the control achieves a percentage of reduction less than or equal to a 98 percent reduction,

$$EPV2_{iACTUAL} = EPV2_{iu} \times \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1)  $EPV2_{iu}$  shall be calculated according to the equations and procedures for  $EPV_{iu}$  in paragraphs (g)(2)(i) and (g)(2)(ii) of this section except as provided in paragraph (h)(2)(iii)(A)(3) of this section.

(2) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section except as provided in paragraph (h)(2)(iii)(A)(4) of this section.

(3) If a recovery device was added as part of a pollution prevention project,  $EPV2_{iu}$  shall be calculated prior to that recovery device. The equation for  $EPV_{iu}$  in paragraph (g)(2)(ii) of this section

shall be used to calculate  $EPV2_{iu}$ ; however, the sampling site for measurement of vent stream flow rate and organic HAP concentration shall be at the inlet of the recovery device.

(4) If a recovery device was added as part of a pollution prevention project, the percentage of reduction shall be demonstrated by conducting a performance test at the inlet and outlet of that recovery device.

(B) For a Group 2 process vent controlled using a technology with an approved nominal efficiency greater than a 98 percent or a pollution prevention measure achieving greater than 98 percent reduction,

$$EPV2_{iACTUAL} = EPV2_{iu} \left( 1 - \frac{\text{Nominal efficiency \%}}{100\%} \right)$$

(iv) Emissions from Group 2 process vents at baseline,  $EPV2_{iBASE}$ , shall be calculated as follows:

(A) If the process vent was uncontrolled on November 15, 1990,  $EPV2_{iBASE} = EPV2_{iu}$ , and shall be calculated

according to the procedures and equation for  $EPV_{iu}$  in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the process vent was controlled on November 15, 1990,

$$EPV2_{iBASE} = EPV2_{iu} \left( 1 - \frac{\text{Percent reduction \%}}{100\%} \right)$$

where  $EPV2_{iu}$  is calculated according to the procedures and equation for  $EPV_{iu}$  in paragraphs (g)(2)(i) and (g)(2)(ii) of this section. The percentage of reduction shall be calculated according to the procedures specified in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section.

(C) If a recovery device was added to a process vent as part of a pollution prevention project initiated after November 15, 1990,  $EPV2_{iBASE} = EPV2_{iu}$ , where  $EPV2_{iu}$  is calculated according to paragraph (h)(2)(iii)(A)(3) of this section.

(3) Emissions from storage vessels shall be determined as specified in § 63.150(h)(3) of subpart G, except as follows:

(i) All references to § 63.119(b) in § 63.150(h)(3) of subpart G shall be replaced with: § 63.119 (b) or § 63.119(b) except for § 63.119(b)(5) and (b)(6).

(ii) All references to § 63.119(c) in § 63.150(h)(3) of subpart G shall be replaced with: § 63.119(c) or § 63.119(c) except for § 63.119(c)(2).

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(iii) All references to §63.119(d) in §63.150(h)(3) of subpart G shall be replaced with: §63.119(d) or §63.119(d) except for §63.119(d)(2).

(4) Emissions from gasoline loading racks shall be determined as follows:

(i) Uncontrolled emissions from Group 1 gasoline loading racks,  $EGLR1_{iu}$ , shall be calculated according to the procedures and equations for  $EGLR_{iu}$  as described in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(ii) Emissions from Group 1 gasoline loading racks if the reference control technology had been applied,  $EGLR_{ic}$ , shall be calculated according to the procedures and equations in paragraph (g)(4)(v) of this section.

(iii) Actual emissions from Group 1 gasoline loading racks controlled to less than 10 milligrams of TOC per liter of gasoline loaded;  $EGLR_{iACTUAL}$ , shall be calculated according to the following equation:

$$EGLR1_{iACTUAL} = EGLR1_{iu} \left( 1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(iv) The following procedures shall be used to calculate actual emissions from Group 2 gasoline loading racks,  $EGLR2_{iACTUAL}$ :

(A) For a Group 2 gasoline loading rack controlled by a control device or a

pollution prevention measure achieving emissions reduction but where emissions are greater than the 10 milligrams of TOC per liter of gasoline loaded requirement,

$$EGLR2_{iACTUAL} = EGLR2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1)  $EGLR2_{iu}$  shall be calculated according to the equations and procedures for  $EGLR_{iu}$  in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(2) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(4)(vi)(B)(1) and (g)(4)(vi)(B)(2) of this section.

