

effective date of standards for an acetal resins, acrylic and modacrylic fiber, hydrogen fluoride, or polycarbonate production affected source.

(2) *Compliance dates for existing sources.* (i) The owner or operator of an existing acetal resins, acrylic and modacrylic fiber, hydrogen fluoride, or polycarbonate production affected source shall comply with the requirements of this subpart within 3 years after the effective date of standards for the affected source.

(ii) The owner or operator of an acetal resins, acrylic and modacrylic fiber, hydrogen fluoride, or polycarbonate production nonmajor source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to the relevant standards for existing sources under this subpart. Such sources shall comply with the relevant standard within 3 years of becoming a major source.

§ 63.1103 Source category-specific applicability, definitions, and requirements.

(a) *Acetal resins production applicability, definitions, and requirements—(1) Applicability—(i) Affected source.* For the acetal resins production source category (as defined in paragraph (a)(2) of this section), the affected source shall comprise all emission points, in combination, listed in paragraphs (a)(1)(i)(A) through (D) of this section, that are associated with an acetal resins production process unit located at a major source, as defined in section 112(a) of the Clean Air Act (Act).

(A) All storage vessels that store liquids containing organic HAP.

(B) All process vents from continuous unit operations (front end process vents and back end process vents).

(C) All wastewater streams associated with the acetal resins production process unit as defined in (a)(2) of this section.

(D) Equipment (as defined in § 63.1101 of this subpart) that contains or contacts organic HAP.

(ii) *Compliance schedule.* The compliance schedule for affected sources as defined in paragraph (a)(1)(i) of this section is specified in § 63.1102(a).

(2) *Definitions.*

Acetal resins production means the production of homopolymers and/or copolymers of alternating oxymethylene units. Acetal resins are also known as polyoxymethylenes, polyacetals, and aldehyde resins. Acetal resins are generally produced by polymerizing formaldehyde (HCHO) with the methylene functional group (CH₂) and are characterized by repeating oxymethylene units (CH₂O) in the polymer backbone.

Back end process vent means any process vent from a continuous unit operation that is not a front end process vent up to the final separation of raw materials and by-products from the stabilized polymer.

Front end process vent means any process vent from a continuous unit operation involved in the purification of formaldehyde feedstock for use in the acetal homopolymer process. All front end process vents are restricted to those vents that occur prior to the polymer reactor.

(3) *Requirements.* Table 1 of this section specifies the acetal resins production standards applicability for existing and new sources. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source is not required to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113. The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in table 1 of this section.

TABLE 1. TO § 63.1103(A)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACETAL RESINS PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate. . .	And if. . .	Then you must. . .
1. A storage vessel with: 34 cubic meters < capacity.	The maximum true vapor pressure of organic HAP > 17.1 kilopascals (for existing sources) or > 11.7 kilopascals (for new sources).	a. Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part; or b. Comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A front end process vent from continuous unit operations.	a. Reduce emissions of total organic HAP by using a flare meeting the requirements of subpart SS of this part; or b. Reduce emissions of total organic HAP by 60 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part.
3. A back end process vent from continuous unit operations.	The vent stream has a a TRE ^a < 1.0	a. Reduce emissions of total organic HAP by using a flare meeting the requirements of subpart SS of this part; or b. Reduce emissions of total organic HAP by 98 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part; or c. Achieve and maintain a TRE index value greater than 1.0.
4. A back end process vent from continuous unit operations.	1.0 ≤ TRE ^a ≤ 4.0	Monitor and keep records of equipment operating parameters specified to be monitored under subpart SS, §§ 63.990(c)(absorber, condenser, and carbon adsorber monitoring) or 63.995(c) (other noncombustion systems used as a control device monitoring) of this part.
5. Equipment as defined under § 63.1101	The equipment contains or contacts ≥ 10 weight-percent organic HAP ^b , and operates ≤ 300 hours per year.	Comply with the requirements of subpart TT (national emission standards for equipment leaks (control level 1)) or subpart UU (national emission standards for equipment leaks (control level 2)) of this part.
6. An acetal resins production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
7. An acetal resins production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
8. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.

a The TRE is determined according to the procedures specified in § 63.1104(j).
b The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(b) *Acrylic and modacrylic fiber production applicability, definitions, and requirements.* (1) *Applicability.* (i) *Affected source.* For the acrylic fibers and modacrylic fibers production (as defined in paragraph (b)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (b)(1)(i)(A) through (E) of this section, that are associated with a suspension or solution polymerization process unit that produces acrylic and modacrylic fiber located at a major source as defined in section 112(a) of the Act.

