

serviceable wheel assembly and bearings, in accordance with the airplane maintenance manual.

(b) For airplanes on which Jetstream Modification 35296A (reference Jetstream Service Bulletin ATP-32-51-35296A) has been installed: Accomplish paragraphs (b)(1) and (b)(2) of this AD.

(1) Within 24 hours after the last inspection performed in accordance with paragraph (a)(1) of this AD, perform a cleaning and a detailed visual inspection to detect damage (including blistering or flaking of the paint) or discoloration of the wheel hub caps and of the outer side of the inflation valve side hubs on the MLG wheels, in accordance with paragraph 2.Part B.(2) of the Accomplishment Instructions of Jetstream Service Bulletin ATP-32-48, Revision 3, dated July 15, 1994. Thereafter, prior to the first flight of each day, repeat this cleaning and inspection. The cleaning and inspection must be performed by appropriately certificated maintenance personnel as specified in section 43.3 of the Federal Aviation Regulations (14 CFR 43.3). If any damage or discoloration is found during any inspection required by this paragraph, prior to further flight, replace the existing MLG wheel assembly and bearings with a serviceable wheel assembly and bearings, in accordance with the airplane maintenance manual.

(2) Following accomplishment of the initial inspection required by paragraph (b)(1) of this AD, once a day, perform an additional intermediate detailed visual inspection to detect damage (including blistering or flaking of the paint) or heat discoloration of the wheel hub cap and the outer side of each inflation valve side hub on the MLG wheels, in accordance with paragraph 2.Part B.(3) of the Accomplishment Instructions of Jetstream Service Bulletin ATP-32-48, Revision 3, dated July 15, 1994. The once-a-day inspections must be performed by appropriately certificated maintenance personnel, as specified in 14 CFR 43.3. If any damage or discoloration is found during any inspection required by this paragraph, prior to further flight, replace the existing MLG wheel assembly and bearings with a serviceable wheel assembly and bearings, in accordance with the airplane maintenance manual.

(c) Within 10 months after the effective date of this AD, modify the MLG, in accordance with Jetstream Service Bulletin ATP-32-51-35296A (including Erratum No. 1), dated May 12, 1994; and Jetstream Service Bulletin ATP-32-53-35294A, dated July 18, 1994, or Revision 2, dated January 13, 1995. Accomplishment of these modifications constitutes terminating action for the daily and pre-flight inspection requirements of this AD.

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Standardization Branch, ANM-113, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standardization Branch, ANM-113.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Standardization Branch, ANM-113.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished. Issued in Renton, Washington, on June 6, 1995.

**Darrell M. Pederson,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 95-14316 Filed 6-9-95; 8:45 am]

BILLING CODE 4910-13-U

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 63

[AD-FRL-5217-4]

RIN 2060-AD-56

### National Emission Standards for Hazardous Air Pollutants for Butyl Rubber Production, Epichlorohydrin Elastomers Production, Ethylene-Propylene Elastomers Production, Hypalon™ Production, Neoprene Production, Nitrile Butadiene Rubber Production, Polybutadiene Rubber Production, Polysulfide Rubber Production, and Styrene-Butadiene Rubber and Latex Production (Group 1 Polymers and Resins)

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule and notice of public hearing.

**SUMMARY:** The proposed rule would reduce emissions of hazardous air pollutants (HAP) from existing and new facilities that manufacture one or more of the following elastomers: Butyl rubber (BR), epichlorohydrin elastomers (EPI), ethylene-propylene elastomers (EPR), hypalon® (HYP), neoprene (NEO), nitrile butadiene rubber (NBR), polybutadiene rubber (PBR), polysulfide rubber (PSR), and styrene-butadiene rubber and latex (SBR). The EPA is in the process of developing standards for a wide range of types of polymers and resin production facilities. The materials covered by this proposed rule are elastomers used to make a variety of synthetic rubber products including tires, hoses, belts, footwear, adhesives, caulks, wire insulation, seals, floor tiles, and latexes. In the production of elastomers, a variety of HAP are used as monomers or process solvents. The HAP emitted by the facilities covered by this proposed rule include n-hexane,

styrene, 1,3-butadiene, acrylonitrile, methyl chloride, hydrogen chloride, carbon tetrachloride, chloroprene, and toluene. Some of these pollutants are considered to be probable human carcinogens when inhaled and all can cause toxic effects following exposure. The proposed rule is estimated to reduce emissions of these pollutants by over 6,500 Mg/yr. The emission reductions achieved by these standards, when combined with the emission reductions achieved by other similar standards, will achieve the primary goal of the Clean Air Act, which is to "enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."

The proposed rule implements section 112(d) of the Clean Air Act Amendments of 1990 (1990 Amendments), which requires the Administrator to regulate emissions of HAP listed in section 112(b) of the 1990 Amendments. The intent of this rule is to protect the public by requiring the maximum degree of reduction in emissions of HAP from new and existing major sources, taking into consideration the cost of achieving such emission reduction, and any nonair quality, health and environmental impacts, and energy requirements.

**DATES:** *Comments.* Comments must be received on or before August 11, 1995.

*Public Hearing.* If anyone contacts the EPA requesting to speak at a public hearing by July 3, 1995, a public hearing will be held on July 12, 1995 beginning at 10 a.m. Persons interested in attending the hearing should call Ms. Marguerite Thweatt at (919) 541-5607 to verify that a hearing will be held.

*Request to Speak at Hearing.* Persons wishing to present oral testimony must contact the EPA by June 27, 1995 by contacting Ms. Marguerite Thweatt, Organic Chemicals Group, (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5607.

**ADDRESSES:** *Comments.* Comments should be submitted (in duplicate, if possible) to: Air Docket Section (LE-131), Attention: Docket No. A-92-44, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The EPA requests that a separate copy also be sent to the contact person listed below. The public hearing, if required, will be held at the EPA's Office of Administration Auditorium, Research Triangle Park, North Carolina.

The docket is located at the above address in room M-1500, Waterside Mall (ground floor), and may be

inspected from 8 a.m. to 4 p.m., Monday through Friday; telephone number (202) 260-7548. A reasonable fee may be charged for copying docket materials.

**FOR FURTHER INFORMATION CONTACT:**

For information concerning the proposed rule, contact Mr. Leslie Evans at (919) 541-5410, Organic Chemicals Group, Emission Standards Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

**SUPPLEMENTARY INFORMATION:** The proposed regulatory text and the rationale for selection of the different components of the standard are not included in this **Federal Register** notice. The regulatory text is available in Docket No. A-92-44, or from the EPA contact person designated in this notice. The proposed regulatory language is also available on the Technology Transfer Network (TTN) on the EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a telephone call. Dial (919) 541-5742 for up to a 14,400 bps modem. If more information on TTN is needed, call the HELP line at (919) 541-5384.

In addition to the proposed regulatory text, the Basis and Purpose Document, which contains the rationale for the various components of the standard, is available in the docket and on the TTN. This document is entitled Hazardous Air Pollutant emissions from Process Units in the Elastomer Manufacturing Industry—Basis and Purpose Document for Proposed Standards, May 1995, and has been assigned document number EPA-453-R-95-006a.

Other materials related to this rulemaking are available for review in the docket. Some of these memoranda have been compiled into a single document, the Supplementary Information Document (SID), to allow interested parties more convenient access to the information. The SID is available in the docket (Docket No. A-92-44, Category II-A), and from the EPA Library by calling (919) 541-2777. The document is entitled Hazardous Air Pollutant Emissions from Process Units in the Elastomer Manufacturing Industry—Supplementary Information Document for Proposed Standards, May 1995, and has been assigned document number EPA-453/R-95-005a.

In some cases, technical analyses conducted during the development of

the Hazardous Organic NESHAP, or HON, were indirectly relied upon in the development of today's proposed rule. The HON was promulgated on April 22, 1994 (59 FR 19402), and supporting information for the HON is available in the Air Dockets A-90-19 through A-90-23.

The information presented in this preamble is organized as follows:

- I. List of Source Categories
- II. A Summary of Considerations Made in Developing This Rule
- III. Authority for National Emission Standards for Hazardous Air Pollutants (NESHAP) Decision Process
  - A. Source of Authority for NESHAP Development
  - B. Criteria for Development of NESHAP
- IV. Summary of Proposed Rule
  - A. Source Categories to be Regulated
  - B. Relationship to Other Rules
  - C. Pollutants to be Regulated
  - D. Affected Emission Points
  - E. Format of the Standards
  - F. Proposed Standards
  - G. Recordkeeping and Reporting Requirements
- V. Discussion of Major Issues
- VI. Summary of Environmental, Energy, Cost, and Economic Impacts
  - A. Facilities Affected by these NESHAP
  - B. Primary Air Impacts
  - C. Other Environmental Impacts
  - D. Energy Impacts
  - E. Cost Impacts
  - F. Economic Impacts
- VII. Administrative Requirements
  - A. Public Hearing
  - B. Docket
  - C. Executive Order 12866
  - D. Enhancing the Intergovernmental Partnership Under Executive Order 12875
  - E. Paperwork Reduction Act
  - F. Regulatory Flexibility Act
  - G. Miscellaneous

**I. List of Source Categories**

Section 112 of the 1990 Amendments requires that the EPA evaluate and control emissions of HAP. The control of HAP is achieved through promulgation of emission standards under sections 112(d) and 112(f) and work practice and equipment standards under section 112(h) for categories of sources that emit HAP. On July 16, 1992, the EPA published an initial list of major and area source categories to be regulated, as required under section 112(c) of the 1990 amendments. Included on that list were major sources emitting HAP from the production of BR, EPI, EPR, HYP, NEO, NBR, PBR, PSR, and SBR. These source categories are combined under today's proposed rule because of similarities in process

operations, emission characteristics, and control device applicability and costs. For the purpose of this notice, these nine source categories are collectively referred to as elastomer source categories.

The EPA identified a total of 35 plant sites producing one or more of the elastomers listed. At eight plant sites, elastomers from two or more subcategories are produced. For example, at one plant site there is one process producing EPR and another process producing PBR.

All of the facilities considered in the analysis supporting today's proposed rule are believed to be major sources according to the 1990 Amendments criterion of having the potential to emit 10 tons per year of any one HAP or 25 tons per year of combined HAP. The proposed rule would apply to all major sources that produce any of the nine types of elastomers identified in this notice. Area sources would not be subject to this proposed rule.

In developing the background information to support the proposed rule, the EPA chose to subcategorize three of the nine source categories for purposes of analyzing the maximum achievable control technology (MACT) floors and regulatory alternatives. A fourth subcategory was created by combining two processes that had virtually identical facilities, processes, and HAP emissions. Subcategorization was necessary to reflect major variations in production methods, raw material usage and/or HAP emissions that potentially affect the applicability of controls. Although the resulting level of the standard was identical for many subcategories, note that all technical analyses were conducted on a subcategory basis to determine the appropriate level of the standard. Table 1 summarizes the subcategories developed.

