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Air

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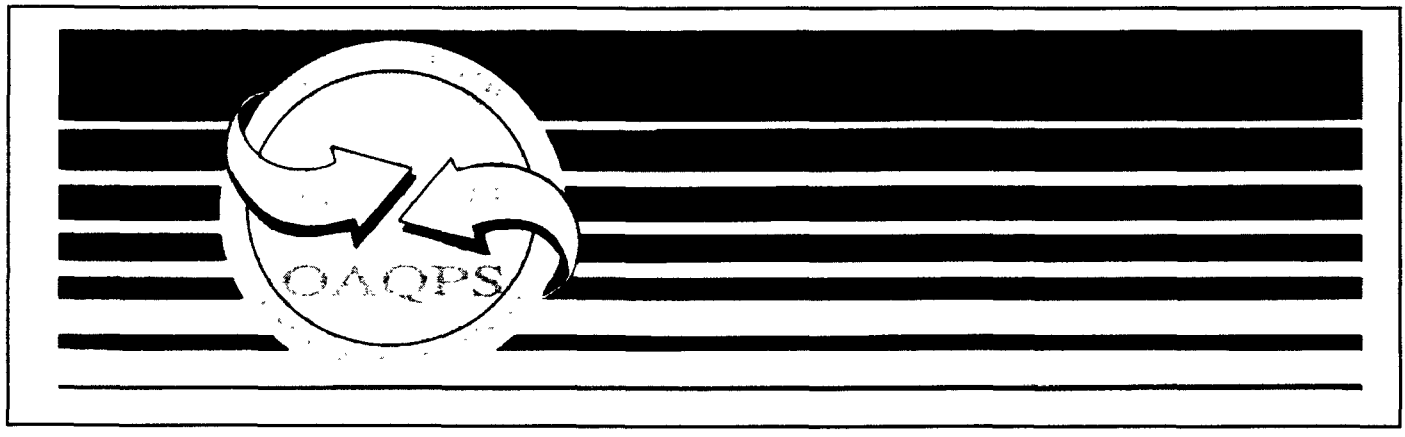
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP): POLYMERS AND RESINS (GROUPS I AND IV)

SUMMARY OF PUBLIC COMMENTS AND RESPONSES ON PROPOSED AMENDMENTS



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Emission Standards Division

U. S. Environmental Protection Agency
Office of Air and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, NC 27711

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ENVIRONMENTAL PROTECTION AGENCY

National Emission Standards for Hazardous Air Pollutants for Polymers and Resins (Groups I and IV) and Polyether Polyols Production– Background Information for Promulgated Amendments

Prepared by:

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1 The final National Emission Standards for Hazardous Air Pollutants (NESHAP) will regulate emissions of hazardous air pollutants from Polymers and Resins (Groups I and IV) manufacturing operations. Only those operations that are part of major sources under section 112(d) of the Clean Air Act as amended in 1990 will be regulated.

2 Copies of this document have been sent to the following Federal Departments: Labor, health and Human Services, Defense, Transportation, Agriculture, Commerce, interior, and Energy; the national Science Foundation; and the Council on environmental Quality; members of the State and Territorial Air Pollution program Administrators; the Association of Local Air Pollution Control Officials; EPA Regional Administrators; and other interested parties.

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1.0 SUMMARY

1.1 BACKGROUND

On September 5, 1996 (61 FR 46906) and September 12, 1996 (61 FR 48208), the EPA issued the "National Emission Standards for Hazardous Air Pollutants: Group I Polymers and Resins," (40 CFR part 63, subpart U) and the "National Emission Standards for Hazardous Air Pollutants: Group IV Polymers and Resins," (40 CFR part 63, subpart JJJ), respectively, under Section 112(d) of the Act. On March 9, 1999, the EPA proposed amendments to both subparts U and JJJ (64 FR 11560).

Public comments were requested on the proposed amendments and comment letters were received from industry representatives. A total of six comment letters were received. Table 1-1 presents a listing of all persons that submitted written comments, their affiliation, and their air docket number and item number. A public hearing was not requested.

In the March 9, 1999 notice, the EPA also requested comments on the application of specific concepts that were being proposed for the Polymers and Resins rules to 40 CFR subpart PPP (Polyether Polyols Production). In some instances, subpart PPP directly references sections of subpart U to which amendments were proposed. In other instances, the EPA proposed to incorporate concepts into subpart PPP that were proposed in subparts U and JJJ on March 9, 1999. No comments specific to subpart PPP were received. Therefore, on June 1, 1999 (64 FR 29420), the EPA published the final Polyether Polyols Production NESHAP, which included the concepts proposed in the March 9, 1999 action.

The written comments that were submitted on the proposed amendments to subparts U and JJJ have been summarized, and responses to the comments are included in the following sections. This summary of comments and responses serves as the basis for revisions made to the NESHAP between proposal of amendments to subparts U and JJJ of part 63 and promulgation of the amendments to those subparts.

TABLE 1-1. LIST OF COMMENTERS ON PROPOSED NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Air Docket Number	Docket Item Number	Commenter and affiliation	Date of Letter
A-92-44	VIII-D-04	D.L. Chapman, Goodyear Tire & Rubber Co.	05-06-99
A-92-44	VIII-D-05	S.V. Capone, GE Plastics[a]	05-08-99
A-92-44	VIII-D-06	R.K. Richmond, Firestone Synthetic Rubber & Latex Co.	05-05-99
A-92-44	VIII-G-01	B.L. Taranto, Exxon Chemical Americas	06-23-99
A-92-45	VIIIa-D-02	J.A. Dege, DuPont SHE Excellence Center	05-07-99
A-92-45	VIIIa-D-03	S.C. Myers, Eastman Chemical Co.	05-07-99
A-92-45	VIIIa-D-04	S.V. Capone, GE Plastics	05-08-99

[a] The same comment letter from S.V. Capone, GE Plastics, was submitted to both dockets. Whenever a comment made by this commenter is cited throughout this document, both docket item numbers are listed.

1.2 SIGNIFICANT CHANGES SINCE PROPOSAL OF AMENDMENTS

In response to comments received on the proposed amendments, several changes have been made to the final NESHAP. A summary of the substantive changes made since the March 9, 1999 proposal is provided in the following sections. Section 2.0 provides a detailed summary of all comments and EPA responses, along with regulatory text.

1.2.1 Compliance Dates

Due to the extensive nature of the amendments and the proximity of the proposed amendments to the September 1999 compliance dates (September 5 for subpart U and September 12 for subpart JJJ), several commenters requested an extension of the compliance dates for existing sources. They indicated that due to the amendments, they would have to re-evaluate applicability, compliance status, and the basis for demonstrating compliance. After review of the comments submitted on this issue, and the specific rule examples provided, the EPA decided that setting a new compliance date for the revised rule was warranted. Therefore, on June 30, 1999, the EPA published a direct final rule in the Federal Register (64 FR 35023), which stayed certain compliance dates "indefinitely." In the June 30, 1999 Federal Register notice, the EPA indicated that new compliance dates that would provide a reasonable amount of time in which to comply with the amended regulations would be published when the final amendments to the regulations were promulgated.

As pointed out by the commenters, many of the rule changes that may impact compliance are related to the provisions that are used to determine whether controls are required for a particular emission point. In addition, the EPA recognized that a change in compliance date also impacts certain reports that are required to be submitted prior to the compliance date (discussed below). One commenter suggested a compliance date of at least nine months after promulgation of the amendments. However, the EPA did not believe that nine months was a sufficient time period to allow for (1) the re-evaluation of whether controls are required by the owner or operator, (2) the submission of reports that are due prior to the compliance date, and (3) review of these reports by the Administrator. The EPA concluded that one year was a reasonable amount of time for accomplishment of these activities. Therefore, the final amendments require that existing affected sources comply with the non equipment leak requirements by the date one year after publication of the promulgated amendments.

One of two documents, the precompliance report or the emissions averaging plan (if applicable), is required to be submitted prior to the compliance date. The dates that these reports were originally required to be submitted were prior to the publication of the proposed amendments on March 9, 1999. The EPA believes that owners or operators should have the opportunity to submit, or resubmit, these reports after evaluating the final amendments. Therefore, the final amendments change the required submission dates of the emissions averaging plan to three months after the publication date (nine months before the compliance date) and the precompliance report to six months after the publication date (six months before the compliance date).

In another compliance date issue, a commenter requested that the compliance date for newly created emission points be changed to 120 days after the initial startup, rather than the proposed requirement that such points be in compliance at initial startup. The EPA agrees that time may be necessary to evaluate the actual impact of a process change after initial startup in some instances. Therefore, the final rule requires that new emission points and newly created Group 1 emission points be in compliance with the existing source requirements within 120 days of initial startup.

1.2.2 Additions to Existing Affected Sources

The proposed definition of reconstruction and the proposed provisions that applied the definition of reconstruction {§§63.480(i)(2)(i) and 63.1310(i)(2)(i)} were inconsistent. To summarize, the proposed §§63.480(i)(2)(i) and 63.1310(i)(2)(i) stated that if any process change **or addition** that meets the definition of reconstruction is made after June 5, 1995 (June 12, 1995 for subpart JJJ), the source is a new affected source. However, the proposed definition of reconstruction in §§63.482 and 63.1312 only addressed the "replacement", and not the "addition", of components. One commenter suggested that the definition of "reconstruction" be amended to also include additions.