(B) For a Group 2 gasoline loading rack controlled by using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than a 98-percent reduction,

$$EGLR2_{iACTUAL} = EGLR2_{iu} \left( 1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(v) Emissions from Group 2 gasoline loading racks at baseline,  $EGLR2_{iBASE}$ , shall be calculated as follows:

(A) If the gasoline loading rack was uncontrolled on November 15, 1990,  $EGLR2_{iBASE} = EGLR2_{iu}$ , and shall be calculated according to the procedures and equations for  $EGLR_{iu}$  in paragraphs

(g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack was controlled on November 15, 1990,

$$EGLR2_{iBASE} = EGLR2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

where  $EGLR2_{iu}$  is calculated according to the procedures and equations for  $EGLR_{iu}$  in paragraphs (g)(4)(i) through (g)(4)(iv) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(4)(vi)(B)(1) and (g)(4)(vi)(B)(2) of this section.

(5) Emissions from marine tank vessels shall be determined as follows:

(i) Uncontrolled emissions from Group 1 marine tank vessels,  $EMV1_{iu}$ ,

shall be calculated according to the procedures and equations for  $EMV_{iu}$  as described in paragraph (g)(5)(i) of this section.

(ii) Actual emissions from Group 1 marine tank vessels controlled using a technology or pollution prevention measure with an approved nominal efficiency greater than 97 percent,  $EMV_{iACTUAL}$ , shall be calculated according to the following equation:

$$EMV1_{iACTUAL} = EMV1_{iu} \left( 1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 marine tank vessels,  $EMV2_{iACTUAL}$ :

(A) For a Group 2 marine tank vessel controlled by a control device or a pollution prevention measure achieving a percentage of reduction less than or equal to 97 percent reduction,

$$EMV2_{iACTUAL} = EMV2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1)  $EMV2_{iu}$  shall be calculated according to the equations and procedures for  $EMV_{iu}$  in paragraph (g)(5)(i) of this section.

(2) The percentage of reduction shall be calculated according to the proce-

dures in paragraphs (g)(5)(ii)(B)(1) and (g)(5)(ii)(B)(2) of this section.

(B) For a Group 2 marine tank vessel controlled using a technology or a pollution prevention measure with an approved nominal efficiency greater than 97 percent,

$$EMV2_{iACTUAL} = EMV2_{iu} \left( 1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(iv) Emissions from Group 2 marine tank vessels at baseline,  $EMV2_{iBASE}$ , shall be calculated as follows:

(A) If the marine terminal was uncontrolled on November 15, 1990,  $EMV2_{iBASE}$  equals  $EMV2_{iu}$ , and shall be

calculated according to the procedures and equations for  $EMV_{iu}$  in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel was controlled on November 15, 1990,

$$EMV2_{iBASE} = EMV2_{iu} \left( 1 - \frac{\text{Percent reduction}}{100\%} \right)$$

where  $EMV2_{iu}$  is calculated according to the procedures and equations for  $EMV_{iu}$  in paragraph (g)(5)(i) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(5)(ii)(B)(1) and (g)(5)(ii)(B)(2) of this section.

(6) Emissions from wastewater shall be determined as follows:

(i) For purposes of paragraphs (h)(4)(ii) through (h)(4)(vi) of this section, the following terms will have the meaning given them in paragraphs (h)(6)(i)(A) through (h)(6)(i)(C) of this section.

(A) *Correctly suppressed* means that a wastewater stream is being managed according to the requirements of §§ 61.343 through 61.347 or

§ 61.342(c)(1)(iii) of 40 CFR part 61, subpart FF, as applicable, and the emissions from the waste management units subject to those requirements are routed to a control device that reduces HAP emissions by 95 percent or greater.

(B) *Treatment process* has the meaning given in § 61.341 of 40 CFR part 61, subpart FF except that it does not include biological treatment units.

(C) *Vapor control device* means the control device that receives emissions vented from a treatment process or treatment processes.

(ii) The following equation shall be used for each wastewater stream  $i$  to calculate  $EW_{ic}$ :

$$EW_{ic} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s (1 - Fr_m) Fe_m HAP_{im} + (0.05) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s (Fr_m HAP_{im})$$

where:

$EW_{ic}$  = Monthly wastewater stream emission rate if wastewater stream  $i$  were controlled by the reference control technology, megagrams per month.