**II. A Summary of Considerations Made in Developing This Rule**

The Clean Air Act was created, in part, "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population" [the ACT, § 101(b)(1)]. As such, this proposed regulation would protect the public health by reducing emissions of HAP from elastomer production.

TABLE 1.—SUBCATEGORIZATION OF GROUP I POLYMERS

Source category	Subcategory	Number of sources in subcategory
Butyl Rubber .....	Butyl Rubber (BR) .....	1
	Halobutyl Rubber (HBR) .....	1
Epichlorohydrin Rubber (EPI) .....	None .....	1
Ethylene Propylene Rubber (EPR) .....	None .....	5
Hypalon® (HYP) .....	None .....	1
Neoprene (NEO) .....	None .....	3
Nitrile Butadiene Rubber .....	Nitrile Butadiene Rubber by Emulsion (NBR) .....	4
	Nitrile Butadiene Latex (NBL) .....	3
Polysulfide Rubber (PSR) .....	None .....	1
Polybutadiene Rubber .....	Polybutadiene Rubber and Styrene Butadiene Rubber by Solution (PBR/SBRS) .....	5
	Styrene Butadiene Rubber by Emulsion (SBRE) .....	4
Styrene Butadiene Rubber .....	Styrene Butadiene Latex (SBL) .....	15

Pollutants emitted by Polymer and Resin I sources that are listed in Section 112(b)(1) include n-hexane, styrene, 1,3-butadiene, acrylonitrile, methyl chloride, carbon tetrachloride, chloroprene, and toluene. Some of these pollutants are considered to be probable human carcinogens when inhaled, and all can cause reversible and irreversible toxic effects following exposure. These effects include respiratory and skin irritation, effects upon the eye, various systemic effects including effects upon the liver, kidney, heart and circulatory systems, neurotoxic effects, and in extreme cases, death.

These effects vary in severity based on the level and length of exposure and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect human variability such as genetics, age, health status (e.g., presence of pre-existing disease) and lifestyle. The EPA does not have sufficient detailed data to conduct an intensive analysis to determine the actual population exposures to the HAP and resulting health effects around these facilities. This rule is technology-based; i.e., based on maximum achievable control technology. In addition, it is not a "significant" rule as defined by Executive Order 12866, and a benefits analysis is not required. Considering these factors, the EPA chose not to expend the resources required to collect additional data and conduct an intensive health impacts analysis. Therefore, the EPA does not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the proposed standard will substantially reduce emissions and

exposures to the level achievable with MACT.

Due to the volatility and relatively low potential for bioaccumulation of these pollutants, air emissions are not expected to deposit on land or water and cause subsequent adverse health or ecosystem effects.

The alternatives considered in the development of this regulation, including those alternatives selected as standards for new and existing elastomer sources, are based on process and emissions data received from every existing elastomer facility known to be in operation at the time of the initial data collection. The EPA met with industry several times to discuss this data. In addition, facilities and State regulatory authorities had the opportunity to comment on draft versions of the regulation and to provide additional information. Several facilities did provide comments; these comments were considered, and in some cases, today's proposed standards reflect these comments. Of major concern to industry were the reporting and recordkeeping burden and the requirements for wastewater control.

The proposed standards give existing facilities 3 years from the date of promulgation to comply. This is the maximum amount of time allowed under the Clean Air Act. New sources are required to comply with the standard upon start-up. The EPA sees no reason why new facilities would not be able to comply with the requirements of the standards upon startup. The number of existing sources affected by this rule is less than 50; therefore, the EPA does not believe that required retrofits or other actions cannot be achieved in the time frame allotted.

Included in the proposed rule are methods for determining initial

compliance as well as monitoring, recordkeeping, and reporting requirements. All of these components are necessary to ensure that sources will comply with the standards both initially and over time. However, the EPA has made every effort to simplify the requirements in the rule. The Agency has also attempted to maintain consistency with existing regulations by either incorporating text from existing regulations or referencing the application sections, depending on which method would be least confusing for a given situation.

As described in the Basis and Purpose document, regulatory alternatives were considered that included a combination of requirements equal to, and above, the MACT floor. Cost-effectiveness was a factor considered in evaluating options above the floor; in cases where options more stringent than the floor were selected, they were judged to have a reasonable cost effectiveness. For EPR, PBR/SBR (by solution), and SBR (by emulsion) the estimated cost effectiveness was found to be relatively high at the MACT floor level due to the requirements for process back-end operations. However, the back-end provisions of the regulation contain several options for compliance that will allow facilities to select the most cost-effective option based on facility-specific considerations.

Representatives from other interested EPA offices and programs, as well as representatives from State regulatory agencies, are included in the regulatory development process as members of the Work Group. The Work Group is involved in the regulatory development process, and must review and concur with the regulation before proposal and promulgation. Therefore, the EPA believes that the implications to other EPA offices and programs have been

adequately considered during the development of these standards.

### III. Authority for National Emission Standards for Hazardous Air Pollutants (NESHAP) Decision Process

#### A. Source of Authority for NESHAP Development

Section 112 of the 1990 Amendments gives the EPA the authority to establish national standards to reduce air emissions from sources that emit one or more HAP. Section 112(b) contains a list of HAP to be regulated by NESHAP. Section 112(c) directs the EPA to use this pollutant list to develop and publish a list of source categories for which NESHAP will be developed. The EPA must list all known source categories and subcategories of "major sources" (defined below) that emit one or more of the listed HAP. A major source is defined in section 112(a) as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit in the aggregate, considering controls, 10 tons per year or more of any one HAP or 25 tons per year or more of any combination of HAP. This list of source categories was published in the **Federal Register** on July 16, 1992 (57 FR 31576) and includes BR, EPI, EPR, HYP, NEO, NBR, PBR, PSR, and SBR.

Sources with a potential to emit at or greater than major source levels shall abide by the provisions of this rule unless they accept and comply with federally enforceable limitations on that potential which reduce their potential to emit to less than major source levels. The most common mechanisms for ensuring that these limitations are federally enforceable are Title V, State Implementation Plan (SIP), Prevention of Significant Deterioration (PSD), or New Source Review (NSR) permits. The Agency is currently reviewing what other mechanisms may be available.

#### B. Criteria for Development of NESHAP

The NESHAP are to be developed to control HAP emissions from both new and existing sources according to the statutory directives set out in section 112(d) of the 1990 Amendments. The statute requires the standards to reflect the maximum degree of reduction in emissions of HAP that is achievable for new or existing sources. This control level is referred to as MACT. When the selection of MACT considers control levels more stringent than the MACT floor (described below), its selection must reflect consideration of the cost of achieving the emission reduction, any non-air quality, health, and

environmental impacts, and energy requirements.

The MACT floor is the least stringent level allowed for MACT standards. For new sources, the standards for a source category or subcategory "shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator" (section 112(d)(3)). Existing source standards shall be no less stringent than the average emission limitation achieved by the best performing 12 percent of the existing sources for categories and subcategories with 30 or more sources or the average emission limitation achieved by the best performing 5 sources for categories or subcategories with fewer than 30 sources (section 112(d)(3)). These two minimum levels of control define the MACT floor for new and existing sources.

### IV. Summary of Proposed Standards

#### A. Source Categories To Be Regulated

Today's proposed standards would regulate HAP emissions from facilities in one of the 12 elastomer subcategories presented in Table 1, provided that a facility is a major source or is located at a plant site that is a major source. For the proposed rule, an affected source is defined as one of the following:

- All HAP emission points at a facility producing butyl rubber that are associated with butyl rubber production,
- All HAP emission points at a facility producing epichlorohydrin elastomer that are associated with epichlorohydrin elastomer production,
- All HAP emission points at a facility producing ethylene propylene rubber that are associated with ethylene propylene rubber production,
- All HAP emission points at a facility producing halobutyl rubber that are associated with halobutyl rubber production,
- All HAP emission points at a facility producing Hypalon™ that are associated with Hypalon™ production,
- All HAP emission points at a facility producing neoprene that are associated with neoprene production,
- All HAP emission points at a facility producing nitrile butadiene latex that are associated with nitrile butadiene latex production,
- All HAP emission points at a facility producing nitrile butadiene rubber that are associated with nitrile butadiene rubber production,
- All HAP emission points at a facility producing polybutadiene rubber and/or styrene butadiene rubber using a solution process that are associated with production of polybutadiene rubber and/or styrene butadiene rubber using a solution process,
- All HAP emission points at a facility producing polysulfide rubber that are associated with polysulfide production,

- All HAP emission points at a facility producing styrene butadiene latex that are associated with styrene butadiene latex production, and

- All HAP emission points at a facility producing styrene butadiene rubber using an emulsion process that are associated with styrene butadiene rubber production using an emulsion process.

In addition, if a facility produces elastomer products from more than one subcategory in the same equipment, then that facility is a single affected source.

The EPA is aware of some polymeric resin and copolymer products that are manufactured using similar chemicals and processes that are in some ways similar to the processes used in the manufacture of the elastomers covered by today's proposed rule. Several styrene butadiene, non-elastomer, resins and copolymers are included in this group. The EPA does not intend for today's proposed regulation to cover the production of these materials, which are often high conversion, block copolymers, with different end uses from the elastomers. However, the development of specific criteria to distinguish between elastomers and resins/copolymers has proven to be difficult. Therefore, the EPA is requesting comments on methods to clearly make this distinction.

#### B. Relationship to Other Rules

Sources subject to the proposed rule are also subject to other existing rules. In some cases, the proposed rule supersedes existing rules and affected sources are no longer required to comply with the existing rule. In other cases, there is no conflict between the existing rule and the proposed rule, and in these cases, the affected source must comply with both rules.

Sources subject to the proposed rule and subject to the NESHAP for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks (40 CFR part 63, subpart I) are required to continue to comply with subpart I until the compliance date of the proposed rule. After the compliance date of the proposed rule, compliance with the proposed rule will constitute compliance with subpart I.

Sources subject to the proposed rule may have storage vessels subject to the NSPS for Volatile Organic Liquid Storage Vessels (40 CFR part 60, subpart Kb). After the compliance date for the proposed rule, such storage vessels are only subject to the proposed rule and are no longer required to comply with subpart Kb.

Sources subject to the proposed rule may have cooling towers subject to the

NESHAP for Industrial Cooling Towers (40 CFR part 63, subpart Q). There is no conflict between the requirements of subpart Q and the proposed rule. Therefore, sources subject to both rules must comply with both rules.

#### C. Pollutants To Be Regulated

The source categories covered by the proposed rule emit a variety of HAP. The most significant emissions are of the following HAP: n-hexane, styrene, 1,3-butadiene, acrylonitrile, methyl chloride, hydrogen chloride, carbon tetrachloride, chloroprene, and toluene. Today's proposed standards would regulate emissions of these compounds, as well as all other HAP that are emitted.