The General Provisions for part 63 clearly separate replacements from additions. The definition of reconstruction in the General Provisions only addresses the "replacement" of components, while §63.5(b)(6) of the General Provisions addresses additions. In the proposed language for §§63.480(i)(2)(i) and 63.1310(i)(2)(i), these two concepts were combined, thus creating confusion and making them inconsistent with the EPA's policies regarding replacements

and additions. Therefore, rather than amending the definition of reconstruction in §§63.482 and 63.1312, the EPA has revised the provisions in §§63.480(i)(2) and 63.1312(i)(2) to clearly distinguish how replacements of components are to be considered and how additions are to be considered. In summary, if the replacement of components at an existing affected source meets the definition of reconstruction, then the affected source becomes a new affected source. If an addition is made to an existing affected source, then the addition becomes part of the existing affected source.

1.2.3 Halogenated Process Vent Provisions

The purpose of the halogenated vent provisions is to reduce the hydrogen halides that are created when halogenated organic compounds are routed to a combustion device. Therefore, the important location for determining whether a vent stream is halogenated is prior to the stream entering a combustion device. The location specified in both subparts U and JJJ for making batch vent group determinations is at the exit of the batch unit operation (i.e., before any recovery, recapture, or combustion device). Therefore, any reduction in the mass emission rate of halogen atoms that occurs in a recovery or recapture device would not be taken into account. A commenter requested that the rules allow the determination of the concentration of each organic compound containing halogen atoms at the recovery device or process discharge, for the purposes of determining whether the vent stream is considered to be a halogenated batch process vent. The EPA agreed, and in the final amendments, the rules have been changed to specify that the concentration of each organic compound containing halogen atoms be determined "at the exit of the last recovery or recapture device."

1.2.4 Requirements During Startup, Shutdown, and Malfunction and During Periods of Nonoperation

Several comments were received on the provisions related to the requirements during startup, shutdown, and malfunction and during periods of nonoperation. As a result of these comments, the following changes were made. In the final rule, excess emissions are defined as "emissions greater than those allowed by the emissions limitation which would apply during operational periods other than start-up, shutdown, and malfunction." Also, the amount of information required to be submitted with reports of startups, shutdowns, and malfunctions was

reduced to the level specified by the 40 CFR Part 63 General Provisions. Finally, the rules were revised to clarify that immediate startup, shutdown, and malfunction reports are not required.

1.2.5 Definition of Organic HAP

As a result of comments, the table specifying known hazardous air pollutants (HAP) emitted for specific elastomer/thermoplastic products has been revised for certain products. Specifically, in subpart U, checks for hexane, toluene, and xylenes for the styrene butadiene rubber by emulsion and styrene butadiene latex elastomer products were removed. Carbon disulfide was added to the table and checked for styrene butadiene rubber by emulsion. Also, in subpart JJJ, the check for 1,3-butadiene for the Actrylonitrile styrene acrylate resin/Alpha methyl styrene acrylonitrile resin (ASA/AMSAN) product was removed.

2.0 SUMMARY OF PUBLIC COMMENTS AND RESPONSES

In the comment summaries and responses contained in the following sections, an addition to specific rule language is represented by underlining, while text removed is represented in ~~strikeout~~ font.

2.1 APPLICABILITY

Applicability: Comments on Both Rules

Comment: Commenter VIII-D-04 believed that the vague language in §§63.480(a)(3) and 63.1310(a)(3) might cause confusion among owners and operators. The commenter suggested the following change:

> "A new affected source is defined by ~~as something that meets~~ the criteria of paragraph (a)(3)(i), (a)(3)(ii), or (a)(3)(iii) of this section."

Response: The EPA agrees with the commenter, and has made the suggested change in the final versions of subparts U and JJJ.

Comment: Commenter VIII-D-05/VIIIa-D-04 pointed out that §§63.480(f)(3) and 63.1310(f)(3) contradict §§63.480(f)(9) and 63.1310(f)(9), in that paragraph (f)(9) allows an owner or operator to state that they will never produce another elastomer or thermoplastic and, therefore, that their source is exempt from subpart U or JJJ, while paragraph (f)(3) requires an annual redetermination of the primary product of a process unit that has produced ANY elastomer or thermoplastic in the previous 5 year period. The commenter requested that the EPA clarify that the owner or operator of a flexible operation unit that has permanently terminated the production of elastomers (or thermoplastics) is not required to perform the annual primary product redetermination discussed in paragraph (f)(3).

Response: The EPA agrees that clarification is needed regarding the interaction between §§63.480(f)(3) and 63.1310(f)(3) and §§63.480(f)(9) and 63.1310(f)(9). Therefore, in the final rule, §§63.480(f)(3) and 63.1310(f)(3) were revised to provide that clarification. Paragraph §63.480(f)(3) reads as follows, and §63.1310(f)(3) mirrors the following language:

(3) Annual Applicability Determination for non-EPPUs that have produced an elastomer product. Once per year beginning September 5, 2001, the owner or operator of each flexible operation unit that is not designated as an EPPU, but that has produced an elastomer product at any time in the preceding five-year period or since the date that the unit began production of any product, whichever is shorter, shall perform the evaluation described in paragraphs (f)(3)(i) through (f)(3)(iii) of this section. However, an owner or operator that does not intend to produce any elastomer product in the future in accordance with (f)(9) of this section is not required to perform the evaluation described in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

Comment: Commenter VIII-D-05/VIIIa-D-04 objected to the requirement that the owner or operator of an EPPU or TPPU that has been operating as a flexible operation unit must continue to comply with subpart U or JJJ (as applicable), even when elastomer/thermoplastic products are no longer the primary product of the flexible operation unit, if the new primary product does not make the flexible operation unit subject to another subpart of part 63.

Response: The provisions referred to by the commenter are contained in §§63.480(f)(10) and 63.1310(f)(10). These provisions specify that the owner or operator redetermine the primary product of a process unit (based on actual previous production) whenever changes in products occur that could reasonably be expected to change the primary product. If the primary product indeed changes, then the process unit would no longer be subject to subpart U or JJJ if the new primary product makes the process unit subject to another subpart of part 63 (i.e., another MACT standard). If the new primary product does not make the process unit subject to another subpart of part 63, then the process unit must continue to comply with subpart U or JJJ, provided that the production of elastomer/thermoplastic continues. If production of all elastomers or thermoplastics has ceased, the process unit would no longer be subject to subpart U or JJJ, provided that the conditions in §§63.480(f)(9) or 63.1310(f)(9) are met.

If the EPA had incorporated the commenter's suggestion, a major source could have continued to produce a product covered by subpart U or JJJ (i.e., an elastomer or thermoplastic) and to emit hazardous air pollutants (HAP), but not be subject to any requirements to reduce those HAP emissions. In fact, controls that were in place earlier to reduce HAP emissions would no longer have been required, and might be removed. The EPA does not believe that it is appropriate to remove a product from coverage of the rule under these circumstances, nor does it

believe the Clean Air Act dictates placing the source in a yet unregulated category. Therefore, the final rule was not changed in response to this comment.

Comment: Commenter VIII-D-04 requested that §§63.480(i)(1)(i) and 63.1310(i)(1)(i) be modified as follows:

> "If a group of one or more EPPUs[TPPUs] that produce the same primary product is added to a plant site, the added group of one or more EPPUs[TPPUs] and associated equipment, as listed in paragraph (a)(4) of this section, shall be a new affected source and shall comply with the requirements for a new affected source in this subpart upon initial start-up or by September 5[12], 1996, whichever is later, if the added group of one or more EPPUs[TPPUs] meets the criteria ~~specified~~ in either paragraph (i)(1)(i)(A) or (i)(1)(i)(B) ~~are met~~, and if the criteria in either paragraph (i)(1)(i)(C) or (i)(1)(i)(D) of this section are met."

Response: The EPA agrees that the suggested changes clarify the intent of this paragraph that only the added EPPUs/TPPUs (and not existing EPPUs/TPPUs that were part of an existing affected source at the plant site) would comprise the new affected source. Therefore, the suggested change was made in the final amendments.

Comment: Commenter VIII-D-05/VIIIa-D-04 believes that, as proposed, §§63.480(i)(2) and 63.1310(i)(2) do not provide enough time (or the opportunity to request enough time) between the day on which a process change causes the addition of an emission point to an EPPU/TPPU or causes a Group 2 emission point to become a Group 1 emission point, and the day on which the owner or operator is required to be in compliance with subpart U or JJJ for that emission point. The commenter pointed out that under the promulgated rules, the owner or operator was only required to comply with the applicable requirements as "expeditiously as practical" after such a change [§§63.480(i)(3) and 63.1310(i)(3)], and that if the owner or operator was going to be unable to comply with the new requirements, then the owner or operator could seek additional time to comply [§§63.480(i)(2)(ii) and (iii) and 63.1310(i)(2)(ii) and (iii)]. In the proposed amendments, the emission point must be in compliance at initial startup of the emission point. The commenter requested that the EPA allow a finite amount of time (they suggested 120 days) in which the owner or operator must bring an emission point into compliance after a process change. The commenter indicated that the situation could occur

where post-process change data reveals that controls are required (i.e., the emission point is Group 1) when it was predicted that control was not required based on best estimates before the change. In this situation, the owner or operator would be out of compliance. Allowing 120 days after initial startup would allow evaluation of the actual post-process change conditions. In addition, the commenter stated that due to changes in the language in §§63.480(i)(2)(ii), (i)(2)(iii), and (i)(3) and 63.1310(i)(2)(ii), (i)(2)(iii), and (i)(3) in the proposed amendments, the commenter believes that the owner or operator would no longer be able to seek additional time to comply. The commenter stated that the proposed amendments to §§63.481(e) and 63.1311(e), as well as the amendments to the applicability of §63.6 of the General Provisions (in Table 1 of subparts U and JJJ) do not remedy this situation. The commenter requested that the EPA allow requests for approval of compliance extensions of up to one year after the process change, when necessary.