$Q_i$  = Average flow rate for wastewater stream  $i$ , liters per minute.

$H_i$  = Number of hours during the month that wastewater stream  $i$  was generated, hours per month.

$Fr_m$  = Fraction removed of organic HAP  $m$  in wastewater, from table 7 of this subpart, dimensionless.

$Fe_m$  = Fraction emitted of organic HAP  $m$  in wastewater from table 7 of this subpart, dimensionless.

$s$  = Total number of organic HAP's in wastewater stream  $i$ .

$HAP_{im}$  = Average concentration of organic HAP  $m$  in wastewater stream  $i$ , parts per million by weight.

(A)  $HAP_{im}$  shall be determined for the point of generation or at a location downstream of the point of generation. Wastewater samples shall be collected using the sampling procedures specified in Method 25D of 40 CFR part 60, appendix A. Where feasible, samples shall be taken from an enclosed pipe prior to the wastewater being exposed

to the atmosphere. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of organic HAP's prior to sampling. The samples collected may be analyzed by either of the following procedures:

(1) A test method or results from a test method that measures organic HAP concentrations in the wastewater, and that has been validated pursuant to section 5.1 or 5.3 of Method 301 of appendix A of this part may be used; or

(2) Method 305 of appendix A of this part may be used to determine  $C_{im}$ , the average volatile organic HAP concentration of organic HAP  $m$  in wastewater stream  $i$ , and then  $HAP_{im}$  may be calculated using the following equation:  $HAP_{im} = C_{im} / Fm_m$ , where  $Fm_m$  for organic HAP  $m$  is obtained from table 7 of this subpart.

(B) Values for  $Q_i$ ,  $HAP_{im}$ , and  $C_{im}$  shall be determined during a performance test conducted under representative conditions. The average value obtained

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from three test runs shall be used. The values of  $Q_i$ ,  $HAP_{im}$ , and  $C_{im}$  shall be established in the Notification of Compliance Status report and must be updated as provided in paragraph (h)(6)(i)(C) of this section.

(C) If there is a change to the process or operation such that the previously measured values of  $Q_i$ ,  $HAP_{im}$ , and  $C_{im}$  are no longer representative, a new performance test shall be conducted to determine new representative values of  $Q_i$ ,  $HAP_{im}$ , and  $C_{im}$ . These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following equations shall be used to calculate  $EW_{iACTUAL}$  for each Group 1 wastewater stream  $i$  that is correctly suppressed and is treated to a level more stringent than the reference control technology.

(A) If the Group 1 wastewater stream  $i$  is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated HAP that is greater than that specified in table 7 of this subpart, and the vapor control device achieves a percentage of reduction equal to 95 percent, the following equation shall be used:

$$EW_{iACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [F_{c,m} HAP_{im} (1 - PR_{im})] + 0.05 (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} PR_{im}]$$

Where:

$EW_{iACTUAL}$  = Monthly wastewater stream emission rate if wastewater stream  $i$  is treated to a level more stringent than the reference control technology, megagrams per month.

$PR_{im}$  = The efficiency of the treatment process, or series of treatment processes, that treat wastewater stream  $i$  in reducing the emission potential of organic HAP  $m$  in wastewater, dimensionless, as calculated by:

$$PR_{im} = \frac{HAP_{im-in} - HAP_{im-out}}{HAP_{im-in}}$$

Where:

$HAP_{im-in}$  = Average concentration of organic HAP  $m$ , parts per million by weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the

wastewater entering the first treatment process in the series.

$HAP_{im-out}$  = Average concentration of organic HAP  $m$ , parts per million by weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the wastewater exiting the last treatment process in the series.

All other terms are as defined and determined in paragraph (h)(6)(ii) of this section.

(B) If the Group 1 wastewater stream  $i$  is not controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated HAP that is greater than that specified in table 7 of this subpart, but the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EW_{iACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [F_{c,m} HAP_{im} (1 - A_m)] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} A_m]$$

Where:

Nominal efficiency = Approved reduction efficiency of the vapor control device, dimensionless, as determined according to the procedures in § 63.652(i).

$A_m$  = The efficiency of the treatment process, or series of treatment processes, that treat wastewater stream  $i$  in reducing the emis-

sion potential of organic HAP  $m$  in wastewater, dimensionless.

All other terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

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(1) If a steam stripper meeting the specifications in the definition of reference control technology for wastewater is used,  $A_m$  shall be equal to the value of  $Fr_m$  given in table 7 of this subpart.