#### D. Affected Emission Points

Emissions from the following types of emission points (i.e., emission source types) are being covered by the proposed rule: Storage vessels, "front-end" process vents, process "back-end" operations, equipment leaks, and wastewater operations. The process "front-end" includes pre-polymerization, reaction, stripping, and material recovery operations; and the process "back-end" includes all operations after stripping (predominately drying and finishing).

#### E. Format of the Standards

As discussed in more detail in Section IV.F, Proposed Standards, the Hazardous Organic NESHAP (HON) (subparts F, G, and H of 40 CFR part 63) and the Batch Processes Alternative Control Techniques (ACT) document (EPA 453/R-93-017, November 1993) provided a basis for selection of the proposed formats. In most instances, the format of today's proposed standards is the same as those found in the HON and Batch Processes ACT. The following paragraphs summarize the selected formats, including those that are different from the HON and Batch Processes ACT. The formats and their selection are discussed in more detail in the Basis and Purpose Document for this proposed regulation.

For storage vessels, the format of today's proposed standards is dependent on the method selected to comply with the standards. If tank improvements (e.g., internal or external floating roofs with proper seals and fittings) are selected, the format is a combination of design, equipment, work practice, and operational standards. If a

closed vent system and control device are selected, the format is a combination of design and equipment standards.

For front-end process vents, the format of today's proposed standards is also dependent on the method selected to comply with the standards. If a flare is selected, the format is a combination of equipment and operating specifications. If a control device other than a flare is used, the formats are a percent reduction and an outlet concentration.

For back-end process emissions, today's proposed standards are limits on the amount of residual HAP in the raw polymer product being fed to the back-end operation, in units of weight of HAP per weight of crumb rubber dry weight or latex. The format of today's proposed standards are dependent on the method selected to comply with the standards. If sampling is the method selected, the format is a weekly weighted average HAP content of all polymer processed in the stripping operations. The EPA is proposing test methods to determine residual HAP elsewhere in today's **Federal Register**. If add-on control is selected, the format is the reduction of HAP emissions to a level that would be equivalent to the emission reduction that would be achieved using stripping.

For equipment leaks, today's proposed standards incorporate several formats: Equipment, design, base performance levels (e.g., maximum allowable percent leaking valves), work practices, and operational practices. Different formats are necessary for different types of equipment, because of the nature of the equipment, available control techniques, and applicability of the measurement method. In addition, a work practice standard is adopted for equipment leaks resulting in the emission of HAP from cooling towers at all facilities producing a listed elastomer. This standard requires a leak detection and repair program to detect and repair leaks of HAP into cooling tower water.

For wastewater streams requiring control, today's proposed standards incorporate several formats: Equipment, operational, work practice, and emission standards. The particular format selected depends on which portion of the wastewater stream is involved. For transport and handling equipment, the selected format is a combination of equipment standards and work practices. For the reduction of

HAP from the wastewater stream itself, several alternative formats are included, including five alternative numerical emission limit formats (overall percent reduction for total volatile organic HAP (VOHAP), individual HAP percent reduction, effluent concentration limit for total VOHAP, individual VOHAP effluent concentration limits, and mass removal for HAP) and equipment design and operation standard for a steam stripper. For vapor recovery and destruction devices other than flares, the format is a weight percent reduction. For flares, the format is a combination of equipment and operating specifications.

#### F. Proposed Standards

The standards being proposed for storage vessels, continuous front-end process vents, equipment leaks, and wastewater are the same as those promulgated for the corresponding emission source types at facilities subject to the HON. Also included are standards for two emission source types not covered by the HON, batch front-end process vents and process back-end operations. The batch front-end process vent applicability and control requirements are based on the approach described in the Batch Processes ACT. The standards being proposed today for process back-end emissions are primarily based on State permit conditions that restrict the amount of residual HAP in the raw polymer product that is sent to the back-end operations.

Tables 2 and 3 summarize the level of control being proposed for new and existing sources, respectively. Where the level of control is the same as the HON for storage vessels, equipment leaks, and wastewater, this is indicated in the table as "HON." When "HON/ACT" is used in the table, the level of control for continuous front-end process vents is equal to the HON level of control, and the level of control for batch front-end process vents is equal to the 90 percent control level from the Batch Processes ACT. The following sections describe today's proposed standards in more detail, by emission source type. The rationale on which regulatory components are based is summarized in the Basis and Purpose Document, which is available as described in the introductory material of this Preamble.

TABLE 2.—SUMMARY OF PROPOSED STANDARDS FOR EXISTING SOURCES

Subcategory	Level of proposed standard <sup>a</sup>				
	Storage	Front-end process vents	Back-end process emissions	Wastewater	Equipment leaks
Br, HBR .....	HON	HON/ACT, <sup>b</sup> exempting halogenated vent streams controlled by flare of boiler before proposal date.	No control .....	NON	HON
EPI, HYP, NEO, NBL, NBR, PSR, SBL .....	HON	HON/ACT .....	No control .....	HON	HON
EPR, PBR/SBRS, SBRE .....	HON	HON/ACT .....	MACT floor residual HAP limit.	HON	HON

<sup>a</sup> HON—the level of the standard is equivalent to existing source provisions of subpart G of 40 CFR 63 for storage and wastewater, and subpart H of 40 CFR 63 for equipment leaks.

<sup>b</sup> HON/ACT—the level of the standard for continuous front-end process vents is equal to the existing source process vent provisions in subpart G of 40 CFR 63, and the level of the standard for batch front-end process vents is equal to the 90 percent control level from the Batch Processes ACT.

TABLE 3.—SUMMARY OF PROPOSED STANDARDS FOR NEW SOURCES

Subcategory	Level of standard				
	Storage	Front-end process vents	Back-end process emissions	Wastewater	Equipment leaks
BR, EPI, HBR, HYP, NEO, NBL, NBR, SBL .....	New source HON <sup>a</sup> .	New source HON/ACT <sup>b</sup> .	no control .....	New source HON.	New source HON.
EPR, PBR/SBRS, SBRE .....	New source HON.	New source HON/ACT.	New source floor residual HAP limit.	New source HON.	New source HON.

<sup>a</sup> HON—the level of the standard is equivalent to new source provisions of subpart G of 40 CFR 63 for storage and wastewater, and subpart H of 40 CFR 63 for equipment leaks.

<sup>b</sup> HON/ACT—the level of the standard for continuous front-end process vents is equal to the new source process vent provisions in subpart G of 40 CFR 63, and the level of the standard for batch front-end process vents is equal to the 90 percent control level from the Batch Processes ACT.

1. Storage Vessels

For all subcategories, the storage vessel requirements are identical to the HON storage vessel requirements in subpart G. A storage vessel means a tank or other vessel that is associated with an elastomer product process unit and that stores a liquid containing one or more organic HAP. The proposed rule specifies assignment procedures for determining whether a storage vessel is associated with an elastomer product process unit. The storage vessel provisions do not apply to the following: (1) Vessels permanently attached to motor vehicles, (2) pressure vessels designed to operate in excess of 204.9 kpa (29.7 psia), (3) vessels with capacities smaller than 38 m<sup>3</sup> (10,000 gal), (4) wastewater tanks, and (5) vessels storing liquids that contain organic HAP only as impurities. An impurity is produced coincidentally with another chemical substance and is processed, used, or distributed with it.

In addition to those vessels that do not meet the definition of storage vessels, today's proposed standards exempt certain storage vessels containing latex. Specifically, storage

vessels containing a latex, located downstream of the stripping operations, are exempt from the storage vessel requirements of the proposed rule.

The owner or operator must determine whether a storage vessel is Group 1 or Group 2; Group 1 storage vessels require control. The criteria for determining whether a storage vessel is Group 1 or Group 2 are shown in Table 4, and are the same as the HON criteria.

TABLE 4.—GROUP 1 STORAGE VESSEL CRITERIA

Vessel Capacity (cubic meters)	Vapor Pressure <sup>a</sup>
<i>Existing sources</i>	
75 ≤ capacity < 151 .....	≥13.1
151 ≤ capacity .....	≥5.2
<i>New sources</i>	
38 ≤ capacity < 151 .....	≥13.1
151 ≤ capacity .....	≥0.7

<sup>a</sup> Maximum true vapor pressure of total organic HAP at storage temperature.

The storage provisions require that one of the following control systems be applied to Group 1 storage vessels: (1) An internal floating roof with proper

seals and fittings; (2) an external floating roof with proper seals and fittings; (3) an external floating roof converted to an internal floating roof with proper seals and fittings; or (4) a closed vent system with a 95-percent efficient control device. The storage provisions give details on the types of seals and fittings required. Monitoring and compliance provisions include periodic visual inspections of vessels, roof seals, and fittings, as well as internal inspections. If a closed vent system and control device is used, the owner or operator must establish appropriate monitoring procedures. Reports and records of inspections, repairs, and other information necessary to determine compliance are also required by the storage provisions. No controls are required for Group 2 storage vessels.

2. Front-End Process Vents

There are separate provisions in the proposed rule for front-end process vents that originate from unit operations operated in a continuous mode, and those from unit operations operated in a batch mode. An affected source could be subject to both the continuous and

batch front-end process vent provisions if front-end operations at an elastomer production process unit consist of a combination of continuous and batch unit operations. The continuous provisions would be applied to those vents from continuous unit operations, and the batch provisions to vents from batch unit operations.

a. *Continuous Front-End Process Vents.* The provisions in the proposed rule for continuous front-end process vents are the same as the HON process vent provisions in subpart G.

Continuous front-end process vents are gas streams that originate from continuously operated units in the front-end of an elastomer process, and include gas streams discharged directly to the atmosphere and gas streams discharged to the atmosphere after diversion through a product recovery device. The continuous front-end process vent provisions apply only to vents that emit gas streams containing more than 0.005 weight-percent HAP.

A Group 1 continuous front-end process vent is defined as a continuous front-end process vent with a flow rate greater than or equal to 0.005 scmm, an organic HAP concentration greater than or equal to 50 ppmv, and a total resource effectiveness (TRE) index value less than or equal to 1.0. The continuous front-end process vent provisions require the owner or operator of a Group 1 continuous front-end process vent stream to: (1) Reduce the emissions of organic HAP using a flare; (2) reduce emissions of organic HAP by 98 weight-percent or to a concentration of 20 ppmv or less; or (3) achieve and maintain a TRE index above 1. Performance test provisions are included for Group 1 continuous front-end process vents to verify that the control device achieves the required performance.

The organic HAP reduction is based on the level of control achieved by the reference control technology. Group 2 continuous front-end process vent streams with TRE index values between 1.0 and 4.0 are required to monitor those process vent streams to ensure those streams do not become Group 1, which require control.