Response: In the promulgated rule, §§63.480(i)(2)(ii) and 63.1310(i)(2)(ii) addressed the general situation where a process change is made or an emission point added that creates an additional Group 1 emission point. Paragraphs §63.480(i)(3) and §63.1310(i)(3) addressed situations where a process change causes a Group 2 emission point to become Group 1. Upon reconsideration of these provisions, the EPA concluded that there could not be a situation covered by §63.480(i)(3) or §63.1310(i)(3) that would not also be covered by §63.480(i)(2)(ii) and §63.1310(i)(2)(ii). Therefore, as described in the preamble to the proposed amendments (64 FR 11572), §63.480(i)(3) and §63.1310(i)(3) were removed to eliminate this redundancy.

However, while these paragraphs covered the same situation, they contained different dates on which a newly created Group 1 point was required to comply. Paragraphs §63.480(i)(2)(ii) and §63.1310(i)(2)(ii) stated that the emission point must comply upon initial startup, or by 3 years after September 5, 1996, whichever is later. Those paragraphs did contain the option to obtain an extension of this compliance date pending the approval of the Administrator. Paragraphs §63.480(i)(3) and§63.1310(i)(3), which were quoted by the commenter, required compliance "as expeditiously as practicable, but in no event later than 3 years after the emission point becomes a Group 1 emission point." In evaluating this difference prior to the March 9, 1999 proposal of amendments to subparts U and JJJ, the EPA concluded that the compliance date provisions in §63.480(i)(2)(ii) and §63.1310(i)(2)(ii) were more

appropriate. The EPA did not believe that owners or operators needed three years to bring these new emission points, which would be additions to existing affected sources that were already in compliance with the rule, into compliance.

The commenter requested that the compliance date be changed to 120 days after the initial startup. The EPA believes that the rationale provided by the commenter related to the need to conduct a final evaluation of whether controls are required after the process change is reasonable. Therefore, the final rule requires that new emission points and newly created Group 1 emission points be in compliance with the existing source requirements within 120 days of initial startup.

However, the EPA does not agree with the commenter's statement that the compliance date extension provisions of §63.481(e) and §63.1311(e) do not provide relief in this situation. A compliance extension can be requested up to 120 days before the compliance date via §63.481(e) or §63.1311(e), or even later under the circumstances described in §63.481(e)(3) or §63.1311(e)(3).

This comment did result in a small change to one sentence in §63.481(e) and §63.1311(e), which now reads as follows: "Requests for extensions shall be submitted no later than 120 days prior to the compliance dates specified in paragraphs (b) through (d) of this section, or as specified elsewhere in this subpart, except as provided in paragraph (e)(3) of this section." This clarifies that the compliance date extension provisions apply to all compliance dates, which includes the compliance dates established for new emission points or newly created Group 1 emission points via §63.480(i)(2)(ii) and §63.1310(i)(2)(ii).

Comment: Commenter VIII-D-05/VIIIa-D-04 stated that the provisions proposed as §§63.480(j) and 63.1310(j) are inadequate for excusing owners and operators from control requirements during periods of non-operation. The commenter interpreted the proposed text in §§63.480(j)(1) and 63.1310(j)(1) as providing an exemption from the substantive requirements, monitoring and recordkeeping requirements, and work practice requirements for affected sources during periods of non-operation, but the commenter stated that this regulatory language was not definitive on this issue. The commenter requested clarification that the emission limits from

which a source is exempt during non-operation include substantive (e.g., control requirements), as well as monitoring, recordkeeping, and work practice requirements.

Response: The definition of emission limitation that is contained in section 302(k) of the Clean Air Act is incorporated into both subparts U and JJJ. An emission limitation is described as "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis including any requirement related to the operation or maintenance of a source to assure continuous emission reduction, and any design equipment, work practice, or operational standard promulgated under this Act." Based on this definition , the EPA confirms that an "emission limitation" includes control requirements, as well as associated monitoring, recordkeeping, and work practice requirements. Therefore, the EPA did not change the language in §§63.480(j)(1) and 63.1310(j)(1) in the promulgated amendments to subparts U and JJJ.

Comment: Commenter VIIIa-D-02 requested that proposed §§63.480(j)(3) and 63.1310(j)(3) be revised, so that monitoring would not be required during periods of non-operation when the owner or operator could demonstrate that a monitor would collect data that would be invalid, or that the collection of data during a particular period of non-operation would damage the monitor.

Response: Sections 63.480(j)(3) and 63.1310(j)(3) prohibit the owner or operator from shutting down control or monitoring equipment during "periods of start-up, shutdown, or malfunction during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment . . . " First, the EPA believes that it is clear that these paragraphs apply only during start-up, shutdown, and malfunction events. There is no requirement to monitoring during periods of non-operation in either §63.480(j)(3) or §63.1310(j)(3). Further, the EPA believes that emissions, or wastewater streams or residuals, would not be routed to control or monitoring equipment during periods of non-operation, which further clarifies why the provisions in §§63.480(j)(3) and 63.1310(j)(3) are not applicable during periods of non-operation. In conclusion, the EPA believes that the proposed rule language in §§63.480(j)(3) and 63.1310(j)(3) was clear, and it was not changed in the final rule.

Applicability: Comments on Subpart JJJ

Comment: Commenter VIII-D-05/VIIIa-D-04 was concerned that the proposed amendments to §§63.480(e) and 63.1310(e) implied that the EPA had reversed its decision, which was apparent in the September 1996 promulgated requirements, that process units used to produce elastomers (i.e., Group I Polymers and Resins, such as styrene-butadiene latex produced by an emulsion process, or SBL) which are, in turn, used at least 50 percent of the time to produce thermoplastics (i.e., Group IV Polymers and Resins, such as acrylonitrile butadiene styrene latex resin, or ABS latex) would be subject to the requirements of subpart JJJ, but not to the requirements of subpart U.

The commenter interpreted the interaction of the requirements in §§63.480(e) and 63.1310(e) of the rules promulgated in 1996 to mean that collocated elastomer production operations would be regulated solely under subpart JJJ, as long as at least 50 percent of the elastomer was used in the on-site production of thermoplastics. However, the commenter interpreted the proposed amendments to §63.1310(e) to mean that the EPA was reversing this decision. The commenter was particularly concerned that the last sentence in the proposed amendments to §63.1310(e), which reads "All emission points from those unit operations that are not subject to another subpart of this part shall be subject to this subpart," might be intended to make collocated elastomers subject to subpart U.

Response: The EPA agrees that the language in §§63.480(e) and 63.1310(e) does not clearly express the EPA's intent, which is that collocated equipment producing elastomers which are used at least 50 percent of the time to produce thermoplastics should be subject to the requirements of subpart JJJ, and should be exempt from the requirements in subpart U. The proposed amendments were intended to clarify that if some emission points from a unit operation (such as wastewater streams) are already subject to another MACT standard (e.g., the Hazardous Organics NESHAP, or HON), then those emission points would not be subject to the subpart JJJ requirements for such emission points as well as to the requirements for those emission points in the earlier MACT standard. This clarification was attempted by stating that "emission points" (instead of unit operations) subject to another (previously existing and in effect) MACT standard "shall remain" subject to that other MACT standard. This proposed change was not intended to make emission points involved in the production of elastomers that will be used to make

thermoplastics (at least 50 percent of the time) subject to subpart U instead of subpart JJJ. In an effort to alleviate the commenter's concern, the following changes were made to §63.1310(e), in the final rule:

> "Applicability determination of nonthermoplastic equipment included within the boundaries of a TPPU. If a polymer that is not a thermoplastic product ~~subject to this subpart~~ is produced within the equipment (i.e., collocated) making up a TPPU and at least 50 percent of that ~~said~~ polymer is used in the production of a thermoplastic product manufactured by the same ~~said~~ TPPU, then the unit operations involved in the production of that ~~said~~ polymer are considered part of the TPPU and are subject to this subpart, with the following exception. ~~except as specified in this paragraph (e).~~ Any emission points from such unit operations that are subject to another subpart of this part with an effective date prior to September 5, 1996 ~~and that are from said unit operations~~ shall remain subject to that other subpart of this part and are not subject to this subpart. ~~All emission points from those unit operations that are not subject to a subpart of this part an effective date prior to September 5, 1996 shall be subject to this subpart.~~

2.2 COMPLIANCE DATES

Compliance Dates: Comments on Both Rules

Comment: Commenters VIIIa-D-02, VIIIa-D-03, and VIII-G-01 requested an extension of the compliance dates for existing sources, due to the fact that the proposed amendments are extensive (often requiring owners or operators to re-evaluate applicability, compliance status, the basis for demonstrating compliance, etc.) and have not yet been promulgated. Commenter VIII-G-01 stated that the EPA should extend (or stay) the compliance dates for at least 9 months after promulgation of the proposed amendments.

Response: As discussed in the preamble to the proposed amendments (64 FR 11573), the EPA was aware of the possibility that specific proposed amendments might affect the compliance status of one or more facilities. Comments were specifically requested on this issue, along with specific examples of the rule changes that could cause a facility to be out of compliance.

After review of the comments submitted in response to this request, and the specific rule examples provided, the EPA decided that setting a new compliance date for the revised rule was warranted. Therefore, on June 30, 1999, the EPA published a direct final rule in the Federal Register (64 FR 35023), which added notes at the end of the appropriate paragraphs, stating that the compliance date discussed in each paragraph was being stayed indefinitely. This stay took affect on August 30, 1999. Specifically, this action stayed the existing source compliance dates

for storage vessels, process vents, back-end process operations (subpart U only), heat exchange systems, and wastewater. The emission sources at existing affected sources that were not impacted by this stay were equipment leaks and process contact cooling tower provisions at facilities that produce PET using a continuous terephthalic acid high viscosity multiple end finisher process. This action also stayed the compliance date for all emission sources at new affected sources that had an initial start-up date after March 9, 1999.