(A) All storage vessels that store liquid containing acrylonitrile or organic HAP.

(B) All process vents from continuous unit operations.

(C) All wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in (b)(2) of this section.

(D) Equipment (as defined in § 63.1101 of this subpart) that contains or contacts acrylonitrile or organic HAP.

(E) All acrylic and modacrylic fiber spinning lines using a spinning solution or suspension having organic acrylonitrile or organic HAP. For the purposes of implementing this paragraph, a spinning line includes the spinning solution filters, spin bath, and the equipment used downstream of the spin bath to wash, dry, or draw the spun fiber.

(ii) *Compliance schedule.* The compliance schedule, for affected sources as defined in paragraph (b)(1)(i) of this section, is specified in § 63.1102(a).

(2) *Definitions.*

Acrylic fiber means a manufactured synthetic fiber in which the fiber-forming substance is any long-chain synthetic polymer composed of at least 85 percent by weight of acrylonitrile units.

Acrylic and modacrylic fibers production means the production of either of the following synthetic fibers composed of acrylonitrile units:

(i) Acrylic fiber.

(ii) Modacrylic fiber.

Acrylonitrile solution polymerization means a process where acrylonitrile and comonomers are dissolved in a solvent to form a polymer solution (typi-

cally polyacrylonitrile). The polyacrylonitrile is soluble in the solvent. In contrast to suspension polymerization, the resulting reactor polymer solution (spin dope) is filtered and pumped directly to the fiber spinning process.

Acrylonitrile suspension polymerization means a polymerization process where small drops of acrylonitrile and comonomers are suspended in water in the presence of a catalyst where they polymerize under agitation. Solid beads of polymer are formed in this suspension reaction which are subsequently filtered, washed, refiltered, and dried. The beads must be subsequently redissolved in a solvent to create a spin dope prior to introduction to the fiber spinning process.

Fiber spinning line means the group of equipment and process vents associated with acrylic or modacrylic fiber spinning operations. The fiber spinning line includes (as applicable to the type of spinning process used) the blending and dissolving tanks, spinning solution filters, wet spinning units, spin bath tanks, and the equipment used downstream of the spin bath to wash, dry, or draw the spun fiber.

Modacrylic fiber means a manufactured synthetic fiber in which the fiber-forming substance is any long-chain synthetic polymer composed of at least 35 percent by weight of acrylonitrile units but less than 85 percent by weight of acrylonitrile units.

Spin dope means the liquid mixture of polymer and solvent that is fed to the spinneret to form the acrylic and modacrylic fibers.

(3) *Requirements.* An owner or operator of an affected source must comply with the requirements of paragraph (b)(3)(i) or (ii) of this section.

(i) Table 2 of this section specifies the acrylic and modacrylic fiber production source category control requirement applicability for both existing and new sources. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or operator of an affected source is not required to perform tests, or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to

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this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113. The

owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in table 2 of this section.

TABLE 2.—To § 63.1103(b)(3)(i)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (B)(3)(I) OF THIS SECTION?

If you own or operate...	And if...	Then you must...
1. A storage vessel	The stored material is acrylonitrile	a. Reduce emissions of acrylonitrile by 98 weight-percent by venting emissions through a closed vent system to any combination of control device meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part, or 95 weight-percent or greater by venting through a closed vent system to a recovery device meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), § 63.993 (recovery device requirements) of this part; or b. Comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A process vent from continuous unit operations (halogenated).	The vent steam has a mass emission rate of halogen atoms contained in organic compounds ≥ 0.45 kilograms per hour ^a and an acrylonitrile concentration ≥ 50 parts per million by volume ^b and an average flow rate ≥ 0.005 cubic meters per minute.	a. Reduce emissions of acrylonitrile or TOC as specified for nonhalogenated process vents from continuous unit operations (other than by using a flare) by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994 (halogen reduction devices requirements) of this part that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per year, whichever is less stringent; or b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994 (halogen reduction devices requirements) of this part and then complying with the requirements specified for process vents from continuous unit operations (nonhalogenated).