The owner or operator can calculate a TRE index value to determine whether each process vent is a Group 1 or Group 2 continuous front-end process vent, or the owner or operator can elect to comply directly with the control requirements without calculating the TRE index. The TRE index value is determined after the final recovery device in the process or prior to venting to the atmosphere. The TRE calculation involves an emissions test or

engineering assessment and use of the TRE equations in § 63.115 of subpart G.

The rule encourages pollution prevention through product recovery because an owner or operator of a Group 1 continuous front-end process vent may add recovery devices or otherwise reduce emissions to the extent that the TRE becomes greater than 1.0 and the Group 1 continuous front-end process vent becomes a Group 2 continuous front-end process vent.

Group 1 halogenated streams controlled using a combustion device must vent the emissions from the combustor to an acid gas scrubber or other device to limit emissions of halogens prior to venting to the atmosphere. The control device must reduce the overall emissions of hydrogen halides and halogens by 99 percent or reduce the outlet mass emission rate of total hydrogen halides and halogens to less than 0.45 kg/hr.

The proposed rule exempts certain halogenated process vent streams from the requirement to control the halogens at the exit from a combustion device. Specifically, halogenated continuous front-end process vents at affected sources producing butyl or halobutyl rubber are exempt from the requirements to control hydrogen halides and halogens from the outlet of combustion devices. However, the proposed rule requires that these vent streams be controlled in accordance with the other Group 1 requirements for continuous front-end process vents.

Monitoring, reporting, and recordkeeping provisions necessary to demonstrate compliance are also included in the continuous front-end process vent provisions. Compliance with the monitoring provisions is based on a comparison of daily average monitored values to enforceable parameter "levels" established by the owner or operator. A difference in the proposed rule and the HON is that the procedure for determining the enforceable parameter monitoring level for continuous process vents is both more specific and restrictive than that in subpart G. Subpart G allows the use of engineering assessments and manufacturers' recommendations in establishing the enforceable level, while the proposed rule would require that the level be established entirely based on the monitoring conducted during the compliance test. The level is established as the average of the maximum (or minimum) monitored point values for the three test runs. That is, if the operating parameter to be established is a maximum, the value of the parameter shall be the average of the maximum values from each of the three test runs.

Likewise, if the operating parameter to be established is a minimum, the value of the parameter shall be the average of the minimum values from each of the three test runs.

b. *Batch Front-End Process Vents.* Process vents that include gas streams originating from batch unit operations in the front-end of an elastomer product process unit are subject to the batch front-end process vent provisions of the proposed rule. Consistent with provisions in the proposed rule for other emission source types, batch front-end process vents are classified as Group 1 or Group 2, with control being required for Group 1 batch front-end process vents.

An important aspect of the batch front-end process vent provisions is that applicability is on an individual vent basis. All batch emission episodes that are emitted to the atmosphere through the vent are to be considered in the group determination. The proposed rule does not require that emissions from similar batch unit operations emitted from different vents be combined for applicability determinations. In other words, if a process included four batch reactors, and each reactor had a dedicated vent to the atmosphere, applicability would be determined for each reactor.

The applicability criteria of the batch front-end process vent provisions are from the Batch Processes ACT, and are based on volatility and annual emissions of the HAP emitted from the vent, and the average flow rate of the vent stream. The vent stream characteristics are determined at the exit from the batch unit operation before any emission control or recovery device. The proposed rule specifies that reflux condensers, condensers recovering monomer or solvent from a batch stripping operation, and condensers recovering monomer or solvent from a batch distillation operation are considered part of the unit operation. Therefore, the batch front-end process vent applicability criteria would be applied after these condensers.

The first step in the applicability determination is to calculate the annual HAP emissions. Annual HAP emissions may be calculated using equations contained in the regulation (which are from the Batch Processes ACT) and/or testing. Engineering assessment may also be used if the equations are not appropriate and testing is not feasible. Batch front-end process vents with annual HAP emissions less than 225 kilograms per year are exempt from all batch front-end process vent requirements, other than the

requirement to estimate annual HAP emissions.

All batch front-end process vents with annual emissions greater than 225 kilograms per year are required to determine the volatility class of the vent. The volatility class of the batch front-end process vent is based on the weighted average vapor pressure of HAP emitted annually from the vent. There are three volatility classes—low, medium, and high, which are shown in Table 5.

TABLE 5.—BATCH FRONT-END PROCESS VENT VOLATILITY CLASSES

Vent volatility class	WAVP <sup>a</sup> kilopascals
low .....	< 10
moderate .....	10 ≤ vp < 20
high .....	≥ 20

<sup>a</sup>Weighted average vapor pressure of batch front-end process vent.

There are two tiers of Group 2 batch front-end process vents. First, if the annual HAP emissions of a vent are below specified cutoff levels, the batch front-end process vent is classified as a Group 2 vent, and a batch cycle limitation must be established (discussed below). These cutoff emission levels are 11,800 kilograms HAP per year for low volatility vents, 7,300 kilograms HAP per year for medium volatility vents, and 10,500 kilograms HAP per year for high volatility vents.

If annual HAP emissions are greater than the cutoff emission levels specified above, the owner must determine the annual average flow rate of the batch front-end process vent, and the “cutoff flow rate” using the equation in the proposed rule for the appropriate volatility class. The Group 1/Group 2 classification is then based on a comparison between the actual annual average flow rate, and the cutoff flow rate. If the actual flowrate is less than the calculated cutoff flowrate, then the batch process vent is a Group 1 vent under today’s proposed standards, and control is required. If the actual flowrate is greater than the calculated cutoff flowrate, then the batch process vent is a Group 2 batch front-end process vent, and the owner or operator must establish a batch cycle limitation.

Owners and operators of Group 2 batch front-end process vents must establish a batch cycle limitation that ensures that HAP emissions from the vent do not increase to a level that would make the batch front-end process vent Group 1. The batch cycle limitation is an enforceable restriction on the number of batch cycles that can be

performed in a year. An owner or operator has two choices regarding the level of the batch cycle limitation. The limitation may be set to maintain emissions below the annual emission cutoff levels listed above, or the limitation may be set to ensure that annual emissions do not increase to a level that makes the calculated cutoff flow rate increase beyond the actual annual average flow rate. The advantage to the first option is that the owner or operator would not be required to determine the annual average flow rate of the vent. A batch cycle limitation does not limit production to any previous production level, but is based on the number of cycles necessary to exceed one of the two batch front-end process vent applicability criteria discussed above.

The batch front-end process vent provisions require the owner or operator of a Group 1 batch front-end process vent stream to: (1) Reduce the emissions of organic HAP using a flare or (2) reduce emissions of organic HAP by 90 weight-percent over each batch cycle using a control or recovery device. If a halogenated batch vent stream (defined as a vent that has a mass emission rate of halogen atoms in organic compounds of 3,750 kilograms per year or greater) is sent to a combustion device, the outlet stream must be controlled to reduce emissions of hydrogen halides and halogens by 99 percent.

Control could be achieved at varying levels for different emission episodes as long as the required level of control for the batch cycle was achieved. The owner or operator could even elect to control some emission episodes and bypass control for others. Performance test provisions are included for Group 1 batch front-end process vents to verify that the control device achieves the required performance.

Monitoring, reporting, and recordkeeping provisions necessary to demonstrate compliance are also included in the batch front-end process vent provisions. These provisions are modeled after the analogous continuous process vent provisions in the HON. Compliance with the monitoring provisions is based on a comparison of batch cycle daily average monitored values to enforceable parameter monitoring levels established by the owner or operator.

The proposed provisions for batch front-end process vents contain three conditions that can greatly simplify compliance. First, an owner or operator can control a batch front-end process vent in accordance with the Group 1 batch front-end process vent requirements and bypass the

applicability determination. Second, if a batch front-end process vent is combined with a continuous vent stream before a recovery or control device, the owner or operator is exempt from all batch front-end process vent requirements. However, applicability determinations, tests, etc. for the continuous vent must be conducted at conditions when the addition of the batch vent streams makes the HAP concentration in the combined stream greatest. Finally, if batch front-end process vents combined to create a “continuous” flow to a control or recovery device, the less complicated continuous process vent monitoring requirements are used.

### 3. Process Back-End Operations

Process back-end operations include all operations at an elastomer product process unit that occur after the stripping operations. These operations include, but are not limited to, filtering, drying, separating, and other finishing operations, as well as product storage.

The back-end process provisions contain residual HAP limitations for three subcategories: Ethylene propylene rubber (EPR), polybutadiene rubber and/or styrene butadiene rubber by solution (PBR/SBRS), and styrene butadiene rubber by emulsion (SBRE). The limitations for EPR and PBR/SBRS are in units of kilograms HAP per megagram of crumb rubber dry weight (crumb rubber dry weight means the weight of the polymer, minus the weight of water, residual organics, carbon black, and extender oils), and the limitation for SBRE is in units of kilogram HAP per megagram latex. The limitation is a weekly average weighted based on the weight of rubber or latex processed in the stripper. Two methods of compliance are available: (1) Stripping the polymer to remove the residual HAP to the levels in the standards, on a weekly weighted average basis, or (2) reducing emissions using add-on control to a level equivalent to the level that would be achieved if stripping was used.

a. *Compliance Using Stripping Technology.* If stripping is the method of compliance selected, the proposed rule allows two options for demonstrating compliance: By sampling and by monitoring stripper operating parameters. If compliance is demonstrated by sampling, samples of the stripped wet crumb or stripped latex must be taken immediately after the stripper and analyzed to determine the residual HAP content. The EPA is specifically requesting comments on the safety aspects associated with the

sampling location of the wet crumb or stripped latex.

A sample must be taken once per grade per day or once per batch per day. The sample must be analyzed to determine the residual HAP content, and the corresponding weight of rubber or latex processed in the stripper must be recorded. This information is then used to calculate a weekly weighted average. A weekly weighted average that is above the limitation is a violation of the standard, as is a failure to sample and analyze at least 75 percent of the samples required during the week. The EPA has developed test methods that would be used to determine compliance with the standard, which are proposed separately in today's **Federal Register**. Records of each test result would be required, along with the corresponding weight of the polymer processed in the stripper. Records of the weekly weighted averages must also be maintained.

An owner or operator complying using stripping can also demonstrate compliance by continuously monitoring stripper operating parameters. If using this approach, the owner or operator must establish stripper operating parameters for each grade of polymer processed in the stripper, along with the corresponding residual HAP content of that grade. The parameters that must be monitored include, at a minimum, temperature, pressure, steaming rates (for steam strippers), and some parameter that is indicative of residence time. The HAP content of the grade must be determined initially using the proposed residual HAP test methods discussed above. The owner or operator can elect to establish a single set of stripper operating parameters for multiple grades. As discussed in section V of today's notice, the EPA is requesting comments on the use of predictive computer modeling in place of stripper parameter monitoring.