(2) If an alternative control device is used, the percentage of reduction must be determined using the equation and methods specified in paragraph (h)(6)(iii)(A) of this section for determining  $PR_{im}$ . If the value of  $PR_{im}$  is greater than or equal to the value of  $Fr_m$  given in table 7 of this subpart, then  $A_m$  equals  $Fr_m$  unless a higher nominal efficiency has been approved. If a higher nominal efficiency has been approved for the treatment process, the owner or operator shall determine

$EWW1_{iACTUAL}$  according to paragraph (h)(6)(iii)(B) of this section rather than paragraph (h)(6)(iii)(A) of this section. If  $PR_{im}$  is less than the value of  $FR_m$  given in table 7 of this subpart, emissions averaging shall not be used for this emission point.

(C) If the Group 1 wastewater stream  $i$  is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually speciated hazardous air pollutant that is greater than that specified in table 7 of this subpart, and the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EWW1_{iACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [F_{e_m} HAP_{im} (1 - PR_{im})] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} PR_{im}]$$

where all terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(iv) The following equation shall be used to calculate  $EWW2_{iBASE}$  for each

Group 2 wastewater stream  $i$  that on November 15, 1990 was not correctly suppressed or was correctly suppressed but not treated:

$$EWW2_{iBASE} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s F_{e_m} HAP_{im}$$

Where:

$EWW2_{iBASE}$  = Monthly wastewater stream emission rate if wastewater stream  $i$  is not correctly suppressed, megagrams per month.

$Q_i$ ,  $H_i$ ,  $s$ ,  $F_{e_m}$ , and  $HAP_{im}$  are as defined and determined according to paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(v) The following equation shall be used to calculate  $EWW2_{iBASE}$  for each

Group 2 wastewater stream  $i$  on November 15, 1990 was correctly suppressed.  $EWW2_{iBASE}$  shall be calculated as if the control methods being used on November 15, 1990 are in place and any control methods applied after November 15, 1990 are ignored. However, values for the parameters in the equation shall be representative of present production levels and stream properties.

$$EWW2_{iBASE} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [F_{e_m} HAP_{im} (1 - PR_{im})] + \left(1 - \frac{R_i}{100\%}\right) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} PR_{im}]$$

where  $R_i$  is calculated according to paragraph (h)(6)(vii) of this section and all other terms are as defined and determined

according to paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

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(vi) For Group 2 wastewater streams that are correctly suppressed,  $EW\text{W}2_{iACTUAL}$  shall be calculated according to the equation for  $EW\text{W}2_{iBASE}$  in paragraph (h)(6)(v) of this section.  $EW\text{W}2_{iACTUAL}$  shall be calculated with all control methods in place accounted for.

(vii) The reduction efficiency,  $R_i$ , of the vapor control device shall be demonstrated according to the following procedures:

(A) Sampling sites shall be selected using Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate.

(B) The mass flow rate of organic compounds entering and exiting the control device shall be determined as follows:

(1) The time period for the test shall not be less than 3 hours during which at least three runs are conducted.

(2) A run shall consist of a 1-hour period during the test. For each run:

(i) The volume exhausted shall be determined using Methods 2, 2A, 2C, or 2D of 40 CFR part 60 appendix A, as appropriate;

(ii) The organic concentration in the vent stream entering and exiting the control device shall be determined using Method 18 of 40 CFR part 60, appendix A. Alternatively, any other test method validated according to the procedures in Method 301 of appendix A of this part may be used.

(3) The mass flow rate of organic compounds entering and exiting the control device during each run shall be calculated as follows:

$$E_a = \frac{0.0416}{10^6 \times m} \left[ \sum_{p=1}^m V_{ap} \left( \sum_{i=1}^n C_{aip} MW_i \right) \right]$$

$$E_b = \frac{0.0416}{10^6 \times m} \left[ \sum_{p=1}^m V_{bp} \left( \sum_{i=1}^n C_{bip} MW_i \right) \right]$$

Where:

$E_a$  = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

$E_b$  = Mass flow rate of organic compounds entering the control device, kilograms per hour.

$V_{ap}$  = Average volumetric flow rate of vent stream exiting the control device during

run p at standards conditions, cubic meters per hour.

$V_{bp}$  = Average volumetric flow rate of vent stream entering the control device during run p at standards conditions, cubic meters per hour.

p = Run.

m = Number of runs.