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TABLE 2.—TO § 63.1103(b)(3)(i)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (B)(3)(I) OF THIS SECTION?—Continued

If you own or operate...	And if...	Then you must...
3. A process vent from continuous unit operations (nonhalogenated).	The vent steam has a mass emission rate of halogen atoms contained in organic compounds <0.45 kilograms per hour ^a , and an acrylonitrile concentration ≥50 parts per million by volume ^b and an average flow rate ≥0.005 cubic meters per minute.	<p>a. Reduce emissions of acrylonitrile by using a flare meeting the requirements of subpart SS, § 63.987 (flare requirements) of this part or</p> <p>b. Reduce emissions of acrylonitrile by 98 weight-percent, or reduce TOC to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(2) (process vent requirements) of this part.</p>
4. A fiber spinning line that is a new or reconstructed source.	The lines use a spin dope produced from either a suspension polymerization process or solution polymerization process.	<p>a. Reduce acrylonitrile emissions by 85 weight-percent or more. (For example, by enclosing the spinning and washing areas of the spinning line (as specified in paragraph (b)(4) of this section) and venting through a closed vent system and using any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a), of this part); or</p> <p>b. Reduce acrylonitrile emissions from the spinning line to less than or equal to 0.25 kilograms of acrylonitrile per megagram (0.5 pounds of acrylonitrile per ton) of acrylic and modacrylic fiber produced; or</p> <p>c. Reduce the AN concentration of the spin dope to less than 100 ppmw.</p>
5. A fiber spinning line that is an existing source.	The spinning line uses a spin dope produced from a solution polymerization process.	Maintain records and report emissions as specified in §§ 63.1109 through 63.1110. Control of spinning line AN emissions is not required
6. A fiber spinning line that is an existing source.	The spinning line uses a spin dope produced from a suspension polymerization process.	<p>a. Reduce the AN concentration of the spin dope to less than 100 ppmw^b, or</p> <p>b. Reduce acrylonitrile emissions from the spinning line to less than or equal to 0.025 kilograms of acrylonitrile per megagram of acrylic and modacrylic fiber produced.</p>
7. Equipment as defined under § 63.1101	It contains or contacts ≥10 weight-percent acrylonitrile ^c , and operates ≥300 hours per year.	Comply with the requirements of subpart TT (national emission standards for equipment leaks (control level 1)) or subpart UU (national emission standards for equipment leaks (control level 2)) of this part.
8. An acrylic and modacrylic fiber production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
9. An acrylic and modacrylic fiber production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
10. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.

^a The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).

^b The percent by weight organic HAP is determined according to the procedures specified in § 63.1107.

^c The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(ii) The owner or operator must control organic HAP emissions from the acrylic and modacrylic fibers production facility by meeting the applicable requirements specified in table 3 of this section. The owner or operator must determine the facility acrylonitrile emission rate using the procedures specified in paragraph (b)(5) of this section. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or

operator of an affected source does not have to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 3. TO § 63.1103(B)(3)(II).—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE AN ACRYLIC AND MODACRYLIC FIBER PRODUCTION EXISTING OR NEW AFFECTED SOURCE AND AM COMPLYING WITH PARAGRAPH (B)(3)(II) OF THIS SECTION?

If you own or operate...	Then you must control total organic HAP emissions from the affected source by...
1. An acrylic and modacrylic fibers production affected source and your facility is an existing source.	Meeting all of following requirements: a. Reduce total acrylonitrile emissions from all affected storage vessels, process vents, wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in paragraph (b)(2) of this section, and fiber spinning lines operated in your acrylic and modacrylic fibers production facility to less than or equal to 1.0 kilograms (kg) of acrylonitrile per megagram (Mg) of fiber produced. b. Determine the facility acrylonitrile emission rate in accordance with the requirements specified in paragraph(b)(5) of this section.
2. An acrylic and modacrylic fibers production affected source and your facility is a new source.	Meeting all of following requirements: a. Reduce total acrylonitrile emissions from all affected storage vessels, process vents, wastewater streams associated with the acrylic and modacrylic fibers production process unit as defined in paragraph (b)(2) of this section, and fiber spinning lines operated in the acrylic and modacrylic fibers production facility to less than or equal to 0.5 kilograms (kg) of acrylonitrile per megagram (Mg) of fiber produced. b. Determine the facility acrylonitrile emission rate in accordance with the requirements specified in paragraph (b)(5) of this section.
3. Equipment as defined under § 63.1101 and it contains or contacts > 10 weight-percent acrylonitrile, ^a and operates > 300 hours per year.	Meeting either of the following standards for equipment leaks: a. Comply with subpart TT of this part; or b. Comply with subpart UU of this part.