A difference in the demonstration of compliance by sampling, and the demonstration of compliance by monitoring stripping parameters, is that the monitoring option is entirely based on a grade or batch. To further explain, if a particular grade of polymer is processed in the stripped continuously for 32 hours, a sample of that grade is required to be taken each operating day, if the sampling compliance demonstration option is selected. However, if the stripping parameter monitoring option is selected, the entire length of time the grade is being processed in the stripper is treated as a single unit.

During the operation of the stripper, the parameters must be continuously

monitored, with a reading of each parameter taken at least once every 15 minutes. If, during the processing of a grade, all hourly average parameter values are in accordance with the established levels, the owner or operator can use the HAP content determined initially in the calculation of the weekly weighted average, and sampling is not required. However, if one hourly average value for any parameter is not in accordance with the established operating parameter, a sample must be taken and the HAP content determined using the proposed test methods to be used in calculating the weekly weighted average.

Records of the initial residual HAP content results, along with the corresponding stripper parameter monitoring results for the sample, must be maintained. The hourly average monitoring results are required to be maintained, along with the results of any HAP content tests conducted due to exceedance of the established parameter monitoring levels. Records must also be kept of the weight of polymer processed in each grade, and the weekly weighted average values.

If complying with the residual HAP limitations using stripping technology, and demonstrating compliance by monitoring stripper parameters, there are three ways a facility can be in violation of the standard. First, a weekly weighted average that is above the limitation is a violation of the standard, as is a failure to sample and analyze a sample for a grade with an hourly average parameter value not in accordance with the established monitoring parameter levels. The third way for a facility to be out of compliance is if the stripper monitoring data are not sufficient for at least 75 percent of the grades produced during the week. Stripper data are considered insufficient if monitoring parameters are obtained for less than 75 percent of the 15 minute periods during the processing of a grade.

b. *Compliance Using Add-On Control.* If add-on control is the method of compliance selected, there are two levels of compliance. Initial compliance is based on a source test, and continuous compliance is based on the daily average of parameter monitoring results for the control or recovery device.

The initial performance test must consist of three 1-hour runs or three complete batch cycles, if the duration of the batch cycle is less than 1 hour. The test runs must be conducted during processing of "worst-case" grade, which means the grade with the highest residual HAP content leaving the

stripper. The "uncontrolled" residual HAP content in the latex or wet crumb rubber must be determined, using the proposed test methods, after the stripper. Then, when the crumb for which the uncontrolled residual HAP was determined is being processed in the back-end unit operation being controlled, the inlet and outlet emissions for the control or recovery device must be determined using Method 18. The uncontrolled HAP content is then adjusted to account for the reduction in emissions by the control or recovery device, and compared to the levels in the standard. For initial compliance, the adjusted residual HAP content level for each test run must be less than the level in today's proposed standards.

During the initial test, the appropriate parameter must be monitored, and an enforceable "level" established as a maximum or minimum operating parameter based on this monitoring. As with continuous front-end process vents, the level is established as the average of the maximum (or minimum) point values for the three test runs.

Continuous monitoring must be conducted on the control or recovery device, and compliance is based on the daily average of the monitoring results. The monitoring, recordkeeping, and reporting provisions are the same as the process vent provisions in the HON, which are required for continuous front-end process vents in today's proposed standard.

c. *Carbon disulfide limitations for styrene butadiene rubber by emulsion producers.* Today's proposed regulation would reduce carbon disulfide (CS<sub>2</sub>) emissions from styrene butadiene rubber producers using an emulsion process by limiting the concentration of CS<sub>2</sub> in the dryer vent stacks to 10 ppmv. Sulfur-containing shortstopping agents used to produce certain grades of rubber have been determined to be the source of CS<sub>2</sub> in the dryer stacks. Owners or operators would be required to develop standard operating procedures for each grade that uses a sulfur-containing shortstopping agent. These standard operating procedures would specify the type and amount of agent added, and the point in the process where the agent is added. One standard operating procedure can be used for more than one grade if possible.

For each standard operating procedure, the owner or operator would be required to conduct a performance test to measure the concentration of CS<sub>2</sub> in the dryer stack(s). A particular standard operating procedure would be acceptable if the average CS<sub>2</sub> concentration for the three required test

runs was less than 10 ppmv. The facility would be in compliance with this section of the proposed regulation if the appropriate standard operating procedure is followed whenever a sulfur-containing shortstopping agent is used. Facilities that route dryer vents to a combustion device would be exempt from this section of the regulation.

#### 4. Wastewater Operations

For all subcategories, the wastewater provisions are identical to the wastewater provisions in subparts F and G. The proposed rule applies to any organic HAP-containing water, raw material, intermediate, product, by-product, co-product, or waste material that exits any elastomer production process unit equipment and has either (1) a total volatile organic HAP concentration of 5 ppmw or greater and a flow rate of 0.02 fpm or greater; or (2) a total volatile organic HAP concentration of 10,000 ppmw or greater at any flow rate. "Wastewater," as defined in § 63.101 of subpart F, encompasses both maintenance wastewater and process wastewater. The process wastewater provisions also apply to organic HAP-containing residuals that are generated from the management and treatment of Group 1 wastewater streams. Examples of process wastewater streams include, but are not limited to, wastewater streams exiting process unit equipment (e.g., decanter water, such as condensed steam used in the process), feed tank drawdown, vessel washout/cleaning that is part of the routine batch cycle, and residuals recovered from waste management units. Examples of maintenance wastewater streams are those generated by descaling of heat exchanger tubing bundles, cleaning of distillation column traps, and draining of pumps into an individual drain system. Wastewater streams generated downstream of the stripper (i.e., back-end wastewater streams) located at facilities that are subject to a back-end emission limitation, are exempt from the wastewater requirements.

a. *Maintenance wastewater.* For maintenance wastewater, the proposed rule incorporates the requirements of § 63.105 of subpart F for maintenance wastewater. This requires owners or operators to prepare a description of procedures that will be used to manage HAP-containing wastewater created during maintenance activities, and to implement these procedures.

b. *Process wastewater.* The Group 1/Group 2 approach is also used for the HON process wastewater provisions, with Group 1 process wastewater streams requiring control. For existing

sources, a Group 1 wastewater stream is one with an average flow rate greater than or equal to 10 liters per minute and a total VOHAP average concentration greater than or equal to 1,000 parts per million by weight. For new sources, a Group 1 wastewater stream is one with an average flow rate greater than or equal to 0.02 liter per minute and an average concentration of 10 parts per million by weight or greater.

An owner or operator may determine the VOHAP concentration and flow rate of a wastewater stream either (1) at the point of generation; or (2) downstream of the point of generation. If wastewater stream characteristics are determined downstream of the point of generation, an owner or operator must make corrections for losses by air emissions; reduction of VOHAP concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or VOHAP concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP. An owner or operator can determine the flow rate and VOHAP concentration for the point of generation by (1) sampling; (2) using engineering knowledge; or (3) using pilot-scale or bench-scale test data. Both the applicability determination and the Group 1/Group 2 determination must reflect the wastewater characteristics before losses due to volatilization, a concentration differential due to dilution, or a change in VOHAP concentration or flow rate due to treatment.

There are instances where an owner or operator can bypass the group determination. An owner or operator is allowed to designate a wastewater stream or mixture of wastewater streams to be a Group 1 wastewater stream without actually determining the flow rate and VOHAP concentration for the point of generation. Using this option, an owner or operator can simply declare that a wastewater stream or mixture of wastewater streams is a Group 1 wastewater stream and that the emissions from the stream(s) are controlled from the point of generation through treatment. An owner or operator is required to determine the wastewater stream characteristics (i.e., VOHAP concentration and flow rate) for the designated Group 1 wastewater stream in order to establish the treatment requirements in section 63.138. Also, an owner or operator who elects to use the process unit alternative in § 63.138(d) of subpart G or the 95-percent biological treatment option in section 63.138(e) of subpart G is not required to make a Group 1/Group 2 determination.

Controls must be applied to Group 1 wastewater streams, unless the source complies with the source-wide mass flow rate provisions of §§ 63.138(c)(5) or (c)(6) of subpart G; or implements process changes that reduce emissions as specified in § 63.138(c)(7) of subpart G. Control requirements include (1) suppressing emissions from the point of generation to the treatment device; (2) recycling the wastewater stream or treating the wastewater stream to the required Fr values for each HAP as listed in table 9 of subpart G (The required Fr values in table 9 of subpart G are based on steam stripping); (3) recycling any residuals or treating any residuals to destroy the total combined HAP mass flow rate by 99 percent or more; and (4) controlling the air emissions generated by treatment processes. While emission controls are not required for Group 2 wastewater streams, owners or operators may opt to include them in management and treatment options.

Suppression of emissions from the point of generation to the treatment device will be achieved by using covers and enclosures and closed vent systems to collect organic HAP vapors from the wastewater and convey them to treatment devices. Air emissions routed through closed-vent systems from covers, enclosures, and treatment processes must be reduced by 95 percent for combustion or recovery devices; or to a level of 20 ppmv for combustion devices.

The treatment requirements are designed to reduce the HAP content in the wastewater prior to placement in units without air emissions controls, and thus to reduce the HAP emissions to the atmosphere. The final rule provides several compliance options, including percent reduction, effluent concentration limitations, and mass removal.

For demonstrating compliance with the various requirements, owners or operators have a choice of using a specified design, conducting performance tests, or documenting engineering calculations. Appropriate compliance, monitoring, reporting, and recordkeeping provisions are included in the regulation.

#### 5. Equipment Leaks

The equipment leak provisions in the proposed rule refer directly to the requirements contained in subpart H. In fact, many of the elastomer facilities are already subject to subpart H requirements through subpart I. Following is a summary of the subpart H requirements.

The standards would apply to equipment in organic HAP service 300 or more hours per year that is associated with an elastomer product process unit, including valves, pumps, connectors, compressors, pressure relief devices, open-ended valves or lines, sampling connection systems, instrumentation systems, surge control vessels, bottoms receivers, and agitators. The provisions also apply to closed vent systems and control devices used to control emissions from any of the listed equipment.

a. *Pumps and valves.* Today's proposed standard requires leak detection and repair for pumps in light liquid service and for valves in gas or light liquid service. Standards for both are implemented in three phases. The first and second phases for both types of equipment consist of a leak detection and repair (LDAR) program, with lower leak definitions in the second phase. The LDAR program involves a periodic check for organic vapor leaks with a portable instrument; if leaks are found, they must be repaired within a certain period of time. In the third phase, the periodic monitoring (a work practice standard) is combined with a performance requirement for an allowable percent leaking components.