In the June 30, 1999 Federal Register notice, the EPA indicated that new compliance dates, which would provide a reasonable amount of time to comply with the amended regulations, would be published when the final amendments to the regulations were promulgated. As pointed out by the commenters, many of the rule changes that may impact compliance are related to the provisions that are used to determine whether controls are required for a particular emission point (i.e., whether an emission point is Group 1 or Group 2). In addition, the EPA recognized that a change in compliance date also impacts certain reports that are required to be submitted prior to the compliance date (discussed below). One commenter suggested a compliance date of at least 9 months after promulgation of the amendments. Nine months may be an adequate time period for owners or operators to re-evaluate whether controls are required and install controls in the rare instances where the group status of an emission point changed due to the amendments. However, the EPA does not believe that nine months would allow for these actions plus the submission of reports by owners and operators and review of these reports by the Administrator. The EPA concluded that one year is a "reasonable amount of time" for accomplishment of these actions.

Therefore, the final amendments require that existing affected sources comply with the non-equipment leak requirements by the date one year after publication of the promulgated amendments. Specifically, the compliance dates in §§63.481(c), 63.481(d)(6), and 63.1311(c) have been changed to the date one year after the publication date of the final amendments. In addition, the final amendments at §§63.481(b) and 63.1311(b) reflect the requirements of the Clean Air Act that all new affected sources comply with the amended regulations on the publication date or at initial start-up, whichever is later, with the following exception. New affected sources that produce PET as their primary product are not required to comply with the

equipment leak provisions in §63.1331 until February 27, 2001 or at initial start-up, whichever is later.

One of two documents, the precompliance report or the emissions averaging plan (if applicable), must be submitted prior to the compliance date. The dates that these reports were originally required to be submitted were prior to the publication of the proposed amendments on March 9, 1999. The EPA believes that owners or operators should have the opportunity to submit, or resubmit, these reports after evaluating the final amendments. Therefore, the final amendments change the required submission date of the emissions averaging plan to three months after the publication date (nine months before the compliance date) and the due date of the precompliance report to six months after the publication date (six months before the compliance date). Even if no changes are needed to an emissions averaging plan or precompliance report previously submitted, the final rule requires that the owner or operator either re-submit the plan or report, or submit a notification that the previously submitted plan or report is still valid. This will avoid any confusion regarding the owner or operator's intention.

Compliance Dates: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-02 pointed out that the EPA is still actively working on a response to petitioners' requests that ethylene glycol emissions from the process contact cooling towers commonly used in PET production facilities, and ethylene glycol emissions from equipment leaks, not be regulated. Commenter VIIIa-D-02 stated that the compliance date for PET affected sources should be extended for one year after the EPA has taken final action regarding PET process contact cooling towers and ethylene glycol equipment leaks, and published notice of this final action in the Federal Register.

Response: First, the EPA agrees with the commenter that work is continuing on the requirements for process contact cooling towers and equipment leaks that apply to PET affected sources. The EPA also agrees that owners or operators should not be required to comply with these provisions until final action is taken. The compliance date for PET process contact cooling towers is February 27, 2001. This date was not affected by the proposed amendments. Also, on June 8, 1999 (64 FR 30406), the EPA published a direct final rule extending the compliance date for the equipment leak provisions, as they apply to PET production facilities, to February 27,

2001. This extension became effective on August 9, 1999. Therefore, the EPA believes that no additional action is needed with regard to the compliance dates for PET process contact cooling towers and equipment leaks. Further, the EPA does not believe that ongoing work on these provisions impacts the ability of an owner or operator to comply with the requirements for other emission points. In conclusion, no changes are being made in response to this comment.

2.3 DEFINITIONS

Definitions: Comments on Both Rules

Comment: Commenters VIIIa-D-03 and VIIIa-D-02 found the definition of "net positive heating value" in the proposed amendments to be confusing and contradictory. Commenter VIIIa-D-03 demonstrated their specific concern caused by this definition as follows:

- Let H_{CHEM} = heat value of the recovered chemical stream
- Let H_{FLAME} = minimum heat value required to ensure a stable flame
- The difference between the heat value of the recovered chemical stream and the minimum heat value required to ensure a stable flame is then represented by: $H_{CHEM} - H_{FLAME}$
- According to the second clause of the first sentence, $H_{CHEM} < H_{FLAME}$
- However, if $H_{CHEM} < H_{FLAME}$, then $H_{CHEM} - H_{FLAME}$ will always be less than zero (i.e., negative)
- It is impossible to meet the condition in the last sentence ("This difference must have a positive value...)

Commenter VIIIa-D-03 stated that the EPA should either remove the definition, or revise it so that its meaning is clear. Commenter VIIIa-D-02 stated that the definition was not necessary, based on the fact that other NESHAP (including the HON) recognize the reclamation of chemical streams for fuel value without attempting to specifically define "net positive heating value." Commenter VIIIa-D-02 stated that owners and operators of HON affected sources must demonstrate "in engineering terms appropriate to each individual situation that the recovered stream has net positive heating value." This commenter felt that a single, all-inclusive definition that works for every situation might not be possible for this term. This commenter stated that if the EPA decided that a definition of "net positive heating value" was necessary, Title V permitting authorities should also be given the latitude to give case-by-case recognition to systems that can demonstrate recovery of chemicals for fuel value, but which do not satisfy the criteria in the definition of "net positive heating value" in subparts U and JJJ. Commenter VIIIa-

D-02 also suggested that a more workable concept (and a safer one, as discussed below) would be to require that, at a constant level of combustion device heat output, less commercial fuel is used with the recovered stream entering the combustion device than would be needed without the introduction of the recovered stream.

In addition, commenter VIIIa-D-02 stated that the proposed definition was overly restrictive, and claimed that it is not at all necessary for a stream to be able to support a stable flame in order for that stream to recover large quantities of heat. Commenter VIIIa-D-02 also argued that the proposed definition of "net positive heating value"counters safe practices in design and operation of systems such as the air strippers used at the commenter's facility, because chemical streams meeting the proposed definition of "net positive heating value" would have organic concentrations greater than the composite lower flammable limit of the organics in those streams.

Response: The addition of a definition of "net positive heating value" was an attempt to provide additional clarification to the definition of "recovery device," which uses the term "net positive heating value". However, the EPA recognizes that, as Commenter VIIIa-D-02 pointed out, a single all-inclusive definition that works for this term might not be possible; therefore, the entire term has been removed from the final amendments. Therefore, owners or operators of subpart U and subpart JJJ affected sources must be able to demonstrate in engineering terms appropriate to each individual situation that a recovered stream has net positive heating value.

Comment: Commenter VIII-D-04 suggested the following changes to the proposed definition of "reconstruction":

> *Reconstruction* means the replacement of or the addition of new components of an affected source or of a previously unaffected stationary source that becomes an affected source as a result of the ~~replacement~~ change, to such an extent that:
>
> (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new affected source; and
>
> (2) It is technologically and economically feasible for the reconstructed source to meet the provisions of this subpart.

Response: The suggestion raised by the commenter points out the inconsistency between the proposed provisions of §§63.480(i)(2)(i) and 63.1310(i)(2)(i) and the proposed definitions of reconstruction that were contained in §§63.482 and 63.1312. To summarize, the proposed §§63.480(i)(2)(i) and 63.1310(i)(2)(i) stated that if any process change **or addition** that meets the definition of reconstruction is made after June 5, 1995 (June 12, 1995 for subpart JJJ), the source is a new affected source. However, the proposed definitions of reconstruction in §§63.482 and 63.1312 only addressed the "replacement", and not the "addition", of components.

The General Provisions for part 63 provide basic provisions applicable to all part 63 standards. In the General Provisions, replacements are clearly separated from additions. The definition of reconstruction in the General Provisions only addresses the replacement of components. In fact, the proposed definitions of reconstruction in §§63.482 and 63.1312 were consistent with the definition of reconstruction in the General Provisions. In addition, §63.5(b)(6) of the General Provisions says that "equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard shall be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source." These excerpts from the General Provisions clarify the EPA's intention regarding how replacements and additions are to be addressed. In the proposed language for §§63.480(i)(2)(i) and 63.1310(i)(2)(i), these two concepts were combined, thus creating confusion and making them inconsistent with the EPA's policies regarding replacements and additions.

Therefore, rather than amending the definitions of reconstruction in §§63.482 and 63.1312, the EPA has revised the provisions in §§63.480(i)(2) and 63.1312(i)(2) to be consistent with these proposed definitions. In the final amendments, §63.480(i)(2)(i), (ii), and (iii) and §63.1310(i)(2)(i), (ii), (iii), and (iv), clearly distinguish how replacements of components are to be considered and how additions are to be considered.

Definitions: Comments on Subpart U

Comment: Commenter VIII-G-01 stated that the proposed amendments to the definition of "continuous front-end process vent" in subpart U would require that owners and operators re-analyze their compliance status and revise their monitoring, recordkeeping, and reporting

programs. The commenter stated that the proposed revision to this definition could also trigger Title V permit/application revisions.

The commenter stated that the proposed revisions provide different criteria for meeting the definition of continuous front-end process vent than the promulgated rule did. According to the commenter, the promulgated version of subpart U required that a process vent stream have both a concentration of 50 parts per million by volume (ppmv) and a flow rate of 0.005 standard cubic meters per minute, while the proposed amendments to the definition "delete the flow rate criteria altogether and... change the concentration criteria to 50 parts per million by weight." The commenter believes that the proposed change would cause owners and operators to have to re-evaluate vent streams that are known to be below either the flow rate or concentration cut-offs (and thus did not meet the definition of continuous front-end process vents) to determine whether or not they are below the new 50 parts per million by weight concentration cut-off. The commenter stated that this might cause vent streams with very low flow rates (i.e., less than 0.005 standard cubic meters per minute) and streams that are well below the 50 ppmv promulgated cutoff to become Group 2 continuous front-end process vents under the amended definition, triggering monitoring, recordkeeping, and reporting requirements that were not applicable under the promulgated rule. This change might also cause them to have to revise their Title V permits, or to re-submit Title V permit applications.