$C_{aip}$  = Concentration of organic compound i measured in the vent stream exiting the control device during run p as determined by Method 18 of 40 CFR part 60 appendix A, parts per million by volume on a dry basis.

$C_{bip}$  = Concentration of organic compound i measured in the vent stream entering the control device during run p as determined by Method 18 of 40 CFR part 60, appendix A, parts per million by volume on a dry basis.

$MW_i$  = Molecular weight of organic compound i in the vent stream, kilograms per kilogram-mole.

n = Number of organic compounds in the vent stream.

0.0416 = Conversion factor for molar volume, kilograms-mole per cubic meter at 293 kelvin and 760 millimeters mercury absolute.

(C) The organic reduction efficiency for the control device shall be calculated as follows:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

Where:

R = Total organic reduction efficiency for the control device, percentage.

$E_b$  = Mass flow rate of organic compounds entering the control device, kilograms per hour.

$E_a$  = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

(i) The following procedures shall be followed to establish nominal efficiencies. The procedures in paragraphs (i)(1) through (i)(6) of this section shall be followed for control technologies that are different in use or design from the reference control technologies and achieve greater percentages of reduction than the percentages of efficiency assigned to the reference control technologies in § 63.641.

(1) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology, and the different control technology will be used in more than three applications at

a single plant site, the owner or operator shall submit the information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section to the Administrator in writing:

(i) Emission stream characteristics of each emission point to which the control technology is or will be applied including the kind of emission point, flow, organic HAP concentration, and all other stream characteristics necessary to design the control technology or determine its performance;

(ii) Description of the control technology including design specifications;

(iii) Documentation demonstrating to the Administrator's satisfaction the control efficiency of the control technology. This may include performance test data collected using an appropriate EPA method or any other method validated according to Method 301 of appendix A of this part. If it is infeasible to obtain test data, documentation may include a design evaluation and calculations. The engineering basis of the calculation procedures and all inputs and assumptions made in the calculations shall be documented; and

(iv) A description of the parameter or parameters to be monitored to ensure that the control technology will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) The Administrator shall determine within 120 calendar days whether an application presents sufficient information to determine nominal efficiency. The Administrator reserves the right to request specific data in addition to the items listed in paragraph (i)(1) of this section.

(3) The Administrator shall determine within 120 calendar days of the submittal of sufficient data whether a control technology shall have a nominal efficiency and the level of that nominal efficiency. If, in the Administrator's judgment, the control technology achieves a level of emission reduction greater than the reference control technology for a particular kind of emission point, the Administrator will publish a FEDERAL REGISTER notice establishing a nominal efficiency for the control technology.

(4) The Administrator may grant conditional permission to take emission credits for use of the control technology on requirements that may be necessary to ensure operation and maintenance to achieve the specified nominal efficiency.

(5) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology and the different control technology will be used in no more than three applications at a single plant site, the information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this section can be submitted to the permitting authority for the source for approval instead of the Administrator.

(i) In these instances, use and conditions for use of the control technology can be approved by the permitting authority. The permitting authority shall follow the procedures specified in paragraphs (i)(2) through (i)(4) of this section except that, in these instances, a FEDERAL REGISTER notice is not required to establish the nominal efficiency for the different technology.

(ii) If, in reviewing the submittal, the permitting authority believes the control technology has broad applicability for use by other sources, the permitting authority shall submit the information provided in the application to the Director of the EPA Office of Air Quality Planning and Standards. The Administrator shall review the technology for broad applicability and may publish a FEDERAL REGISTER notice; however, this review shall not affect the permitting authority's approval of the nominal efficiency of the control technology for the specific application.

(6) If, in reviewing an application for a control technology for an emission point, the Administrator or permitting authority determines the control technology is not different in use or design from the reference control technology, the Administrator or permitting authority shall deny the application.

(j) The following procedures shall be used for calculating the efficiency (percentage of reduction) of pollution prevention measures:

(1) A pollution prevention measure is any practice that meets the criteria of

paragraphs (j)(1)(i) and (j)(1)(ii) of this section.

(i) A pollution prevention measure is any practice that results in a lesser quantity of organic HAP emissions per unit of product released to the atmosphere prior to out-of-process recycling, treatment, or control of emissions while the same product is produced.