^aThe weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

(4) *Fiber spinning line enclosure requirements.* For an owner or operator of a new or modified source electing to comply with paragraph (b)(3)(i) of this section, the fiber spinning line enclosure must be designed and operated to meet the requirements specified in paragraphs (b)(4)(i) through (iv) of this section.

(i) The enclosure must cover the spinning and washing areas of the spinning line.

(ii) The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” in 40 CFR 52.741, Appendix B.

(iii) The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, ve-

hicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure.

(iv) The owner or operator must perform the verification procedure for the enclosure as specified in section 5.0 to “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

(5) *Facility acrylonitrile emission rate determination.* For an owner or operator electing to comply with paragraph (b)(3)(ii) of this section, the facility acrylonitrile emission rate must be determined using the requirements specified in paragraphs (b)(5)(i) through (iii) of this section.

(i) The owner or operator must prepare an initial determination of the facility acrylonitrile emission rate.

(ii) Whenever changes to the acrylic or modacrylic fiber production operations at the facility could potentially cause the facility acrylonitrile emission rate to exceed the applicable limit of kilogram of acrylonitrile per Megagram of fiber produced, the owner or operator must prepare a new determination of the facility acrylonitrile emission rate.

(iii) For each determination, the owner or operator must prepare and maintain at the facility site sufficient process data, emissions data, and any other documentation necessary to support the facility acrylonitrile emission rate calculation.

(c) *Hydrogen fluoride production applicability, definitions, and requirements*—(1) *Applicability*—(i) *Affected source*—For the hydrogen fluoride production (as defined in paragraph (c)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (c)(1)(i)(A) through (D) of this section, that are associated with a hydrogen fluoride production process unit located at a major source as defined in section 112(a) of the Act.

(A) All storage vessels used to accumulate or store hydrogen fluoride.

(B) All process vents from continuous unit operations associated with hydrogen fluoride recovery and refining operations. These process vents include vents on condensers, distillation units, and water scrubbers.

(C) All transfer racks used to load hydrogen fluoride into tank trucks or railcars.

(D) Equipment in hydrogen fluoride service (as defined in paragraph (c)(2) of this section).

(ii) *Compliance schedule*. The compliance schedule, for affected sources as defined in paragraph (c)(1)(i) of this section, is specified in §63.1102(a).

(2) *Definitions*.

Connector means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purposes of this subpart.

Equipment means each pump, compressor, agitator, pressure relief device,

sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in hydrogen fluoride service; and any control devices or closed-vent systems used to comply with this subpart.

Hydrogen fluoride production means a process engaged in the production and recovery of hydrogen fluoride by reacting calcium fluoride with sulfuric acid. For the purpose of implementing this subpart, hydrogen fluoride production is not a process that produces gaseous hydrogen fluoride for direct reaction with hydrated aluminum to form aluminum fluoride (i.e., the hydrogen fluoride is not recovered as an intermediate or final product prior to reacting with the hydrated aluminum).

In hydrogen fluoride service means that a piece of equipment either contains or contacts a hydrogen fluoride process fluid (liquid or gas).

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems.

Kiln seal means the mechanical or hydraulic seals at both ends of the kiln, designed to prevent the infiltration of moisture and air through the interface of the rotating kiln and stationary pipes and equipment attached to the kiln during normal vacuum operation of the kiln (operation at an internal pressure of at least 0.25 kilopascal [one inch of water] below ambient pressure).

Leakless pump means a pump whose seals are submerged in liquid, a magnetically-driven pump, a pump equipped with a dual mechanical seal system that includes a barrier fluid system, a canned pump, or other pump that is designed with no externally actuated shaft penetrating the pump housing.

Open-ended valve or line means any valve, except relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices.

Relief device or valve means a valve used only to release an unplanned, non-routine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Repaired for the purpose of this regulation means equipment is adjusted, or otherwise altered, to eliminate a leak identified by sensory monitoring.