Response: The EPA agrees that amending the definition of continuous front-end process vent as proposed could cause previously exempt vent streams to be considered Group 2 continuous front-end process vents. The EPA originally intended that the definition of continuous front-end process vent mirror the HON definition of process vent, but inaccurately incorporated this concept into the promulgated rule. Therefore, the promulgated amendments to this definition maintain the criteria that were proposed on March 9, 1999, but the compliance date for existing affected sources has been extended to one year after publication of the final amendments in order to allow a reasonable compliance period for process vents affected in this manner, as requested by the commenter.

Comment: Commenter VIII-D-04 stressed that the proposed amendment to the definition of "elastomer product" in §63.482 (specifically, the separation of "polybutadiene rubber by solution" and "styrene butadiene rubber by solution" into two different products) was

problematic, in that, in accordance with the promulgated requirements, their stripping limit was set based on stripping data collected on the combined products. The commenter stated that the proposed separation of polybutadiene rubber/styrene butadiene rubber by solution into two different elastomer products would force them to review their data and possibly establish new stripping limits.

Response: The EPA agrees with the commenter. The two proposed products have been re-combined to represent one type of "elastomer product" in the final rule.

Comment: Commenter VIII-D-06 stated that the EPA used overly broad language in the proposed definition of "stripping", which excluded certain operations from the definition. The proposed preamble (64 FR 11560, 11580) stated that the definition of stripping was largely based on the promulgated definition of "stripping technology," except that it was intended to be more specific about which processes would be considered to be stripping, and which would not. The commenter stated that the proposed change could result in certain stripping processes (such as a series of drum dryers which have devolatilization as their primary purpose) being excluded. The commenter's main objection to the proposed definition was that the last sentence of the proposed definition excluded "devolatilization that occurs in dryers, extruders, and other finishing operations." The commenter suggested the following changes to the proposed definition of stripping:

> *Stripping* means the removal of organic compounds from a raw elastomer product. In the production of an elastomer, stripping is a discrete step that occurs after the reactors and before the dryers (other than those dryers with a primary purpose of devolatilization) and other finishing operations. Examples of types of stripping include steam stripping, direct volatilization, chemical stripping, and other methods of devolatilization. For the purposes of this subpart, devolatilization that occurs in dryers (other than those dryers with a primary purpose of devolatilization), extruders, and other finishing operations is not stripping.

Response: The EPA agrees with the commenter, and has made the suggested changes in the final rule.

Definitions: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-02 stated that, as proposed, the definition of "material recovery section" makes it difficult to determine whether condensers which remove ethylene glycol from vapor streams leaving PET polymerization vessels are part of the material recovery section or part of the polymerization reaction section. The commenter pointed out that the first sentence and the last two sentences of the proposed definition appeared to contradict one another. The commenter recommended that the definition clearly state that contact and non-contact condensers removing ethylene glycol from vapor streams coming out of polymerization vessels are part of the polymerization reaction section.

Response: Because equipment accomplishing the recovery of ethylene glycol or the separation of materials containing ethylene glycol is excluded from the material recovery section, the EPA agrees that including "ethylene glycol" in the opening part of the definition is confusing and does seem to contradict the final sentences of the definition. Therefore, "ethylene glycol" was removed from the opening sentences of this definition. Finally, the EPA agreed with the commenter that specifically stating that contact and non-contact condensers removing ethylene glycol from vapor streams coming out of polymerization vessels would also clarify the definition, and made this change in the final amendments to the rule.

Comment: Commenter VIII-D-05/VIIIa-D-04 was concerned that the definition of "supplemental combustion air", which was included in the promulgated rules as of May 10, 1999 (as a result of the Direct Final Rule published on March 9, 1999 [64 FR 11536]), could be interpreted as being overly broad and may require application of the oxygen correction factor when air is to be added to exhaust streams for proper control device operation or for protection from damage. Such an interpretation and the requirement to apply the oxygen correction would adversely impact the commenter's ability to comply with the provisions of §63.1316(c)(1)(iii)(A). Speaking to these provisions, the commenter stated that "the provisions in §63.1316(c)(1)(iii)(A) are incorrect relative to the application of the oxygen correction factor."

The commenter provided two examples where air is added to exhaust streams controlled by catalytic oxidizers to ensure proper operation and to prevent damage to the catalyst bed. First, according to the commenter, catalytic oxidizers are designed to operate above a minimum flow

rate. If the minimum flow rate is not maintained, proper mixing and distribution through the catalyst bed will not occur. This can lead to reduced destruction efficiency and damaging localized "hot spots" within the catalyst bed. Second, excessive catalyst bed temperatures can occur when the heat content of the inlet stream increases. According to the commenter, higher heat content of the inlet stream can result from either high concentrations of combustible material or high specific heat of the material contained in the inlet stream.

The commenter explained that the catalytic oxidizers they planned on installing are equipped to automatically add air to avoid the situations described above. The commenter emphasized that the addition of air is not a constant or prevailing occurrence. According to the commenter, properly designed and sized catalytic oxidizers operate without the addition of air at the conditions expected to be most prevalent during normal operations.

Response: The EPA agrees with the commenter that the addition of air to ensure proper operation and to avoid damage to control devices should not be considered supplemental combustion air. The following sentence was added to the end of the definition of supplemental combustion air: "Air required to ensure the proper operation of catalytic oxidizers, to include the intermittent addition of air upstream of the catalyst bed to maintain a minimum threshold flow rate through the catalyst bed or to avoid excessive temperatures in the catalyst bed, is not considered to be supplemental combustion air."

2.4 EMISSION STANDARDS

Emission Standards: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-03 asked what owners or operators of combined emissions sources in which none of the emission streams could be classified as Group 1 were expected to do to comply with the NESHAP. The commenter stated that §63.1313(b) does not address this scenario. The commenter pointed out the complexity of the provisions for combined vent streams, and stated that these provisions did not appear to address all possible scenarios (e.g., when having batch process vents combined with continuous process vents in a regulated section [such as raw materials preparation, material recovery, or polymerization reaction] which has no Group status). The commenter suggested simplifying the requirements in §63.1313(b), to allow owners or operators to have the option, at any time, of treating any combined vent stream

as a continuous process vent subject to §63.1315, with the Group status determined for the combined emissions after recovery devices but before control devices. Commenter VIIIa-D-03 stated that this approach would be environmentally sound, in that large combined vents (with a total resource effectiveness, or TRE, of less than 1.0) would be subject to strict controls. The commenter also pointed out the simplicity of this approach, in that it would avoid the need for the owner or operator to evaluate multiple vent streams in complicated piping configurations.

Response If a combined emission stream has no Group 1 emission streams, the combined emission stream could either have no emission streams requiring control or could have emission streams subject to §§63.1316 through 63.1320. For the first case, there is no reason for an owner or operator to evaluate the combined emission stream for control. For the second case, it is likely that a combined vent stream containing Group 2 emission streams (e.g., a storage vessel) and continuous process vents subject to §§63.1316 through 63.1320 would not meet the applicability criteria of the TRE. Under such a scenario, the commenter approach would say that emissions that are required to be controlled under the rule would no longer require control. Therefore, the EPA has not changed the rule in response to this comment.

2.5 CONTINUOUS PROCESS VENT PROVISIONS

Continuous Process Vent Provisions: Comments on Subpart U

Comment: Commenter VIII-D-04 believed that the exemption promulgated under §63.485(q)(1) should be expanded to exempt existing affected sources producing polybutadiene and styrene butadiene rubber by solution from the Group 1 halogenated continuous process vents, for the same reasons that existing affected sources producing butyl rubber, halobutyl rubber, and ethylene propylene rubber by solution are exempted from the Group 1 halogenated continuous front-end process vent requirements under certain conditions. The commenter stated that the reasons given for exempting existing affected sources producing butyl rubber, halobutyl rubber, and ethylene propylene rubber by solution (that even though halogenated catalyst may be used in the process, the existing level of control was venting to a flare or boiler; that the cost associated with the HON level of control was unreasonable for these sources; and that, due to widely varying concentrations in the streams, it would be difficult to accurately determine halogen

levels) also apply to existing affected sources producing polybutadiene and styrene butadiene rubber by solution.

In addition, the halogenated catalysts used by the commenter are not listed HAP. The commenter stated that Congress only gave the EPA authority to regulate listed HAP under Title III of the Clean Air Act.

Response: The provisions in §63.485(q)(1) (as promulgated on September 5, 1996) exempt existing affected sources producing butyl rubber, halobutyl rubber, and ethylene propylene rubber using a solution process from the requirement to control hydrogen halides at the exit of a combustion device. For each of these subcategories, the EPA determined that the floor level of control did not include the control of these halogen halides at the exit of a combustion device (see *Basis and Purpose Document for Proposed Standards*, May 1995, EPA-453/R-95-006a, and *Basis and Purpose Document for Final Standards, Summary of Public Comments and Responses*, June 1996, EPA-453/R-96-006b). For each case, the EPA was provided with facility-specific information that led to the floor determinations. The EPA understands that the rationale for the floor level for the ethylene propylene rubber subcategory may also apply to polybutadiene rubber and styrene butadiene rubber by solution. However, the EPA has never been provided with any facility-specific data that would support a conclusion that the floor level of control would not include such control. In fact, the data originally submitted by polybutadiene/styrene butadiene rubber by solution producers did not include emissions of hydrogen chloride (HCl) or other hydrogen halides. Therefore, no change was made in response to this comment.