(ii) Pollution prevention measures may include: Substitution of feedstocks that reduce HAP emissions, alterations to the production process to reduce the volume of materials released to the environment, equipment modifications; housekeeping measures, and in-process recycling that returns waste materials directly to production as raw materials. Production cutbacks do not qualify as pollution prevention.

(2) The emission reduction efficiency of pollution prevention measures implemented after November 15, 1990 can

be used in calculating the actual emissions from an emission point in the debit and credit equations in paragraphs (g) and (h) of this section.

(i) For pollution prevention measures, the percentage of reduction used in the equations in paragraphs (g)(2) and (g)(3) of this section and paragraphs (h)(2) through (h)(4) of this section is the difference in percentage between the monthly organic HAP emissions for each emission point after the pollution prevention measure for the most recent month versus monthly emissions from the same emission point before the pollution prevention measure, adjusted by the volume of product produced during the two monthly periods.

(ii) The following equation shall be used to calculate the percentage of reduction of a pollution prevention measure for each emission point.

$$\text{Percent reduction} = \frac{E_B \left( \frac{E_{pp} \times P_B}{P_{pp}} \right)}{E_B} \times 100\%$$

Where:

Percent reduction=Efficiency of pollution prevention measure (percentage of organic HAP reduction).

$E_B$ =Monthly emissions before the pollution prevention measure, megagrams per month, determined as specified in paragraphs (j)(2)(ii)(A), (j)(2)(ii)(B), and (j)(2)(ii)(C) of this section.

$E_{pp}$ =Monthly emissions after the pollution prevention measure, megagrams per month, as determined for the most recent month, determined as specified in paragraphs (j)(2)(ii)(D) or (j)(2)(ii)(E) of this section.

$P_B$ =Monthly production before the pollution prevention measure, megagrams per

month, during the same period over which  $E_B$  is calculated.

$P_{pp}$ =Monthly production after the pollution prevention measure, megagrams per month, as determined for the most recent month.

(A) The monthly emissions before the pollution prevention measure,  $E_B$ , shall be determined in a manner consistent with the equations and procedures in paragraphs (g)(2), (g)(3), (g)(4), and (g)(5) of this section for miscellaneous process vents, storage vessels, gasoline loading racks, and marine tank vessels.

(B) For wastewater,  $E_B$  shall be calculated as follows:

$$E_B = \sum_{i=1}^n \left[ \left( 6.0 \times 10^{-8} \right) Q_{Bi} H_{Bi} \sum_{m=1}^s Fe_m HAP_{Bim} \right]$$

where:

n=Number of wastewater streams.

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Q<sub>Bi</sub>=Average flow rate for wastewater stream i before the pollution prevention measure, liters per minute.

H<sub>Bi</sub>=Number of hours per month that wastewater stream i was discharged before the pollution prevention measure, hours per month.

s=Total number of organic HAP's in wastewater stream i.

Fe<sub>m</sub>=Fraction emitted of organic HAP m in wastewater from table 7 of this subpart, dimensionless.

HAP<sub>Bim</sub>=Average concentration of organic HAP m in wastewater stream i, defined and determined according to paragraph (h)(6)(ii)(A)(2) of this section, before the pollution prevention measure, parts per million by weight, as measured before the implementation of the pollution measure.

(C) If the pollution prevention measure was implemented prior to July 14, 1994, records may be used to determine E<sub>B</sub>.

(D) The monthly emissions after the pollution prevention measure, E<sub>pp</sub>, may be determined during a performance test or by a design evaluation and documented engineering calculations. Once an emissions-to-production ratio has been established, the ratio can be used to estimate monthly emissions from monthly production records.

(E) For wastewater, E<sub>pp</sub> shall be calculated using the following equation:

$$E_{pp} = \sum_{i=1}^n \left[ \left( 6.0 * 10^{-8} \right) Q_{ppi} H_{ppi} \sum_{m=1}^s Fe_m HAP_{ppim} \right]$$

where n, Q, H, s, Fe<sub>m</sub>, and HAP are defined and determined as described in paragraph (j)(2)(ii)(B) of this section except that Q<sub>ppi</sub>, H<sub>ppi</sub>, and HAP<sub>ppim</sub> shall be determined after the pollution prevention measure has been implemented.

(iii) All equations, calculations, test procedures, test results, and other information used to determine the percentage of reduction achieved by a pollution prevention measure for each emission point shall be fully documented.

(iv) The same pollution prevention measure may reduce emissions from multiple emission points. In such cases, the percentage of reduction in emissions for each emission point must be calculated.