The standard requires monthly monitoring of pumps using an instrument and weekly visual inspections for indications of leaks. In the first two phases of the valve standard, quarterly monitoring is required. In phase three, semiannual or annual monitoring may be used by process units with less than 1 percent and less than 0.5 percent leaking valves, respectively.

In phase three, if the base performance levels for a type of equipment are not achieved, owners or operators must, in the case of pumps, enter into a quality improvement program (QIP), and in the case of valves may either enter into a QIP or implement monthly LDAR. The QIP is a concept that enables plants exceeding the base performance levels to eventually achieve the desired levels without incurring penalty or being in a noncompliance status. As long as the requirements of the QIP are met, the plant is in compliance. The basic QIP consists of information gathering, determining superior performing technologies, and replacing poorer performers with the superior technologies until the base performance levels are achieved.

b. *Connectors.* The rule also requires leak detection and repair of connectors in gas or light liquid service. The monitoring frequency for connectors is

determined by the percent leaking connectors in the process unit and the consistency of performance. Process units that have 0.5 percent or greater leaking connectors are required to monitor all connectors annually. Units that have less than 0.5 percent may monitor biannually and units that show less than 0.5 percent for two monitoring cycles may monitor once every 4 years.

c. *Other equipment.* Subpart H also contains standards for other types of equipment, compressors, open-ended lines, pressure relief devices, and sampling connection systems. Compressors are required to be controlled using a barrier-fluid seal system, by a closed vent system to a control device, or must be demonstrated to have no leaks greater than 500 ppm. Open-ended lines must be capped or plugged. Pressure relief devices are required to be controlled using a closed vent system to a control device, a rupture disk, or must be demonstrated to have no leaks greater than 500 ppm HAP. Sampling connections must be a closed-purge or closed-loop system, or must be controlled using a closed vent system to a control device. Agitators must either be monitored for leaks or use systems that are better designed, such as dual mechanical seals. Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service are subject to instrument monitoring only if evidence of a potential leak is found through sight, sound, or smell. Instrumentation systems consist of smaller pipes and tubing that carry samples of process fluids to be analyzed to determine process operating conditions or systems for measurement of process conditions.

Surge control vessels and bottoms receivers are required to be controlled using a closed vent system vented to a control device. However, the applicability of controls to surge control vessels and bottoms receivers is based on the size of the vessel and the vapor pressure of the contents. Controls are required for surge control vessels and bottoms receivers meeting the criteria for Group 1 storage vessels. Further, in the proposed elastomer production provisions, surge control vessels and bottoms receivers located downstream from the stripper, that contain latex, are exempt from the equipment leak provisions.

d. *Other provisions.* Under certain conditions delay of repair beyond the required period may be acceptable. Examples of these situations include where: (1) A piece of equipment cannot be repaired without a process unit shutdown, (2) equipment is taken out of

organic HAP service, (3) emissions from repair will exceed emissions from delay of repair until the next shutdown, and (4) equipment with better leak performance such as pumps with single mechanical seals are replaced with dual mechanical seals.

In addition, specific alternative standards are included for batch processes and enclosed buildings. For batch processes, the owner or operator can choose either to meet similar standards to those for continuous processes with monitoring frequency pro-rated to time in use of organic HAP, or to periodically pressure test the entire system. For enclosed buildings, the owner or operator may forego monitoring if the building is kept under a negative pressure and emissions are routed through a closed vent system to an approved control device.

The equipment leak standards require the use of Method 21 of appendix A of part 60 to detect leaks. Method 21 requires a portable organic vapor analyzer to monitor for leaks from equipment in use. Test procedures using either a gas or a liquid for pressure testing the batch system are specified to detect for leaks.

The standards would require certain records to demonstrate compliance with the standard and the records must be retained in a readily accessible recordkeeping system. Subpart H requires that records be maintained of equipment that would be subject to the standards, testing associated with batch processes, design specifications of closed vent systems and control devices, test results from performance tests, and information required by equipment in QIP.

## 6. Emissions Averaging

Today's proposed standards would apply basically the same emissions averaging scheme as has been adopted by the HON, although the emissions averaging provisions of the proposed rule are entirely contained in the proposed rule instead of referring to the subpart G emissions averaging provisions. Only owners or operators of existing sources may use emissions averaging. In addition, emissions averaging is only allowed within an affected source, where an affected source is generally defined as each process unit at a plant site that produces one of the twelve types of elastomer products. All HAP emissions, except those from batch front-end process vents, equipment leaks, and wastewater streams treated in a biological treatment unit, are allowed to be included in the average. Up to 20 emission points may be included in emissions averages for all

affected sources at a single plant site (this is increased to 25 emission points where pollution prevention measures are used to control emission points to be included in an average). It is important to stress that the emission point limit is on a "plant site" basis, where the plant site is defined as all contiguous or adjoining property that is under common control. Therefore, if a plant site contains more than one affected source (i.e., different processes manufacturing more than one elastomer product), the 20 emission points allowed in emissions averages must be shared among the different processes. It should again be noted that the sharing of the number of emission points between affected sources does not mean that emission credits and debits can be shared between affected sources. In addition, the owner or operator must demonstrate that the averaging scheme will not result in greater hazard or risk relative to strict compliance with the standards in the absence of averaging.

The NESHAP for Polymers and Resins IV, which was proposed on March 29, 1995, contains a maximum number of emission points per subcategory (rather than per plant site) that can be included in emissions averaging. It is the EPA's intent, depending on consideration of public comments on both rules, to change Polymers and Resins IV to be like Polymers and Resins I (20–25 emission points per plant site), or at least to make the rules the same or consistent at promulgation.

The owner or operator must identify all the emission points that would be included in an emissions average and estimate their allowable and actual emissions using the reference efficiencies of the reference control technologies for each kind of emission point.

For each Group 1 point, the allowable emissions level is the emissions remaining after application of a reference control technology. As a result, all Group 1 emission points that are not being controlled with the reference control technology or a control measure achieving an equivalent reduction are emitting more than their allowable emissions. These points are generating emission "debits." Emission debits are calculated by subtracting the amount of emissions allowed by the standard for a given emission point from the amount of actual emissions for that point. If a Group 1 emission point is controlled by a device or a pollution prevention measure that does not achieve the control level of the reference control technology, the amount of emission debits will be based on the difference between the actual control

level being achieved and what the reference control would have achieved. Equations for calculating debits are provided in the proposed rule.

The owner or operator must control other emission points to a level more stringent than what is required for that kind of point to generate emission "credits." Emission credits are calculated by subtracting the amount of emissions that actually exist for a given emission point from the amount of emissions that would be allowed under today's proposed rule, and then applying a 10-percent discount factor. If credits are generated through the use of a pollution prevention measure, no discount factor is applied. The discount factor mimics provisions in the HON.

Justification for inclusion of a discount factor and for the level at which it is set were discussed in the Preamble to the final HON rule.<sup>1</sup> Equations for calculating credits are also provided in today's proposed rule. To be in compliance, the owner or operator must be able to show that the source's emission credits were greater than or equal to its emission debits.

Credits may come from: (1) Control of Group 1 emission points using technologies that the EPA has rated as being more effective than the appropriate reference control technology; (2) control of Group 2 emission points; and (3) pollution prevention projects that result in control levels more stringent than what the standard requires for the relevant point or points.

A reference control technology cannot be used to generate credits beyond its assigned efficiency. For a new control technology or work practice, either the EPA or the permit authority must determine its control efficiency before it can be used to generate credits.

Today's proposed rule also grants State and local implementing agencies the discretion to preclude sources from using emissions averaging. This is also consistent with the HON provisions.

#### *G. Recordkeeping and Reporting Requirements*

Specific recordkeeping and reporting requirements related to each emission source type are included in the applicable sections of the proposed rule. Section 63.491 of the proposed rule provides general reporting, recordkeeping, and testing requirements.

The general reporting, recordkeeping, and testing requirements of this subpart

are very similar to those found in subparts F and G. The proposed rule also incorporates provisions of subpart A of part 63. A table included in the proposed rule designates which sections of subpart A apply to the proposed rule.

The proposed rule requires sources to keep records and submit reports of information necessary to determine applicability and document compliance. The proposed rule requires retention of hourly average values (or batch cycle average values) of monitored parameters for operating days when there is not an excursion. If there is a monitoring parameter excursion, the 15-minute values for the excursion period must be retained. The proposed rule also requires that records of all residual HAP content test results. Records must be kept for 5 years.

Section 63.491 of the proposed rule lists the following types of reports that must be submitted to the Administrator as appropriate: (1) Initial Notification, (2) Application for Approval of Construction or Reconstruction, (3) Implementation Plan (if an operating permit application has not been submitted), (4) Emissions Averaging Plan, (5) Notification of Compliance Status, (6) Periodic Reports, and (7) other reports. The requirements for each of the seven types of reports are summarized below.

In addition, § 63.491 incorporates the reporting requirements of subpart H, which requires owners and operators to submit three types of reports: (1) An Initial Notification; (2) a Notification of Compliance Status; and (3) Periodic Reports.

#### *1. Initial Notification*

The Initial Notification is due 120 days after the date of promulgation for existing sources. For new sources, it is due 180 days before commencement of construction or reconstruction, or 45 days after promulgation, whichever is later. Owners or operators can submit one Initial Notification to comply with both the requirements of § 63.491 of the proposed rule and the requirements of subpart H. The notification must list the elastomer processes that are subject to the proposed rule, and which provisions may apply (e.g., storage vessels, continuous front-end process vents, batch front-end process vents, back-end process, wastewater, and/or equipment leak provisions). A detailed identification of emission points is not necessary for the Initial Notification. The notification, however, must include a statement of whether the source expects that it can achieve compliance by the specified compliance date.

<sup>1</sup> United States Environmental Protection Agency. 59 FR 19430, Friday, April 22, 1994. National Emission Standards for Hazardous Air Pollutants for Certain Source Categories; Final Rule.

## 2. Application for Approval of Construction or Reconstruction

The proposed rule requires that the owners or operator comply with § 63.5 of subpart A regarding the application for approval of construction or reconstruction, with one exception. The information required to be included in the Implementation Plan must be submitted as part of the application for approval of construction or reconstruction.

## 3. Implementation Plan

The Implementation Plan details how the source plans to comply. Implementation Plans are required only for existing sources that have not yet submitted operating permit applications. New sources are required to submit the information normally required in the Implementation Plan as part of the Application for Approval of Construction or Reconstruction. Implementation Plans are due 12 months prior to the date of compliance. The information in the Implementation Plan should be incorporated into the source's operating permit application. The terms and conditions of the plan, as approved by the permit authority, would then be incorporated into the operating permit.

