

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in [paragraphs \(b\)\(3\), \(d\), and \(e\)](#) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in [paragraphs \(d\) and \(e\)](#) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in [§ 63.9\(b\)](#).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) **Application for approval of construction or reconstruction.** The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) **General application requirements.**

(i) An owner or operator who is subject to the requirements of [paragraph \(b\)\(3\)](#) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of [§ 63.9\(b\)\(5\)](#). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in [§ 63.2](#) or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the

relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in [paragraphs \(d\)\(2\)](#) and [\(d\)\(3\)](#) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in [paragraphs \(d\)\(1\)\(ii\)\(H\)](#) and [\(d\)\(2\)](#) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in [§ 63.9\(h\)](#) (see [§ 63.9\(h\)\(5\)](#)).

(2) ***Application for approval of construction.*** Each application for approval of construction must include, in addition to the information required in [paragraph \(d\)\(1\)\(ii\)](#) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) ***Application for approval of reconstruction.*** Each application for approval of reconstruction shall include, in addition to the information required in [paragraph \(d\)\(1\)\(ii\)](#) of this section—

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in [paragraphs \(d\)\(3\)\(iii\)](#) through [\(d\)\(3\)\(v\)](#) of this section.

(4) **Additional information.** The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) **Approval of construction or reconstruction.**

(1)

(i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under [paragraph \(d\)](#) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2)

(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of

sufficient information to evaluate an application submitted under [paragraph \(d\)](#) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall—

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in [paragraphs \(b\)\(3\)](#) and [\(d\)](#) of this section if the owner or operator

of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in [paragraph \(e\)\(1\)](#) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this [paragraph \(f\)\(2\)](#) no later than the application deadline specified in [paragraph \(d\)\(1\)](#) of this section (see also [§ 63.9\(b\)\(2\)](#)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in [paragraph \(e\)](#) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this [paragraph \(f\)\(2\)](#).

§ 63.9 Notification requirements.

(b) *Initial notifications.*

(1)

(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source subsequently becomes a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section. Area sources previously subject to major source requirements that become major sources again are also subject to the notification requirements of this paragraph and must submit the notification according to the requirements of [paragraph \(k\)](#) of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under [§ 63.5\(d\) of this subpart](#), if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under [§ 63.5\(d\)](#) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in [§ 63.5\(d\)\(1\)\(i\)](#); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under [§ 63.5\(d\)](#) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in [§ 63.5\(d\)](#), the notification must include the information required on the application for approval of construction or reconstruction as specified in [§ 63.5\(d\)\(1\)\(i\)](#).

(j) ***Change in information already provided.*** Any change in the information already provided under this section shall be provided to the Administrator within 15 calendar days after the

change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this paragraph. The owner or operator may use the application for reclassification with the regulatory authority (*e.g.*, permit application) to fulfill the requirements of this paragraph. A source which reclassified after January 25, 2018, and before January 19, 2021, and has not yet provided the notification of a change in information is required to provide such notification no later than February 2, 2021, according to the requirements of [paragraph \(k\)](#) of this section. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of [paragraph \(k\)](#) of this section. A notification of reclassification must contain the following information:

- (1) The name and address of the owner or operator;
- (2) The address (*i.e.*, physical location) of the affected source;
- (3) An identification of the standard being reclassified from and to (if applicable); and
- (4) Date of effectiveness of the reclassification.

§ 63.987 Flare requirements.

(c) ***Flare monitoring requirements.*** Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flare flame monitoring and compliance records shall be kept as specified in [§ 63.998\(a\)\(1\)](#) and reported as specified in [§ 63.999\(a\)](#).

§ 63.988 Incinerators, boilers, and process heaters.

(b) *Performance test requirements.*

(1) Except as specified in [§ 63.997\(b\)](#), and [paragraph \(b\)\(2\)](#) of this section, the owner or operator shall conduct an initial performance test of any incinerator, boiler, or process heater used to comply with the provisions of a referencing subpart and this subpart according to the procedures in [§ 63.997](#). Performance test records shall be kept as specified in [§ 63.998\(a\)\(2\)](#) and a performance test report shall be submitted as specified in [§ 63.999\(a\)\(2\)](#). As provided in [§ 63.985\(b\)\(1\)](#), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in [§ 63.986\(b\)](#), no performance test is required for equipment leaks.

(2) An owner or operator is not required to conduct a performance test when any of the control devices specified in [paragraphs \(b\)\(2\)\(i\)](#) through [\(iv\)](#) of this section are used.

(i) A hazardous waste incinerator for which the owner or operator has been issued a final permit under [40 CFR part 270](#) and complies with the requirements of [40 CFR part 264](#),

[subpart O](#), or has certified compliance with the interim status requirements of [40 CFR part 265, subpart O](#);

(ii) A boiler or process heater with a design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater;

(iii) A boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel; or

(iv) A boiler or process heater burning hazardous waste for which the owner or operator meets the requirements specified in [paragraph \(b\)\(2\)\(iv\)\(A\)](#) or [\(B\)](#) of this section.

(A) The boiler or process heater has been issued a final permit under [40 CFR part 270](#) and complies with the requirements of [40 CFR part 266, subpart H](#); or

(B) The boiler or process heater has certified compliance with the interim status requirements of [40 CFR part 266, subpart H](#).

§ 63.997 Performance test and compliance assessment requirements for control devices.