Sampling connection system means an assembly of equipment within a proc-

ess unit or affected facility used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensory monitoring means the detection of a potential leak to the atmosphere by walk-through visual, audible, or olfactory monitoring. Comprehensive component-by-component inspection is not required.

Shift means the time a shift operator normally works, typically 8 or 12 hours.

(3) *Requirements.* Table 4 of this section specifies the hydrogen fluoride production source category applicability and control requirements for both existing and new sources. The owner or operator must control hydrogen fluoride emissions from each affected source emission point as specified in table 4. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Specific monitoring, recordkeeping, and reporting requirements are specified in table 4. Minimization of emissions from startups, shutdowns, and malfunctions, including those resulting from kiln seals must be addressed in the startup, shutdown, and malfunction plan required by § 63.1111; the plan must also establish reporting and recordkeeping of such events. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 4. TO § 63.1103(c)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A HYDROGEN FLUORIDE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
1. A storage vessel	The stored material is hydrogen fluoride	Reduce emissions of hydrogen fluoride by venting displacement emissions created by normal filling or emptying activities through a closed-vent system to a recovery system or wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. The minimum liquid flow rate to the scrubber that achieves a 99 weight-percent removal efficiency shall be established, and may be done so by design analysis. The liquid flow rate to the scrubber shall be continuously monitored and records maintained according to § 63.996 and § 63.998(b), (c), and (d)(3) of 40 CFR subpart SS of this part. The Periodic Report specified in § 63.1110(a)(5) of this subpart shall include the information specified in § 63.999(c) of 40 CFR subpart SS of this part, as applicable.
2. A process vent from continuous unit operations.	The vent stream is from hydrogen fluoride recovery and refining vessels.	Reduce emissions of hydrogen fluoride from the process vent by venting emissions through a closed-vent system to a wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. Monitoring, recordkeeping, and reporting of wet scrubber operation shall be in accordance with the requirements stated above for a wet scrubber controlling hydrogen fluoride emissions from a storage vessel.
3. A transfer rack	The transfer rack is associated with bulk hydrogen fluoride liquid loading into tank trucks and rail cars.	Reduce emissions of hydrogen fluoride by venting emissions through a closed-vent system to a recovery system or wet scrubber that is designed and operated to achieve a 99 weight-percent removal efficiency. Monitoring, recordkeeping, and reporting of wet scrubber operation shall be in accordance with the requirements stated above for a wet scrubber controlling HF emissions from a storage vessel. You also must load hydrogen fluoride into only tank trucks and railcars that have a current certification in accordance with the U.S. DOT pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars; or have been demonstrated to be vapor-tight (i.e. will sustain a pressure change of not more than 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals) within the preceding 12 months.

TABLE 4. TO § 63.1103(C)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A HYDROGEN FLUORIDE PRODUCTION EXISTING OR NEW AFFECTED SOURCE?—Continued

If you own or operate . . .	And if . . .	Then you must . . .
4. Equipment	It is in hydrogen fluoride service and operates ≥ 300 hours per year and is not in vacuum service.	Control hydrogen fluoride emissions by using leakless pumps and by implementing a sensory monitoring leak detection program. Equipment that is excluded from sensory monitoring because it operates less than 300 hours per year or is in vacuum service shall be identified by list, location, or other method and the identity shall be recorded. An owner or operator is required to perform sensory monitoring at least once every shift, but no later than within 15 days. When a leak is detected, repair must begin within one hour and be completed as soon as practical. A record shall be kept of each leak detected and repaired including: equipment identification number, date and time the leak was detected and that repair was initiated, and the date of successful repair.

(d) *Polycarbonate production applicability, definitions, and requirements—(1) Applicability—(i) Affected source.* For the polycarbonate production (as defined in paragraph (d)(2) of this section) source category, the affected source shall comprise all emission points, in combination, listed in paragraphs (d)(1)(i)(A) through (D) of this section, that are part of a polycarbonate production process unit located at a major source as defined in section 112(a) of the Act. For the purposes of this rule, a polycarbonate production process unit is a unit that produces polycarbonate by interfacial polymerization from bisphenols and phosgene. Phosgene production units that are associated with polycarbonate production process units are considered to be part of the polycarbonate production process. A phosgene production unit consists of the reactor in which phosgene is formed and all equipment (listed in paragraphs (d)(1)(i)(A) through (D) of this section) downstream of the reactor that provides phosgene for the production of polycarbonate. Therefore, for the purposes of this rule, such a phosgene production unit is considered to be a polycarbonate production process unit.