The Implementation Plan would include a list of emission points subject to the storage vessels, continuous front-end process vents, batch front-end process vents, wastewater operations, and equipment leak provisions and, as applicable, whether each emission point (e.g., storage vessel or process vent) is Group 1 or Group 2. The control technology or method of compliance planned for each Group 1 emission point must be specified. In addition, the Implementation Plan must identify if the facility has back-end process emission operations that are subject to a back-end emission limitation. If the facility is subject to a back-end emission limitation, the owner or operator must specify if compliance will be achieved using stripping technology or add-on control. Additionally, the owner or operator must specify if continuous compliance using stripping technology will be demonstrated by sampling or by monitoring stripper parameters.

The plan must also certify that appropriate testing, monitoring, reporting, and recordkeeping will be done for each Group 1 emission point of subject process back-end. If a source requests approval to monitor a unique parameter, a rationale must be included.

## 4. Emissions Averaging Plan

The Emissions Averaging Plan would be due 18 months prior to the date of compliance. New sources are not allowed to comply through the use of emissions averaging. The owner or operator must demonstrate that the emissions described in the Plan will not result in greater hazard or risk to human health or the environment than would result if the emissions points were controlled through the traditional provisions on the rule.

For points included in emissions averaging, the Emissions Averaging Plan would include: An identification of all points in the average and whether they are Group 1 or Group 2 points; the specific control technique or pollution prevention measure that will be applied to each point; the control efficiency for each control used in the average; the projected credit or debit generated by each point; and the overall expected credits and debits. The plan must also certify that the same types of testing, monitoring, reporting, and recordkeeping that are required by the proposed rule for Group 1 points will be done for all points (both Group 1 and Group 2) included in an emissions average. If a source requests approval to monitor a unique parameter or use a unique recordkeeping and reporting system, a rationale must be included in the Emissions Averaging Plan.

## 5. Notification of Compliance Status

The Notification of Compliance Status would be required 150 days after the source's compliance date. It contains the information for Group 1 emission points, back-end process operations using add-on control, and for all emission points in emissions averages, necessary to demonstrate that compliance has been achieved. Such information includes, but is not limited to, the results of any performance tests for continuous and/or batch process vents, and wastewater emission points; one complete test report for each test method used for a particular kind of emission point; TRE determinations for process vents; group determinations for batch process vents; design analyses for storage vessels and wastewater emission points; monitored parameter levels for each emission point and supporting data for the designated level; and values of all parameters used to calculate emission credits and debits for emissions averaging. The Notification of Compliance Status required by subpart H must be submitted within 90 days after the compliance date.

## 6. Periodic Reports

Generally, Periodic Reports would be submitted semiannually. However, there are two exceptions. First, quarterly reports must be submitted for all points included in an emissions average. Second, if monitoring results show that the parameter values for an emission point are above the maximum or below the minimum established levels for more than 1 percent of the operating time in a reporting period, or the monitoring system is out of service for more than 5 percent of the time, the regulatory authority may request that the owner or operator submit quarterly reports for that emission point. After 1 year, semiannual reporting can be resumed, unless the regulatory authority requests continuation of quarterly reports.

All Periodic Reports would include information required to be reported under the recordkeeping and reporting provisions for each emission point. For emission points involved in emissions averages, the report would include the results of the calculations of credits and debits for each month and for the quarter.

For continuously monitored parameters, the Periodic Report must report when "excursions" occur. Table 6 shows what constitutes an excursion. A significant difference exists between the proposed rule and the HON. In the HON, a source was allowed a certain number of "excused" excursions each semi-annual period before the source was determined to be out of compliance. In today's proposed rule, the owner or operator is out of compliance with the provisions of this subpart for each excursion.

Periodic Reports would also include results of any performance tests conducted during the reporting period and instances when required inspections revealed problems. Additional information the source is required to report under its operating permit or Implementation Plan would also be described in Periodic Reports.

Periodic Reports for subpart H must be submitted every 6 months, and must contain summary information on the leak detection and repair program, changes to the process unit, changes in monitoring frequency or monitoring alternatives, and/or initiation of a QIP.

## 7. Other Reports

Other reports required under the proposed rule include: Reports of startup, shutdown, and malfunction; process changes that change the

compliance status of process vents; and requests for extensions of the allowable repair period and notifications of

inspections for storage vessels and wastewater.

TABLE 6.—SUMMARY OF EXCURSIONS

Emission source type	Type of excursion	Description of excursion
Continuous Front-End Process Vents.	Daily average exceedance.	When the daily average of a monitored parameter is above the maximum, or below the minimum, established level.
	Insufficient monitoring data.	Insufficient monitoring data is when an owner or operator fails to obtain a valid hour of data for at least 75 percent of the operating hours during an operating day. Four 15-minute parameter measurements must be obtained to constitute a valid hour of data.
Batch Front-End Process Vents.	Batch cycle daily average exceedance.	When the daily average of a monitored parameter is above the maximum, or below the minimum, established level.
	Insufficient monitoring data.	Insufficient monitoring data is when an owner or operator fails to obtain valid parameter measurements for at least 75 percent of the 15-minute periods during all controlled batch cycles during an operating day.
Back-End Process Operations complying by stripping/sampling.	Weekly weighted average.	When the weekly weighted average HAP content of polymers processed is above the level in the standard.
	Insufficient sampling data.	Insufficient sampling data is when an owner or operator fails to sample and/or analyze the residual HAP content for at least 75 percent of the times during the week when sampling is required.
Back-End Process Operations complying by stripping/stripper parameter monitoring.	Weekly weighted average.	When the weekly weighted average HAP content of polymers processed is above the level in the standard.
	Failure to sample .....	When a sample is not taken and analyzed in situations where a one hourly average stripper parameter value is not in accordance with the established parameter level.
	Insufficient stripper monitoring data.	Insufficient stripper monitoring data is when an owner or operator fails to obtain valid stripper monitoring data for at least 75 percent of grades or batches processing during the week. Stripper operating parameter measurements must be obtained for at least 75 percent of the 15-minute periods during the processing of a grade or batch to constitute valid stripper monitoring data.

In addition, quarterly reporting of the number of batch cycles accomplished for Group 2 batch process vents is required. Every fourth quarterly report would be required to include the total batch cycles accomplished during the previous 12 months, and a statement whether the owner or operator is in compliance with the batch cycle limitation.

**V. Discussion of Major Issues**

The Administrator welcomes comments from interested persons on any aspect of the proposed standards, and on any statement in the preamble or the referenced supporting documents. The proposed standards were developed on the basis of information available. The Administrator is specifically requesting factual information that may support either the approach taken in the proposed standards or an alternate approach. To receive proper consideration, documentation or data should be provided. Specifically, the EPA is requesting comment and data on the following issues.

As mentioned in section IV.A, the manufacture of some polymeric resins and copolymers is similar in some ways to the manufacture of the elastomers covered by today's proposed rule. The EPA does not intend for today's

proposed regulation to cover the production of resins and copolymers, but recognizes that the relatively broad elastomer type definitions in today's proposed regulation could be interpreted to include some styrene butadiene resins and copolymers. The EPA considered distinctions based on several factors, including glass transition temperature, extent of conversion of monomers, process difference, vulcanizability, SIC Codes, and relative ratio of styrene and butadiene monomers, but discovered that each of these has limitations in its ability to accurately and clearly distinguish between elastomers and resins/copolymers. Therefore, the EPA is asking for comment on specific methods or criteria to distinguish between elastomers and resins/copolymers.

The proposed rule allows the monitoring of stripper parameters instead of the daily crumb/latex sampling and analysis. The EPA is request comments on the use of predictive computer modeling to monitor process parameters and predict emissions, instead of parameter monitoring or daily sampling and testing.

The back-end operations provisions in today's proposed regulation requires

that samples of crumb rubber or latex be taken at the exit of the stripper, before any opportunity for emission of HAP to the atmosphere. The EPA is requesting comments on the technical feasibility and potential safety problems associated with these sampling requirements.

The EPA is also requesting comments on the format of the back-end provisions limiting the concentration of carbon disulfide in dryer vents at styrene butadiene rubber by emulsion production facilities. Industry representatives have made the EPA aware of other approaches that could be taken to reduce these carbon disulfide emissions, such as a limit on the amount of sulfur-containing shortstopping that could be used. The EPA is interested in comments on the appropriateness of the format for this section of the proposed rule, as well suggestions for alternative approaches.

In today's proposed rule, emissions averaging is only allowed among emission points associated with a single elastomer subcategory. There are instances where more than one subcategory is present at the same plant site. The EPA is interested in specific instances where emissions averaging between subcategories is beneficial and, more broadly, on the merits of allowing emissions averaging across

subcategories (or categories) at polymers and resins facilities where multiple subcategories are located. In addition, the EPA is interested in the implementation and legal ramifications of such cross-subcategory averaging.

Also, the EPA is specifically requesting comments on the application of the 20 emission point limit (25, if pollution prevention is used) on all elastomer affected sources located at a single plant site, for purposes of averaging in this proposed rule. The EPA is especially interested in specific situations where this limit will preclude known opportunities within real facilities to generate cost-effective credits. For these cases, the comments would be more useful if they address specifics on the emission and cost quantities computed, with detailed calculations and references.

Industry representatives have also mentioned to the EPA safety problems associated with the application of the subpart H requirements for open-ended valves or lines. The EPA is interested in comments on this issue.

**VI. Summary of Environmental, Energy, Cost, and Economic Impacts**

This section presents the air, non-air environmental (waste and solid waste),

energy, cost, and economic impacts resulting from the control of HAP emissions under this rule.

**A. Facilities Affected by These NESHAP**

The proposed rule would affect BR, EPI, EPR, HYP, NEO, NBR, PBR, PSR, and SBR facilities that are major sources in themselves, or that are located at a major source. Based on available information, all of the facilities at which these elastomers are produced were judged to be major sources for the purpose of developing these standards. (Final determination of major source status occurs as part of the compliance determination process undertaken by each individual source.)

Impacts are presented relative to a baseline reflecting the level of control in the absence of the rule. The current level of control was well understood, because emissions and control data were collected on each facility included in the analysis. The impacts for existing sources were estimated by bringing each facility's control level up to today's proposed standards.

Impacts are presented relative to a baseline reflecting the level of control in the absence of the rule. The current level of control was well understood, because emissions and control data

were collected on each facility included in the analysis. The impacts for existing sources were estimated by bringing each facility's control level up to today's proposed standards.

Impacts are not assessed for new sources because it was projected that no new sources are expected to begin operation through 1999. For more information on this projection, see the New Source Memo in the SID.

**B. Primary Air Impacts**

Today's proposed standards are estimated to reduce HAP emissions from all existing sources of listed elastomers by 6,400 Mg/yr. This represents a 48 percent reduction from baseline. Table 7 summarizes the HAP emission reductions for each individual subcategory.

**C. Other Environmental Impacts**

The total criteria air pollutant emissions resulting from process vent and wastewater control of today's proposed standards are estimated to be around 178 Mg/yr, with NO<sub>x</sub> emissions from incinerators and boilers accounting for around 155 Mg/yr. Minimal wastewater or solid and hazardous waste impacts are projected.

