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§ 63.1428 Process vent requirements for group determination of PMPUs using a nonepoxide organic HAP to make or modify the product.

(a) Process vents from batch unit operations. The owner or operator shall determine, for each PMPU located at an
affected source, if the combination of all process vents from batch unit operations that are associated with the use of nonepoxide organic HAP to make or modify the product is a Group I combination of batch process vents, as defined in §63.1423. The annual uncontrolled nonepoxide organic HAP emissions, determined in accordance with paragraph (b) of this section, and annual average flow rate, determined in accordance with paragraph (c) of this section, shall be determined for all process vents from batch unit operations associated with the use of nonepoxide organic HAP to make or modify the product, with the exception of those vents specified in paragraph (i) of this section, at the location after all applicable control techniques have been applied to reduce epoxide emissions in accordance with paragraph (a)(1) or (2) of this section.

(1) If the owner or operator is using a combustion, recovery, or recapture device to reduce epoxide emissions, this location shall be at the exit of the combustion, recovery, or recapture device.

(2) If the owner or operator is using ECO to reduce epoxide emissions, this location shall be at the exit from the batch unit operation. For the purpose of these determinations, the primary condenser operating as a reflux condenser on a reactor or distillation column shall be considered part of the unit operation.

(b) Determination of annual nonepoxide organic HAP emissions. The owner or operator shall determine, for each PMPU, the total annual nonepoxide organic HAP emissions from the combination of all process vents from batch unit operations that are associated with the use of nonepoxide organic HAP to make or modify the product shall be determined using the batch process vent procedures in the NESHAP for Group I Polymers and Resins (40 CFR part 63, subpart U), §63.488(b).

(2) The owner or operator shall sum the annual nonepoxide organic HAP emissions from all individual process vents from batch unit operations in a PMPU, determined in accordance with paragraph (b)(1) of this section, to obtain the total nonepoxide organic HAP emissions from the combination of process vents associated with the use of a nonepoxide organic HAP to make or modify the product, for the PMPU.

(c) Minimum emission level exemption. If the annual emissions of TOC or nonepoxide organic HAP from the combination of process vents from batch unit operations that are associated with the use of nonepoxide organic HAP to make or modify a polyether polyol for a PMPU are less than 11,800 kg/yr, the owner or operator of that PMPU is not required to comply with the provisions in paragraphs (d) and (e) of this section.

(d) Determination of average flow rate and annual average flow rate. The owner or operator shall determine, for each PMPU, the total annual average flow rate for the combination of all process vents from batch unit operations that are associated with the use of a nonepoxide organic HAP to make or modify a product in accordance with paragraphs (d)(1) and (2) of this section.

(1) The annual average flow rate for each process vent from batch unit operations that is associated with the use of nonepoxide organic HAP to make or modify the product shall be determined using the batch process vent procedures in the NESHAP for Group I Polymers and Resins (40 CFR part 63, subpart U), §63.488(e).

(2) The owner or operator shall sum the annual average flow rates from the individual process vents from batch unit operations in a PMPU, determined in accordance with paragraph (d)(1) of this section, to obtain the total annual average flow rate for the combination of process vents associated with the use of a nonepoxide organic HAP to make or modify the product, for the PMPU.

(e) Determination of cutoff flow rate. For each PMPU at an affected source that uses nonepoxide organic HAP to make or modify the product, the owner or operator shall calculate the cutoff flow rate using Equation 14.
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CFR = (0.00437)(AE) – 51.6 \quad [\text{Equation 14}]

Where:

CFR = Cutoff flow rate, standard cubic meters per minute (scmm).

AE = Annual TOC or nonepoxide organic HAP emissions from the combination of process vents from batch unit operations that are associated with the use of nonepoxide organic HAP to make or modify the product, as determined in paragraph (b)(2) of this section, kg/yr.

(f) [Reserved]

(g) Process changes affecting Group 2 combinations of process vents in a PMPU that are from batch unit operations. Whenever process changes, as described in paragraph (g)(1) of this section, are made that affect a Group 2 combination of batch process vents and that could reasonably be expected to change the group status from Group 2 to Group 1, the owner or operator shall comply with paragraphs (g)(2) and (3) of this section.

(1) Examples of process changes include, but are not limited to, increases in production capacity or production rate, changes in feedstock type or catalyst type; or whenever there is replacement, removal, or modification of recovery equipment considered part of the batch unit operation. Any change that results in an increase in the annual nonepoxide organic HAP emissions from the estimate used in the previous group determination constitutes a process change for the purpose of these provisions. Process changes do not include: process upsets; unintentional, temporary process changes; and changes that are within the margin of variation on which the original group determination was based.

(2) For each process affected by a process change, the owner or operator shall redetermine the group status by repeating the procedures specified in paragraphs (b) through (e) of this section, as applicable, and determining if the combination of process vents is a Group 1 combination of batch process vents, as defined in §63.1423. Alternatively, engineering assessment, as described in §63.488(b)(6)(i), may be used to determine the effects of the process change.

(3) Based on the results of paragraph (g)(2) of this section, the owner or operator shall comply with either paragraph (g)(3)(i) or (ii) of this section.