(A) All storage vessels that store liquids containing organic HAP.

(B) All process vents from continuous and batch unit operations.

(C) All wastewater streams.

(D) Equipment (as defined in § 63.1101 of this subpart) that contains or contacts organic HAP.

(ii) *Compliance schedule.* The compliance schedule, for affected sources as defined in paragraph (d)(1)(i) of this section, is specified in § 63.1102(a).

(2) *Definitions.*

Polycarbonate production means a process engaged in the production of a special class of polyester formed from any dihydroxy compound and any carbonate diester or by ester exchange. Polycarbonate may be produced by solution or emulsion polymerization, although other methods may be used. A typical method for the manufacture of polycarbonate includes the reaction of bisphenol-A with phosgene in the presence of pyridine or other catalyst to form polycarbonate. Methylene chloride or other solvents are used in this polymerization reaction.

(3) *Requirements.* Tables 5 and 6 of this section specify the applicability criteria and standards for existing and new sources within the polycarbonate production source category. The owner or operator must control organic HAP emissions from each affected source emission point by meeting the applicable requirements specified in tables 5 and 6. Applicability assessment procedures and methods are specified in §§ 63.1104 through 63.1107. An owner or

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operator of an affected source is not required to perform tests, TRE calculations or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to

this subpart. General compliance, recordkeeping, and reporting requirements are specified in §§ 63.1108 through 63.1112. Procedures for approval of alternative means of emission limitations are specified in § 63.1113.

TABLE 5 To § 63.1103(D)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION EXISTING AFFECTED SOURCE?

If you own or operate...	And if...	Then you must...
1. A storage vessel with: 75 cubic meters ≤ capacity < 151 cubic meters.	27.6 kilopascals ≤ maximum true vapor pressure of total organic HAP < 76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in § 63.982(a)(1) (storage vessel requirements) of this part; or comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A storage vessel with: 151 cubic meters ≤ capacity.	The maximum true vapor pressure of total organic HAP ≥ 5.2 kilopascals.	Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part.
3. A storage vessel with: 75 cubic meters ≤ capacity < 151 cubic meters.	The maximum true vapor pressure of total organic HAP ≥ 76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(1) (storage vessel requirements) of this part.
4. A process vent from continuous unit operations or a combined vent stream ^a .	The vent stream has a TRE ^{b,c} ≤ 2.7	a. Reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part and vent emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994, of this part, that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per hour ^d , whichever is less stringent; or

TABLE 5 TO § 63.1103(D)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION EXISTING AFFECTED SOURCE?—Continued

If you own or operate...	And if...	Then you must...
5. A process vent from continuous unit operations or a combined vent stream ^a .	2.7 < TRE ^{b,c} ≤ 4.0	<p>b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994 (halogen reduction device requirements) of this part and reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP or TOC to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part; or</p> <p>c. Achieve and maintain a TRE index value greater than 2.7.</p>
6. Equipment as defined under § 63.1101	The equipment contains or contacts ≥ 5 weight-percent total organic HAPe, and operates ≤ 300 hours per year.	Monitor and keep records of equipment operating parameters specified to be monitored under subpart SS, §§ 63.990(c) (absorber, condenser, and carbon adsorber monitoring) or 63.995(c) (other noncombustion systems used as a control device monitoring) of this part.
7. A polycarbonate production process unit that generates process wastewater.	The process wastewater stream is a Group 1 or a Group 2 wastewater stream.	Comply with the requirements of § 63.1106(a).
8. A polycarbonate production process unit that generates maintenance wastewater.	The maintenance wastewater contains organic HAP.	Comply with the requirements of § 63.1106(b).
9. An item of equipment listed in § 63.1106(c)(1).	The item of equipment meets the criteria specified in § 63.1106(c)(1) through (3) and either (c)(4)(i) or (ii).	Comply with the requirements in Table 35 of subpart G of this part.

^a Combined vent streams shall use the applicability determination procedures and methods for process vents from continuous unit operations (§ 63.1104).