TABLE 7.—HAP EMISSION REDUCTION BY SUBCATEGORY

Subcategory	HAP Emission Reduction (Mg/yr)						Percentage reduction from base-line
	Storage	Front-end process vents	Back-end process operations	Wastewater operations	Equipment leaks	Total	
Butyl rubber .....	0	211	0	102	293	606	64
Epichlorohydrin elastomer .....	4	0	0	0	120	124	77
Ethylene propylene rubber .....	2	85	979	0	1,020	2,087	62
Halobutyl rubber .....	64	38	0	0	233	335	26
Hypalon™ .....	0	0	0	0	0	0	0
Neoprene .....	0	258	0	0	96	354	48
Nitrile butadiene latex .....	2	0	0	94	41	135	83
Nitrile butadiene rubber .....	0	0	0	0	364	364	62
Polybutadiene rubber/styrene butadiene rubber by solution .....	0	0	882	0	637	1,519	44
Polysulfide rubber .....	0	0	0	0	0	0	0
Styrene butadiene latex .....	0	22	0	272	332	627	44
Styrene butadiene rubber by emulsion ....	0	0	195	48	0	243	23
Total .....	71	615	2,056	516	3,136	6,393	48
Percent of total reduction .....	(1)	(12)	(31)	(7)	(48)	.....	.....

**D. Energy Impacts**

The total nationwide energy demands that would result from implementing the process vent and wastewater controls are around 1.10 × 10<sup>12</sup> Btu annually.

**E. Cost Impacts**

Cost impacts include the capital costs of new control equipment, the cost of

energy (supplemental fuel, steam, and electricity) required to operate control equipment, operation and maintenance costs, and the cost savings generated by reducing the loss of valuable product in the form of emissions. Also, cost impacts include the costs of monitoring, recordkeeping, and reporting associated with today's proposed standards. Average cost effectiveness (\$/Mg of

pollutant removed) is also presented as part of cost impacts and is determined by dividing the annual cost by the annual emission reduction. Table 8 summarizes the estimated capital and annual costs and average cost effectiveness by subcategory.

TABLE 8.—SUMMARY OF PROPOSED REGULATORY ALTERNATIVE COSTS

	TCI (1,000\$)	TAC (1,000\$/yr)	AER (Mg/yr)	CE (\$/Mg)
Butyl .....	\$691	\$1,316	596	\$2,200
Epichlorohydrin .....	491	241	124	1,900
Ethylene Propylene .....	5,957	3,732	2,087	1,800
Halobutyl .....	328	322	335	1,000
Hypalon® .....	.....	.....	.....	na
Neoprene .....	560	897	354	2,500
Nitrile Butadiene Latex .....	465	243	135	1,800
Nitrile Butadiene Rubber .....	397	444	365	1,200
Polybutadiene/Styrene Butadiene Rubber by Solution .....	11,780	8,335	1,519	<sup>a</sup> 5,500
Polysulfide .....	.....	.....	.....	na
Styrene Butadiene Latex .....	1,480	1,028	627	1,600
Styrene Butadiene Rubber by Emulsion .....	3,942	2,112	243	<sup>a</sup> 8,700

<sup>a</sup> This cost-effectiveness is primarily due to the high costs estimated to control back-end process emissions. The costs developed are costs for incineration devices to sufficient back-end vents so that emissions will be reduced to a level equivalent to the level achieved by meeting the residual HAP limit by stripping. Extrapolation of industry estimates of the cost of enhanced stripping place the cost of enhanced stripping as low as 10 percent of the cost of incineration.

Under the proposed rule, it is estimated that total capital costs for existing sources would be \$26 million (1989 dollars), and total annual costs would be \$18.7 million (1989 dollars) per year. It is expected that the actual compliance cost impacts of the proposed rule would be less than presented because of the potential to use common control devices, upgrade existing control devices, use other less expensive control technologies, implement pollution prevention technologies, or use emissions averaging. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, it is not possible to quantify the amount by which actual compliance costs would be reduced.

#### F. Economic Impacts

Economic impacts for the regulatory alternatives analyzed show that the estimated price increases for the affected chemicals range from 0.2 percent for nitrile butadiene latex (NBL) to 2.5 percent for BR. Estimated decreases in production range from 0.7 percent for NBL to 5.0 percent for BR. No closures of facilities are expected as a result of the standard.

Three aspects of the analysis likely lead to an overestimate of the impacts. First, the economic analysis model assumes that all affected firms compete in a national market, though in reality some firms may be protected from competitors by regional or local trade barriers. Second, facilities with the highest control cost per unit of production are assumed to also have the highest baseline production costs per unit. This assumption may not always be true, because the baseline production cost per unit are not known, and thus,

the estimated impacts, particularly for the smaller firms, may be too high. Finally, economic impacts may be overstated also because the alternative for halobutyl rubber and butyl rubber that was used in this analysis is more stringent and more costly than the selected regulatory alternative. For more information, consult the Basis and Purpose Document (see the Supplementary Information section near the beginning of the preamble).

### VII. Administrative Requirements

#### A. Public Hearing

A public hearing will be held, if requested, to discuss today's proposed standard in accordance with section 307(d)(5) of the Clean Air Act. Persons wishing to make oral presentation on today's proposed standards for BR, EPI, EPR, HYP, NEO, NBR, PBR, PSR, and SBR production should contact the EPA at the address given in the ADDRESSES section of this preamble. Oral presentations will be limited to 15 minutes each. Any member of the public may file a written statement before, during, or within 30 days after the hearing. Written statements should be addressed to the Air Docket Section address given in the ADDRESSES section of this preamble and should refer to Docket No. A-92-45.

A verbatim transcript of the hearing and written statements will be available for public inspection and copying during normal working hours at the EPA's Air Docket Section in Washington, DC (see ADDRESSES section of this preamble).

#### B. Docket

The docket is an organized and complete file of all the information submitted to or otherwise considered by the EPA in the development of this

proposed rulemaking. The principal purposes of the docket are:

- (1) To allow interested parties to readily identify and locate documents so that they can intelligently and effectively participate in the rulemaking process; and
- (2) To serve as the record in case of judicial review (except for interagency review materials (section 307(d)(7)(A))).

#### C. Executive Order 12866

Under Executive Order 12866. (58 FR 51735 (October 4, 1993)) the Agency must determine whether the regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of the Executive Order, OMB has notified the EPA that it considers this a "significant regulatory action" within the meaning of the Executive Order. The EPA has submitted this action to OMB for review. Changes made in response to

OMB suggestions or recommendations will be documented in the public record.

*D. Enhancing the Intergovernmental Partnership Under Executive Order 12875*

In compliance with Executive Order 12875 we have involved State, local, and tribal Governments in the development of this rule. These governments are not directly impacted by the rule; i.e., they are not required to purchase control systems to meet the requirements of the rule. However, they will be required to implement the rule; e.g., incorporate the rule into permits and enforce the rule. They will collect permit fees that will be used to offset the resource burden of implementing the rule. Two representatives of the State governments have been members of the EPA Work Group developing the rule. The Work Group has met numerous times, and comments have been solicited from the Work Group members, including the State representatives; and their comments have been carefully considered in the rule development. In addition, all States are encouraged to comment on this proposed rule during the public comment period, and the EPA intends to fully consider these comments in the final rulemaking.

*E. Paperwork Reduction Act*

The information collection requirements in this proposed rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An information collection request (ICR) document has been prepared by the EPA, and a copy may be obtained from Sandy Farmer, Information Policy Branch, EPA, 401 M Street SW. (2136), Washington, DC 20460, or by calling (202) 260-2740. The public reporting burden for this collection of information is estimated to average 587 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, 2136, U. S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20503, marked "Attention: Desk Officer for EPA." The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

*F. Regulatory Flexibility Act*

The Regulatory Flexibility Act (or RFA, Public Law 96-354, September 19, 1980) requires Federal agencies to give special consideration to the impact of regulation on small businesses. The RFA specifies that a final regulatory flexibility analysis must be prepared if a proposed regulation will have a significant economic impact on a substantial number of small entities. To determine whether a final RFA is required, a screening analysis, otherwise known as an initial RFA, is necessary.

Regulatory impacts are considered significant if:

- (1) Annual compliance costs increase total costs of production by more than 5 percent, or
- (2) Annual compliance costs as a percent of sales are at least 20 percent (percentage points) higher for small entities, or
- (3) Capital cost of compliance represents a significant portion of capital available to small entities, or
- (4) The requirements of the regulation are likely to result in closures of small entities.

A "substantial number" of small entities is generally considered to be more than 20 percent of the small entities in the affected industry.

Consistent with Small Business Administration (SBA) size standards, a resin producing firm is classified as a small entity if it has less than 1,000 employees, and is unaffiliated with a larger entity. Based upon this, 5 of the 18 firms affected are classified as small.

Data were not readily available to compare compliance costs to production costs (criterion 1) or to capital available to small firms (criterion 3), because the needed data were considered proprietary by those firms. Data were available to examine the remaining two criteria: the potential for closure, and a comparison of compliance costs as a percentage of sales.

No facilities are expected to close; therefore, the fourth criteria was not met. The final criteria was not met either, because the increase in annual compliance costs as a percentage of sales ranged from 0.04 percent to 1.11 percent, and therefore, the increases were not considered significant.

In conclusion, and pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities. The basis for the certification is that the economic impacts for small entities do not meet or exceed the criteria in the Guidelines to the Regulatory Flexibility

Act of 1980, as shown above. Further information on the initial RFA is available in the background information package (see **SUPPLEMENTARY INFORMATION** section near the beginning of this preamble).

*G. Miscellaneous*

In accordance with section 117 of the Act, publication of this proposal was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies. The Administrator will welcome comments on all aspects of the proposed regulation, including health, economic and technical issues, and on the proposed test methods.

This regulation will be reviewed 8 years from the date of promulgation. This review will include an assessment of such factors as evaluation of the residual health and environmental risks, any overlap with other programs, the existence of alternative methods, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

**List of Subjects in 40 CFR Part 63**

Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: May 30, 1995.

**Carol M. Browner,**  
*Administrator.*

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**40 CFR Part 63**

[FRL-5217-5]

**Methods for the Polymers and Resins I Rule; Appendix A, Test Methods 310, 312, 313**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** Methods 310, 312, and 313 are being proposed in conjunction with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Manufacture of Major Elastomers, commonly referred to as the Polymers and Resins I Rule. The proposed methods were adapted from industrial methods submitted by the facilities in the polymers and resins industry and reviewed by the EPA. After consideration of public comments, the methods will be promulgated, in conjunction with the Polymers and Resins I rule, as EPA methods 310, 312, and 313, 40 CFR part 63, appendix A.