In response to the commenter's last point, the requirements that the commenter objects to do regulate listed HAP. The halogenated catalysts or other halogenated compounds are converted to listed HAP in some circumstances. For instance, HCl, which is emitted at the exit of a device that is combusting chlorinated organics, is a listed HAP.

Combined Process Vent Provisions: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-03 was concerned about the statement in §63.1318(a) which indicated that "references to group determinations (i.e., total resource effectiveness)" in the HON process vent provisions do not apply to PET and polystyrene affected sources. The commenter pointed out that the HON has stricter requirements for Group 1 process vents than for

Group 2 process vents, and that if the owner or operator was not able to take into consideration the group status of a process vent, then the stricter requirements would always apply to that process vent, regardless of its group status. The commenter recommended that the EPA remove the statement which reads "references to group determinations (i.e., total resource effectiveness) do not apply" from §63.1318(a). Alternatively, the commenter suggested that the EPA include an exemption for process vents with emissions (on a percentage basis) less than a certain amount of the total allowable emissions for a particular process section. In particular, the commenter stated that such an exemption should apply to performance testing requirements and requirements to keep records of and to report start-ups, shutdowns, and malfunctions. The commenter also stated that the EPA should allow a low flow rate exemption, to be consistent with the HON process vent provisions.

Response: The process vents subject to §§63.1316 through 63.1320 are not subject to the HON provisions, and the concept of "group status" does not apply for these process vents. These requirements are not applied to individual process vents, but to all process vents in entire sections of the process unit. The EPA included the statement that "references to group determinations (i.e., total resource effectiveness) do not apply" in order to avoid confusion over the use of the testing procedures in §63.116 which contain references to group determinations and group status. This part of the rule has been consistent since the original proposal in 1995. Opportunity to comment on this basic concept was provided at the time of the original proposal. While the EPA is not accepting comments on this basic concept, following is a brief response to the comment.

The EPA does not believe that an exemption for certain process vents subject to §§63.1316 through 63.1320 is appropriate. The promulgated provisions are based on the fact that the Polymer Manufacturing NSPS, which do not provide any exemptions for low emitting process vents, was the basis for the MACT floor. Further, the promulgated provisions provide an owner or operator with various compliance demonstration options, including a kilogram of HAP per megagram of product limit, which allows the owner or operator to choose which process vents are routed to a control device. Finally, the request to exempt certain process vents from performance testing, recordkeeping, and reporting requirements does not recognize that the

majority of requirements are related to the use of control devices (i.e., performance testing and parameter monitoring), and are not related to the existence of individual process vents.

In response to the request for a flow rate exemption such as that which was used in the HON, the EPA maintains that the definition of "continuous process vent" in subpart JJJ is consistent with the HON definition of "process vent" in this regard. Neither the HON process vent definition in §63.101 nor the subpart JJJ continuous process vent definition in §63.1312 contain a flow rate cutoff. The commenter may have been referring to the HON definition of "Group 1 process vent," which does have a 0.005 scmm flow rate cutoff. However, as discussed above, the process vent provisions for PET and polystyrene affected sources are based on the Polymer Manufacturing NSPS, and not the HON process vent provisions. Therefore, the flow rate cutoffs in the HON definition of "group 1 process vent" are not applicable to the process vent provisions for PET and polystyrene affected sources in subpart JJJ. Also, as discussed above for low-emitting vents, the commenter did not provide any data to support the request for a flow rate cutoff. In conclusion, no changes were made to the regulation in response to this comment.

Comment: Commenter VIIIa-D-03 stated that the requirements of §63.1318(c) extend performance testing requirements to all vents in a process section subject to §63.1316, whether or not the vent uses a control or recovery device. The commenter states that it is likely that process sections subject to §63.1316 will have vents with negligible emissions and/or vents not ducted to a control device. The commenter stated that in many cases these vents will have a TRE index value greater than 4.0. The commenter requested that language be added to §63.1318(c) to clarify that performance testing is not required for vents with a TRE index value greater than 4.0, regardless of whether or not those vents are part of a process section subject to §63.1316.

Response: Process vents subject to §§63.1316 through 63.1320 are not subject to the HON provisions, and the concepts of "group status" and TRE index value do not apply to these process vents. The provisions of §63.1318(c) are expressed as emission limits in the format of kilogram of HAP per megagram of polymer (PET/polystyrene) production. The commenter's concern that the provisions of "§63.1318(c) extend performance testing requirements to all vents in a process section subject to §63.1316, whether or not the vent used a control or recovery

device" is true when an owner or operator chooses to comply with the kilogram per megagram emission limits. The commenter is correct that performance testing is required to determine emission rates for all process vents within a process section subject to §63.1316 when the owner or operator chooses to comply with the kilogram per megagram emission limits. The EPA cannot allow owners or operators to omit emissions from any process vents from the compliance demonstration procedures. The final rule continues to require Method 18 tests to determine emissions as part of complying with the kilogram per megagram emission limits of §63.1316.

2.6 BATCH PROCESS VENTS

Batch Process Vents: Comments on Both Rules

Comment: Commenter VIII-D-04 stated that owners and operators should be allowed to determine the concentration of each organic compound containing halogen atoms at the recovery device or process discharge, for the purposes of determining the mass loading limit (e.g., under §63.488(h)). The commenter stated that the limit is a mass loading limit per vent (and not for combined vents), and that an owner or operator should not be penalized for collecting and reusing organic volatile organic compounds (VOC) by combining many process vents into a common recovery system.

Response: While §§63.488(h) and 63.1323(h) do not indicate where the halogenation status determination is to be performed, §§63.488(a)(2) and 63.1323(a)(2) specify that the location for making the batch vent group determination is at the exit of the batch unit operation.

The purpose of the halogenated vent provisions is to reduce the hydrogen halides that are created when halogenated organic compounds are routed to a combustion device. Therefore, the important location for determining whether a vent stream is halogenated is prior to the stream entering a combustion device. However, as noted above, the rules required the halogenation determination at the exit of the unit operation before any recovery, recapture, or combustion device are used to determine the group status. Therefore, any reduction in the mass emission rate of halogen atoms that occurs in a recovery or recapture device would not be taken into account. The EPA agrees with the commenter that this reduction should be considered. Therefore, in the final amendments, §§63.488(h)(1) and 63.1323(h)(1) have been amended to specify that the concentration of each organic compound containing halogen atoms be determined "at the exit of the last recovery or recapture device."

Comment: Commenter VIII-D-04 requested that the EPA edit §§63.487(a)(1)(ii) and 63.1322(a)(1)(ii) to allow halogenated batch front-end process vents to be routed to flares, if, as allowed under proposed §§63.487(c)(2) and 63.1322(c)(2), a halogen reduction device is used to reduce the halogen atom mass emission rate to less than 3,750 kg/yr.

Response: The EPA believes that the change discussed in the previous comment eliminates the concern raised by this commenter. As discussed in the previous response, §§63.488(h)(1) and 63.1323(h)(1) have been revised to specify that the halogenation status of a batch process vent is determined after recovery or recapture devices. Therefore, if a recovery or recapture device reduces the halogen atoms such that the vent stream would not be considered halogenated, then the stream could be routed to a flare.

2.7 BACK-END PROVISIONS (SUBPART U ONLY)

Comment: Commenter VIII-D-04 stated that in §63.493, several affected sources are exempted from the back-end process provisions, based on the fact that they produce only latex products, liquid rubber products, or products produced in a gas-phased reaction process. The commenter stated that an affected source may produce both rubber and latex products. In this case, the latex products should still be excluded from the back-end provisions.

Response: The EPA agrees that §63.493 does not address the applicability of the back-end process provisions to the production of latex products in the same affected source that also produces elastomer products for which the back-end process provisions do apply. Since the production of latex does not include the process unit operations (e.g., dewatering, extruding, drying, etc.) that the back-end process provisions are designed to cover, the EPA does not intend that the back-end process provisions apply to the production of any latex product. Therefore, the following sentence has been added to §63.493 in final amendments: "If latex or liquid rubber products are produced in an affected source that also produces another elastomer product, the provisions of §§63.484 through 63.500 do not apply to the back-end operations dedicated to the production of one or more latex products or to the back-end operations during the production of a latex product."

Comment: Commenter VIII-D-04 states that §63.494(a)(4) should apply to both new and existing affected sources, and that nitrile butadiene latex (NBL) and styrene butadiene latex (SBL) should be added to the group of products that are exempt from the back-end residual organic HAP limitations. The commenter pointed out that in the September 5, 1996 promulgated version of subpart U, the tables in the preamble to the rule (Tables 2 and 3) listed "no control" for NBL and SBL back-end process emissions (61 FR 46910 and 46911). This exemption is not indicated in the proposed amendments to subpart U, but the commenter believes that the exemption should apply to NBL and SBL.

Response: While §63.493 exempts affected sources producing latex products from all the back-end process provisions, the EPA agrees that it would be clearer if latex products are also mentioned in §63.494(a)(4). Therefore, §63.494(a)(4) of the final rule has been amended to add latex products, liquid rubber products, and products produced in a gas-phased reaction process to the list of processes to which back-end process operation residual organic HAP limitations do not apply.

Comment: Commenter VIII-D-04 requested that in either §63.498(d)(5)(i) or in table 6 of subpart U, the EPA state specifically what type of "hourly records" owners or operators are expected to keep to illustrate that monitors on flames are continuously operating and that a pilot flame is continuously present at all flares during batch emission episodes. The commenter asked whether the hourly record could be an instantaneous check once an hour, or if a record of continuous compliance must be available for every hour. If a record of continuous compliance must be kept for every hour, the commenter requested that the EPA provide some examples of types of acceptable records for verifying continuous compliance with the monitoring and operating requirements for flares.