(i) If the redetermination described in paragraph (g)(2) of this section indicates that the group status of the combination of process vents from batch unit operations in a PMPU that are associated with the use of nonepoxide organic HAP to make or modify the product changes from Group 2 to Group 1 as a result of the process change, the owner or operator shall submit a report as specified in §63.1438(e)(6)(i)(D)(1) and shall comply with Group 1 combination of batch process vents provisions in this subpart, as specified in §63.1425(c)(1).

(ii) If the redetermination described in paragraph (g)(2) of this section indicates no change in group status, the owner or operator is not required to submit a report.

(h) Process vents from continuous unit operations. (1) The owner or operator shall determine the total resource effectiveness (TRE) index value for each process vent from a continuous unit operation that is associated with the use of nonepoxide organic HAP to make or modify the product. To determine the TRE index value, the owner or operator shall conduct a TRE determination and calculate the TRE index value according to the HON process vent group determination procedures in §63.115(d)(1) or (2) and the TRE equation in §63.115(d)(3). The TRE index value shall be determined at the location after all applicable control techniques have been applied to reduce epoxide emissions in accordance with paragraph (h)(1)(i), (ii), or (iii) of this section.

(i) If the owner or operator uses one or more nonepoxide recovery devices after all control techniques to reduce epoxide emissions, this location shall be after the last nonepoxide recovery device.

(ii) If the owner or operator does not use a nonepoxide recovery device after a combustion, recovery, or recapture device to reduce epoxide emissions,
this location shall be at the exit of the
combustion, recovery, or recapture de-
vice.

(iii) If the owner or operator does not
use a nonepoxide recovery device after
extended cookout to reduce epoxide
emissions, this location shall be at the
exit from the continuous unit oper-
ation. For the purpose of these deter-
minations, the primary condenser oper-
ating as a reflux condenser on a reactor
or distillation column shall be consid-
ered part of the unit operation.

(2) The owner or operator of a Group
2 continuous process vent shall recal-
culate the TRE index value as nec-
essary to determine whether the pro-
cess vent is Group 1 or Group 2, when-
ever process changes are made that
could reasonably be expected to change
the process vent to Group 1. Examples
of process changes include, but are not
limited to, increases in production ca-
pacity or production rate, changes in
feedstock type or catalyst type, or
whenever there is replacement, re-
moval, or addition of recovery equip-
ment. For purposes of this paragraph,
process changes do not include: process
upsets; unintentional, temporary proc-
ess changes; and changes that are with-
in the range on which the original TRE
calculation was based.

(i) The TRE index value shall be re-
calculated based on measurements of
process vent stream flow rate, TOC,
and nonepoxide organic HAP con-
centrations, and heating values as
specified in the HON process vent
group determination procedures in
§63.115(a), (b), (c), and (d), as applicable,
or on best engineering assessment of
the effects of the change. Engineer-
ing assessments shall meet the speci-
fications in §63.115(d)(1).

(ii) Where the recalculated TRE
index value is less than or equal to 1.0,
or, where the TRE index value before
the process change was greater than 4.0
and the recalculated TRE index value
is less than or equal to 4.0 but greater
than 1.0, the owner or operator shall
submit a report as specified in the
process vent reporting and record-
keeping provisions in §63.1430(j) or (k),
and shall comply with the appropriate
provisions in the process vent control
requirements in §63.1425 by the dates
specified in §63.1422 (the section de-
scribing compliance dates for sources
subject to this subpart).

(iii) Where the recalculated TRE
index value is greater than 4.0, the
owner or operator is not required to
submit a report.

(1) Combination of process vents from
batch unit operations and process vents
from continuous unit operations. If an
owner or operator combines a process
vent from a batch unit operation that is
associated with the use of a non-
epoxide organic HAP to make or mod-
ify the product with a process vent
from a continuous unit operation that is
associated with the use of a non-
epoxide prior to the epoxide control
technique, or prior to a nonepoxide re-
covery device that is after the epoxide
control technique, then the provisions
in paragraphs (1)(1) and (2) of this sec-
tion shall apply.

(1) The process vent from the batch
unit operation is not required to be in-
cluded in the group determination re-
quired by paragraphs (a) through (e) of
this section.

(2) The TRE index value of the com-
bined stream shall be determined in ac-
cordance with paragraph (h) of this sec-
tion, and the TRE index value shall be
calculated during a period when non-
epoxide organic HAP emissions are
being generated by the batch unit oper-
ation.

[64 FR 29439, June 1, 1999, as amended at 65
FR 26501, May 8, 2000]

§63.1429 Process vent monitoring re-
quirements.

(a) Monitoring equipment requirements.
The owner or operator of a process vent
that uses a combustion, recovery, or
recapture device to comply with the
process vent control requirements in
§63.1425(b)(1), (b)(2), (c)(1), (c)(3), or (d)
shall install monitoring equipment
specified in paragraph (a)(1), (2), (3), (4),
(5), (6), or (7) of this section, depending
on the type of device used. Also, the
owner or operator that uses a recovery
or recapture device to comply with
§63.1425(c)(4) shall install monitoring
equipment as specified in paragraph
(a)(4), (5), (6), or (7) of this section. All
monitoring equipment shall be in-
stalled, calibrated, maintained, and op-
erated according to manufacturers'