(v) For the purposes of the equations in paragraphs (h)(2) through (h)(6) of this section used to calculate credits for emission points controlled more stringently than the reference control technology, the nominal efficiency of a pollution prevention measure is equivalent to the percentage of reduction of the pollution prevention measure. When a pollution prevention measure is used, the owner or operator of a source is not required to apply to the Administrator for a nominal efficiency and is not subject to paragraph (i) of this section.

(k) The owner or operator shall demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the State or local permitting authority, greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.643 through 63.647, and §§ 63.650 and 63.651.

(1) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the State or local permitting authority.

(i) The State or local permitting authority may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination.

(ii) The demonstration and approval of hazard or risk equivalency may be made according to any guidance that the EPA makes available for use.

(2) Owners and operators shall provide documentation demonstrating the hazard or risk equivalency of their proposed emissions average in their Implementation Plan.

(3) An emissions averaging plan that does not demonstrate an equivalent or lower hazard or risk to the satisfaction of the State or local permitting authority shall not be approved. The

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State or local permitting authority may require such adjustments to the emissions averaging plan as are necessary in order to ensure that the average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§ 63.643 through 63.647, and §§ 63.650 and 63.651.

(4) A hazard or risk equivalency demonstration shall:

(i) Be a quantitative, bona fide chemical hazard or risk assessment;

(ii) Account for differences in chemical hazard or risk to human health or the environment; and

(iii) Meet any requirements set by the State or local permitting authority for such demonstrations.

(1) For periods of excess emissions, an owner or operator may request that the provisions of paragraphs (1)(1) through (1)(4) of this section be followed instead of the procedures in paragraphs (f)(3)(i) and (f)(3)(ii) of this section.

(1) The owner or operator shall notify the Administrator of excess emissions in the Periodic Reports as required in § 63.655(g)(6).

(2) The owner or operator shall demonstrate that other types of monitoring data or engineering calculations are appropriate to establish that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits. This demonstration shall be made to the Administrator's satisfaction, and the Administrator may establish procedures for demonstrating compliance that are acceptable.

(3) The owner or operator shall provide documentation of the period of excess emissions and the other type of monitoring data or engineering calculations to be used to demonstrate that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits.

(4) The Administrator may assign full or partial credit and debits upon review of the information provided.

[60 FR 43260, Aug. 18, 1995; 60 FR 49976, Sept. 27, 1995; 61 FR 7051, Feb. 23, 1996, as amended at 61 FR 29881, June 12, 1996; 61 FR 33799, June 28, 1996; 74 FR 55686, Oct. 28, 2009]

**§ 63.653 Monitoring, recordkeeping, and implementation plan for emissions averaging.**

(a) For each emission point included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for Group 1 emission points complying with §§ 63.643 through 63.647, and §§ 63.650 and 63.651. The specific requirements for miscellaneous process vents, storage vessels, wastewater, gasoline loading racks, and marine tank vessels are identified in paragraphs (a)(1) through (a)(7) of this section.

(1) The source shall implement the following testing, monitoring, recordkeeping, and reporting procedures for each miscellaneous process vent equipped with a flare, incinerator, boiler, or process heater:

(i) Conduct initial performance tests to determine the percentage of reduction as specified in § 63.645 of this subpart and § 63.116 of subpart G; and

(ii) Monitor the operating parameters specified in § 63.644, as appropriate for the specific control device.

(2) The source shall implement the following procedures for each miscellaneous process vent, equipped with a carbon adsorber, absorber, or condenser but not equipped with a control device:

(i) Determine the flow rate and organic HAP concentration using the methods specified in § 63.115 (a)(1) and (a)(2), § 63.115 (b)(1) and (b)(2), and § 63.115(c)(3) of subpart G; and

(ii) Monitor the operating parameters specified in § 63.114 of subpart G, as appropriate for the specific recovery device.

(3) The source shall implement the following procedures for each storage vessel controlled with an internal floating roof, external roof, or a closed vent system with a control device, as appropriate to the control technique:

(i) Perform the monitoring or inspection procedures in § 63.646 of this subpart and § 63.120 of subpart G; and

(ii) For closed vent systems with control devices, conduct an initial design evaluation as specified in § 63.646 of this subpart and § 63.120(d) of subpart G.

(4) For each gasoline loading rack that is controlled, perform the testing and monitoring procedures specified in