Response: This comment pointed out a confusing cross-reference in the proposed amendments, where §63.498(d)(5)(i) refers to the recordkeeping requirements for flares, as they are listed in Table 6 of subpart U (Group 1 Batch Front-end Process Vents and Aggregated Streams — Monitoring, Recordkeeping, and Reporting Requirements). The correct reference should have been to Table 8 (Summary of Compliance Alternative Requirements for the Back-end Process Provisions), but since that table cross-references Table 3 of subpart G in the HON,

§63.498(d)(5)(i) has been amended in the final rule to reference Table 3 of 40 CFR part 63, subpart G, rather than Table 6 of subpart U.

This correction does not address, however, the commenter's concern regarding how an owner or operator can document that a flare was continuously operating over a particular hour. The back-end process vent monitoring provisions in §63.497(a)(2) specify that when a flare is used, a device capable of continuously detecting the presence of a pilot flame is required. Examples of such devices are thermocouples, an ultra-violet beam sensor, or an infrared sensor. Table 3 of subpart G states that hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour are required. The EPA believes that a measurement or determination once per hour that the flare is operating and that a pilot flame is present sufficiently indicates continuous compliance with the applicable provisions. Therefore, some type of measurement or determination that the flare is operating and that a pilot flame is present would need to be conducted once every hour. Any records of the measurement or determination that the flare is operating and that a pilot flame is present would be acceptable. There should be a record for each hourly measurement or determination. One example of a type of measurement is using a thermocouple to monitor the temperature. A level would be established that assures that the flare is operating and that a pilot flame is present. The temperature would then be measured and recorded once every hour.

Comment: Commenter VIII-D-04 pointed out that the subscripts in Equation 26 in §63.495(f) should be "mo" for "monthly," rather than "wk" for "weekly."

Response: The EPA appreciates the commenter's attention to detail, and has made the change in the final rule.

2.8 WASTEWATER PROVISIONS

Wastewater Provisions: Comments on Both Rules

Comment: Commenter VIIIa-D-03 was concerned that §§63.1330(c) and 63.501(b) implied that different lists of HAP are considered to be "organic HAP" for the purposes of the process wastewater versus the maintenance wastewater provisions in subparts U and JJJ. This concern arose out of the language in §§63.1330(c) and 63.501(b), which stated that when

§63.105 refers to "organic HAP," the definition of organic HAP in subpart JJJ or subpart U (respectively) would apply. The commenter recommended that §§63.1330(c) and 63.501(b) be made consistent with §§63.1330(b)(8) and 63.501(a)(10), by amending §§63.1330(c) and 63.501(b) to refer only to the organic HAP lists in subparts JJJ (Table 6, minus ethylene glycol) and U (Table 5), respectively.

Response: Given the misinterpretation of the language of §§63.1330(c) and 63.501(b) by this commenter, the EPA decided to amend these paragraphs, as well as §§63.1330(b)(8) and 63.501(a)(10) to clarify that the same compounds are subject to the process wastewater and maintenance wastewater requirements. In addition, the EPA believes that ethylene glycol, which is exempt from the process wastewater requirements in subpart JJJ via §63.1330(b)(8), should also be exempt from the maintenance wastewater requirements. Therefore, the EPA has made the changes to §63.1330(b)(8) and (c) and §63.501(a)(10) and (b) in the final amendments to subparts JJJ and U to make these clarifications.

Wastewater Provisions: Comments on Subpart U

Comment: Commenter VIII-D-04 requested that §63.501(a)(3) be revised to clarify that table 5 of subpart U applies, rather than table 9 of subpart G, for the purposes of the wastewater provisions in subpart U. The commenter acknowledged that the definitions of "wastewater" and "Group 1 wastewater" both make these distinctions, as does §63.501(a)(10), but stated that, since §63.501(a)(3) is one of the "exceptions" listed under §63.501(a), further clarification would be needed. The commenter suggested the following change to the second sentence in §63.501(a)(3):

> "Owners and operators of new affected sources, as defined in this subpart, shall comply with the requirements for existing sources in §§63.132 through 63.149, with the exceptions noted in 63.501(a)(4) through (a)(23)."

Response: The EPA agrees with the commenter's request. The final rule uses this suggestion, with a small alteration in wording.

2.9 EQUIPMENT LEAK PROVISIONS

Equipment Leak Provisions: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-02 described the use of pumps in ethylene glycol service for the manufacture of PET that are similar to those exempted for the manufacture of polystyrene in §63.1331(a)(1) (i.e., light liquid pumps and agitator seals that are designed to leak process fluid through the shaft sealing mechanisms for lubrication and cooling). The commenter stated that large expenditures would be required in order to incorporate a leakless seal design for these pumps in ethylene glycol service. The commenter explained that progressive cavity pumps are used to feed TPA slurried in ethylene glycol to the esterification reactors, and that these pumps have packing glands that need to pass approximately 1 gallon per day of fluid (e.g., ethylene glycol) for lubrication. The commenter stated that the 1 gallon per day of ethylene glycol that is leaked from these pump seals is caught by catch pans and is returned to the process on a daily basis The commenter provided details about the cost of replacing these seals versus the expected reduction in emissions that would be achieved if they were replaced. The commenter estimated that installing a leakless seal design would reduce emissions by 300 lb/yr at a cost effectiveness of $166,000 per ton of HAP reduced The commenter requested that the EPA provide an exemption for pumps in ethylene glycol service as was done in §63.1331(a)(1) for light liquid pumps and agitator seals used to manufacture polystyrene.

Response: Since no amendments were proposed to the paragraph referred to by the commenter, §63.1331(a)(1), in the March 9, 1999 action, the EPA was not seeking comments on these provisions; therefore, they were not open to comments. However, following promulgation of subpart JJJ on September 12, 1996, two groups petitioned the EPA to reconsider the equipment leak standards contained in the promulgated rule as they pertained to PET production facilities. The issue raised by the commenter was also raised by these petitioners. On June 8, 1999 (64 FR 30456), the EPA published a proposed denial of these petitions and requested comments on the new equipment leak analysis. The EPA will address issues related to PET equipment leaks raised by commenters on the proposed petition denial in a future action.

2.10 GENERAL RECORDKEEPING AND REPORTING REQUIREMENTS

General Recordkeeping and Reporting Requirements: Comments on Both Rules

Comment: Commenter VIIIa-D-03 disagreed with the requirements in §§63.1335(b)(1) and 63.506(b)(1) which stated that the owner or operator must demonstrate to the Administrator, through a precompliance report or a supplement to the precompliance report, that a monitor would be damaged during a start-up, shutdown, or malfunction, before the owner or operator could turn off that monitor during the start-up, shutdown, or malfunction. The commenter stated that monitoring data collected during a start-up, shutdown, or malfunction would not be relevant to the compliance status of the source, and that this requirement imposed an unnecessary recordkeeping and reporting burden on industry. In addition, commenter VIIIa-D-02 requested that an additional criteria for not having to collect monitoring data during periods of start-ups, shutdowns, or malfunctions. In addition to the above-mentioned criteria (that the owner or operator must demonstrate to the Administrator that a monitor would be damaged during a start-up, shutdown, or malfunction), commenter VIIIa-D-02 stated that the owner or operator should not have to collect monitoring data "during periods of start-up, shutdown, malfunction, and non-operation when such data would be invalid in terms of representing emission rates."

Response: The final procedures in §§63.506(b)(1) and 63.1335(b)(1) continue to require that the owner or operator first submit a precompliance report or "supplement to a precompliance report," demonstrating to the Administrator that the monitoring system would be damaged or destroyed if not shut off during a start-up, shutdown, or malfunction. This requirement gives the Administrator the opportunity to object to the inclusion of such a provision in the source's start-up, shutdown, and malfunction plan, if such a provision seems to be unwarranted or insufficiently supported in the precompliance report or supplement to the precompliance report. As stated in the preamble to the proposed amendments (64 FR 11572), it is the EPA's position that requiring monitoring during start-up, shutdown, and malfunction periods will provide the EPA with more information concerning whether or not start-up, shutdown, and malfunction plans were followed, and will provide the EPA with valuable information for assessing the adequacy of a source's start-up, shutdown, and malfunction plan for future situations. These changes strike a balance between the EPA's decision to require that monitoring data be collected at all relevant times and industry's concern that valuable monitoring equipment could be damaged during a

start-up, shutdown, or malfunction. The final requirements in §§63.1335(b)(1) and 63.506(b)(1) provide protection for monitoring equipment during periods of start-up, shutdown, or malfunction, while providing the EPA with assurance that monitoring equipment is not being "shut off" indiscriminately. Similarly, §§63.1335(b)(1) and 63.506(b)(1) continue to require that monitoring data be collected, regardless of whether or not those data would be valid in terms of representing emissions rates, for the same reasons described above.

Comment: Commenter VIIIa-D-02 requested that the term "excess emissions," as used in §§63.1335(b)(1)(i)(A) and 63.506(b)(1)(i)(A) and defined in §§63.1310(j)(4) and 63.480(j)(4), be defined more precisely. The commenter stated that "excess emissions" could be defined as "emissions greater than those allowed by the emissions limitation which would apply during operational periods other than start-up, shutdown, and malfunction," or that this phrase ("emissions greater than those allowed by the emissions limitation which would apply during operational periods other than start-up, shutdown, or malfunction") replace the term "excess emissions" in §§63.1335(b)(1)(i)(A) and 63.506(b)(1)(i)(A) in the final rule, since the term "excess emissions" triggers recordkeeping requirements under §§63.1335(b)(1)(i)(A) and 63.506(b)(1)(i)(A) in the proposed rule.

Response: The EPA agrees that the suggested edit to the definition of "excess emissions" in §§63.480(j)(4) and §63.1310(j)(4) is warranted. Therefore, in the final amendments, these paragraphs state that excess emissions are "emissions greater than those allowed by the emissions limitation which would apply during operational periods other than start-up, shutdown, and malfunction."