^b The TRE equation coefficients for halogenated streams (table 1 of § 63.1104(j)(1)) shall be used to calculate the TRE index value.

^c The TRE is determined according to the procedures specified in § 63.1104(j). If a dryer is manifolded with such vents, and the vent is routed to a recovery, recapture, or combustion device, then the TRE index value for the vent must be calculated based on the properties of the vent stream (including the contributions of the dryer). If a dryer is manifolded with other vents and not routed to a recovery, recapture, or combustion device, then the TRE index value must be calculated excluding the contributions of the dryer. The TRE index value for the dryer must be calculated separately in this case.

^d The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).

^e The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

TABLE 6.—To § 63.1103(d)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION NEW AFFECTED SOURCE?

If you own or operate. . .	And if. . .	Then you must. . .
1. A storage vessel with: 38 cubic meters ≤capacity <151 cubic meters.	13.1 kilopascals ≤maximum true vapor pressure of total organic HAP <76.6 kilopascals.	a. Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process), as specified in §63.982(a)(1) (storage vessel requirements) of this part; or b. Comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) of this part.
2. A storage vessel with: 151 cubic meters ≤capacity.	The maximum true vapor pressure of total organic HAP is ≥5.2 kilopascals.	Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in §63.982(a)(1) (storage vessel requirements) of this part.
3. A storage vessel with: 38 cubic meters ≤capacity <151 cubic meters.	The maximum true vapor pressure of total organic HAP is ≥76.6 kilopascals.	Reduce emissions of total organic HAP by 95 weight-percent by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in §63.982(a)(1) (storage vessel requirements) of this part.

TABLE 6.—TO § 63.1103(D)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A POLYCARBONATE PRODUCTION NEW AFFECTED SOURCE?—Continued

If you own or operate. . .	And if. . .	Then you must. . .
4. A process vent from continuous unit operations or a combined vent stream ^a .	The vent stream has a TRE ^{b,c} ≤9.6	<p>a. Reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part; and</p> <p>Vent emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994, of this part that reduces hydrogen halides and halogens by 99 weight-percent or to less than 0.45 kilograms per hour, whichever is less stringent; or</p> <p>b. Reduce the process vent halogen atom mass emission rate to less than 0.45 kilograms per hour by venting emissions through a closed vent system to a halogen reduction device meeting the requirements of subpart SS, § 63.994 (halogen reduction device requirements) of this part; and</p> <p>Reduce emissions of total organic HAP by 98 weight-percent; or reduce total organic HAP or TOC to a concentration of 20 parts per million by volume; whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of subpart SS, as specified in § 63.982(a)(2) (process vent requirements) of this part; or</p> <p>c. Achieve and maintain a TRE index value greater than 9.6</p>
5. Equipment as defined under § 63.1101	The equipment contains or contacts ≥ 5 weight-percent organic HAPe, and operates ≥ 300 hours per year.	Comply with the requirements of 40 CFR subpart TT (national emission standards for equipment leaks (control level 1)) or subpart UU (national emission standards for equipment leaks (control level 2)) of this part.

^a Combined vent streams shall use the applicability determination procedures and methods for process vents from continuous unit operations (§ 63.1104).

^b The TRE equation coefficients for halogenated streams (table 7 of this subpart) shall be used to calculate the TRE index value.

^c The TRE is determined according to the procedures specified in § 63.1104(j). If a dryer is manifolded with such vents, and the vent is routed to a recovery, recapture, or combustion device, then the TRE index value for the vent must be calculated based on the properties of the vent stream (including the contributions of the dryer). If a dryer is manifolded with other vents and not routed to a recovery, recapture, or combustion device, then the TRE index value must be calculated excluding the contributions of the dryer. The TRE index value for the dryer must be calculated separately in this case.

^d The mass emission rate of halogen atoms contained in organic compounds is determined according to the procedures specified in § 63.1104(i).

^e The weight-percent organic HAP is determined for equipment according to procedures specified in § 63.1107.

[64 FR 34921, June 29, 1999, as amended at 64 FR 63699, 63706, Nov. 22, 1999; 64 FR 71852, Dec. 22, 1999]

§ 63.1104 Process vents from continuous unit operations: applicability assessment procedures and methods.

(a) *General.* The provisions of this section provide calculation and measurement methods for criteria that are