Comment: Commenter VIIIa-D-03 stated that it was overly burdensome to require that all of the information recorded under §§63.1335(b)(1)(i)(A) and (B) and 63.506(b)(1)(i)(A) and (B) be reported with reports of start-ups, shutdowns, or malfunctions, as required under §§63.1335(b)(1)(ii) and 63.506(b)(1)(ii). The commenter stated that this requirement was more burdensome than, and inconsistent with, the reporting requirements in both the HON and the General Provisions [§63.10(d)(5)(i)].

Response: The EPA agrees that reporting the information specified in §§63.1335(b)(1)(i)(A) and (B) and 63.506(b)(1)(i)(A) and (B) in a start-up, shutdown, and

malfunction report is more burdensome than the requirements in either the HON or the General Provisions. Upon additional consideration, the EPA concluded that, while it is important that the information specified in §§63.1335(b)(1)(i)(A) and (B) and 63.506(b)(1)(i)(A) and (B) be recorded, it is not necessary that it be reported in order to make a determination whether the source complied with the start-up, shutdown, or malfunction plan. Therefore, §63.506(b)(1)(ii) and §63.1335(b)(1)(ii) have been revised to specify that the reports shall include the information specified in §63.10(d)(5)(i).

Comment: Commenter VIII-D-04 disagrees with the requirement (found in §§63.506(b)(1)(ii) and 63.1335(b)(1)(ii)) that the semi-annual start-up, shutdown, and malfunction report must include the name, title, and signature of the owner or operator, or another responsible official, certifying the accuracy of the start-up, shutdown, and malfunction report.

Response: The requirement that the commenter is remarking upon was contained in the promulgated rules, which were published in September 1996. The EPA did not request comments on this requirement. This requirement is also contained in §63.10(d)(5)(i) of the General Provisions for part 63. The EPA considers this verification of the accuracy of each semi-annual start-up, shutdown, and malfunction report to be indispensable, and has not changed this requirement in the final amendments to the rules.

Comment: Commenter VIII-D-04 disagreed with the requirement in §§63.506(e)(3)(i) and 63.1335(e)(3)(i) to submit precompliance reports 12 months prior to the compliance date or with the application for approval of construction or reconstruction for new affected sources. The commenter acknowledges that supplements to precompliance reports can be submitted at a later date if an initial precompliance report was developed and submitted according to §§63.506(e)(3)(ix)(A) and 63.1335(e)(3)(ix)(A), but states that in "many large projects all the details related to start-up, shutdown, and malfunctions; monitoring equipment; alternative control options; parametric monitoring; and alternative monitoring have not been developed during the application phase of the project."

Response: The language proposed in §§63.506(e)(3)(ix)(B) and 63.1335(e)(3)(ix)(B) was expressly created to allow the submittal of new requests or information, even if the initial report did not include information related to the new information, in the instances listed in §63.506(e)(3)(ix)(B), which cover all of the examples listed by the commenter (as quoted above). Therefore, in the final rule, the EPA has not changed the precompliance report requirements in response to this comment. Please note, however, that due to the changes in the compliance dates discussed in section 2.2, the date that the precompliance report is due has changed. precompliance reports are now due six months before the compliance date. This provides another opportunity for owners or operators to submit a precompliance report.

Comment: Commenter VIII-D-04 stated that if the EPA intended, according to §§63.480(i)(5) and 63.1310(i)(5), that only equipment configurations listed in the notification of compliance status report could be exempt from being considered "process changes," then §§63.506(e)(5)(i) and 63.1335(e)(5)(i) should state that all equipment configurations need to be listed in the notification of compliance status report. The commenter suggested that the EPA remove the phrase "documented in the Notification of Compliance Status Report required by §63.506(e)(5)(i)" [or §63.1335(e)(5)(i)] from the language in §§63.480(i)(5) and 63.1310(i)(5).

Response: The EPA agrees that the notification of compliance status report provisions in §63.506(e)(5) and §63.1335(e)(5) do not specify that equipment configurations and operating conditions be documented. The intent of the language in §§63.480(i)(5) and 63.1310(i)(5) was that minor process modifications not be considered process changes. Therefore, §§63.480(i)(5) and 63.1310(i)(5) have been changed as follows:

> . . . For purposes of paragraph (i) of this section, process changes do not include: ~~Process~~ process upsets, unintentional process changes, and changes that do not alter ~~are within~~ the equipment configuration and operating conditions ~~documented in the Notification of Compliance Status report required by §6..506(e)(5)~~.

General Recordkeeping and Reporting Requirements: Comments on Subpart JJJ

Comment: Commenter VIIIa-D-03 stated that these rules should not require a start-up, shutdown, or malfunction plan for emission points that are complying with a subpart JJJ mass emission per mass product limits (i.e., §63.1316) that would exhibit a TRE greater than 1.0 if

TRE were applied. The commenter supported this recommendation by citing the proposed requirements in §§63.1335(b)(1)(i)(C) and 63.506(b)(1)(i)(C), which indicate that records are not required for Group 2 emission points during a start-up, shutdown, or malfunction, unless the Group 2 emission point is included in an emissions average. The commenter pointed out that there are numerous emission points with a TRE greater than 1.0, and that the proposed requirements in §§63.1335(b)(1)(i)(A) and (B) and 63.506(b)(1)(i)(A) and (B) would require industry to utilize considerable resources to develop start-up, shutdown, and malfunction plans for emission points for which records would not be required to be kept, and that would "not have significant impact on human health and the environment even in the event of startups, shutdowns and malfunctions."

The commenter suggested that the EPA add the following language (presumably at the end of §§63.1335(b)(1)(i) and 63.506(b)(1)(i)) to the final rules:

> Records specified in paragraphs (b)(1)(i)(A) through (b)(1)(i)(B) of this section are not required if they pertain solely to emission points in a regulated section that would otherwise be considered Group 2 based on engineering calculations.

Response: As discussed in section 2.5 of this document, process vents subject to the mass emission per mass product limits are not subject to the HON provisions, and, therefore, the concepts of Group 2 and TRE do not apply for these process vents. These provisions require that the emissions from all process vents in each specified section (i.e., material recovery section, polymerization reaction section, and raw materials preparation section) of the process unit be considered in determining compliance with the applicable limitation. Therefore, the EPA believes that it is appropriate that the startup, shutdown, and malfunction plan be consistent with the emission limitation in this regard. Therefore, no change was made in response to this comment.

2.11 THE TABLES

The Tables: Comments on Both Rules

Comment: Commenter VIII-D-04 pointed out that the "yes" in Table 1 of subparts U and JJJ for whether or not §63.1(a)(10) (which states that all time periods will be measured in

"calendar days," even if the word "calendar" is absent, unless otherwise noted in another applicable requirement) applies to subparts U and JJJ seems to contradict the provisions in §§63.502(a)(2) and 63.1334(a)(2), which allow the owner or operator to define their own "operating day" in their notification of compliance status report.

Response: The EPA does intend for the term "day" to mean "calendar days," whether or not the term "calendar" is absent, unless other applicable requirements, such as those found in §§63.502(a)(2) and 63.1334(a)(2), say otherwise. Therefore, the EPA has not changed this portion of Table 1 in subpart U or JJJ, in the final rule.

Comment: Commenter VIIIa-D-03 suggested that the EPA revise Table 1 in subpart U and Table 1 in subpart JJJ, to clearly state that the immediate start-up, shutdown, and malfunction reports required under §63.10(d)(5)(ii) do not apply to Polymers and Resins I and IV facilities, pointing out that the EPA recently amended the HON in a similar manner (64 FR 20189, April 26, 1999).

Response: The EPA agrees with the commenter and has changed Table 1 in the final amendments to subparts U and JJJ, by adding an extra row for §63.10(d)(5)(ii), saying that §63.10(d)(5)(ii) does not apply to subpart U (or JJJ), and by amending the row for §63.10(d)(5), so that it applies to §63.10(d)(5)(i) only.

The Tables: Comments on Subpart U

Comment: Commenter VIII-D-04 states that hexane, toluene, and xylenes should not be checked for SBL and SBRE in Table 5 (Known HAP Emitted from the Production of Elastomer Products) of subpart U.

Response: The EPA agrees that no information is available that suggests hexane, toluene, or xylenes are used and emitted from affected sources that produce SBL or SBRE; however, these HAP were inadvertently checked in Table 5 previously. In the final amendments, the EPA has deleted the checks for these pollutants for SBL and SBRE.

In addition, while re-examining the HAP listed in Table 5 of subpart U, the EPA realized that carbon disulfide was not listed for SBRE. Clearly, the EPA intended that carbon disulfide be an organic HAP subject to control under subpart U, as §63.500 is dedicated to carbon disulfide

emissions from SBRE producers. For this reason, Table 5 of subpart U has also been revised to include carbon disulfide, which is checked for SBRE.

The Tables: Comments on Subpart JJJ

Comment: Commenter VIII-D-05/VIIIa-D-04 states that 1,3-butadiene should not be checked for ASA/AMSAN in table 6 (Known HAP Emitted from the Production of Thermoplastic Products) of subpart JJJ.

Response: This HAP (1,3-butadiene) was mistakenly checked in Table 6 for ASA/AMSAN in the September 12, 1996 final rule. In the promulgated amendments to subpart JJJ, this error has been corrected.

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15 SUPPLEMENTARY NOTES

16 ABSTRACT

This document contains a summary of public comments received on amendments to NESHAP for Polymer and Resin (Groups I and IV) (40 CFR 63, subparts U and JJJ), which were proposed on March 9, 1999 (64 FR 11560). This document also provides the EPA's response to each comment, and outlines the changes made to these regulations in response to public comments.

17 KEY WORDS AND DOCUMENT ANALYSIS

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