(a) **Performance tests and flare compliance assessments.** Where [§§ 63.985](#) through [63.995](#) require, or the owner or operator elects to conduct, a performance test of a control device or a halogen reduction device, or a compliance assessment for a flare, the requirements of [paragraphs \(b\)](#) through [\(d\)](#) of this section apply.

§ 63.998 Recordkeeping requirements.

(a) **Compliance assessment, monitoring, and compliance records** —

(1) **Conditions of flare compliance assessment, monitoring, and compliance records.** Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of flare compliance assessments performed pursuant to [§ 63.987\(b\)](#).

(i) **Flare compliance assessment records.** When using a flare to comply with this subpart, record the information specified in [paragraphs \(a\)\(1\)\(i\)\(A\)](#) through [\(C\)](#) of this section for each flare compliance assessment performed pursuant to [§ 63.987\(b\)](#). As specified in [§ 63.999\(a\)\(2\)\(iii\)\(A\)](#), the owner or operator shall include this information in the flare compliance assessment report.

(A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(B) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance assessment; and

(C) All periods during the flare compliance assessment when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.

(ii) **Monitoring records.** Each owner or operator shall keep up to date and readily accessible hourly records of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present. For transfer racks, hourly records are required only while the transfer rack vent stream is being vented.

(iii) **Compliance records.**

(A) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame or all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in [§ 63.999\(c\)\(3\)](#).

(B) Each owner or operator shall keep records of the times and durations of all periods during which the monitor is not operating.

(2) **Nonflare control device performance test records.**

(i) **Availability of performance test records.** Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to [§ 63.988\(b\)](#), [§ 63.990\(b\)](#), [§ 63.994\(b\)](#), or [§ 63.995\(b\)](#).

(ii) **Nonflare control device and halogen reduction device performance test records.**

(A) **General requirements.** Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the data specified in [paragraphs \(a\)\(2\)\(ii\)\(B\)](#) through [\(C\)](#) of this section, as applicable, measured during each performance test performed pursuant to [§ 63.988\(b\)](#), [§ 63.990\(b\)](#), [§ 63.994\(b\)](#), or [§ 63.995\(b\)](#), and also include that data in the Notification of Compliance Status required under [§ 63.999\(b\)](#). The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, or the outlet concentration of TOC or regulated material is determined.

(B) **Nonflare combustion device.** Where an owner or operator subject to the provisions of this paragraph seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device the information specified in [\(a\)\(2\)\(ii\)\(B\)\(1\)](#) through [\(6\)](#) of this section shall be recorded.

(1) For thermal incinerators, record the fire box temperature averaged over the full period of the performance test.

(2) For catalytic incinerators, record the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test.

(3) For a boiler or process heater with a design heat input capacity less than 44 megawatts and a vent stream that is not introduced with or as the primary fuel, record the fire box temperature averaged over the full period of the performance test.

(4) For an incinerator, record the percent reduction of organic regulated material, if applicable, or TOC achieved by the incinerator determined as specified in [§ 63.997\(e\)\(2\)\(iv\)](#), as applicable, or the concentration of organic regulated material (parts per million by volume, by compound) determined as specified in [§ 63.997\(e\)\(2\)\(iii\)](#) at the outlet of the incinerator.

(5) For a boiler or process heater, record a description of the location at which the vent stream is introduced into the boiler or process heater.

(6) For a boiler or process heater with a design heat input capacity of less than 44 megawatts and where the process vent stream is introduced with combustion air or used as a secondary fuel and is not mixed with the primary fuel, record the percent reduction of organic regulated material or TOC, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in [§ 63.997\(e\)\(2\)\(iii\)](#) at the outlet of the combustion device.

(C) ***Other nonflare control devices.*** Where an owner or operator seeks to use an absorber, condenser, or carbon adsorber as a control device, the information specified in [paragraphs \(a\)\(2\)\(ii\)\(C\)\(1\)](#) through [\(5\)](#) of this section shall be recorded, as applicable.

(1) Where an absorber is used as the control device, the exit specific gravity and average exit temperature of the absorbing liquid averaged over the same time period as the performance test (both measured while the vent stream is normally routed and constituted); or

(2) Where a condenser is used as the control device, the average exit (product side) temperature averaged over the same time period as the performance test while the vent stream is routed and constituted normally; or

(3) Where a carbon adsorber is used as the control device, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the performance test, and temperature of the carbon-bed after each regeneration during the period of the performance test (and within 15 minutes of completion of any cooling cycle or cycles; or

(4) As an alternative to [paragraph \(a\)\(2\)\(ii\)\(C\)\(1\)](#), [\(2\)](#), or [\(3\)](#) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet

of the absorber, condenser, or carbon adsorber averaged over the same time period as the performance test while the vent stream is normally routed and constituted.

(5) For an absorber, condenser, or carbon adsorber used as a control device, the percent reduction of regulated material achieved by the control device or concentration of regulated material (parts per million by volume, by compound) at the outlet of the control device.

(D) **Halogen reduction devices.** When using a scrubber following a combustion device to control a halogenated vent stream, record the information specified in [paragraphs \(a\)\(2\)\(ii\)\(D\)\(1\)](#) through [\(3\)](#) of this section.

(1) The percent reduction or scrubber outlet mass emission rate of total hydrogen halides and halogens as specified in [§ 63.997\(e\)\(3\)](#).

(2) The pH of the scrubber effluent averaged over the time period of the performance test; and

(3) The scrubber liquid-to-gas ratio averaged over the time period of the performance test.

(3) **Recovery device monitoring records during TRE index value determination.** For process vents that require control of emissions under a referencing subpart, owners or operators using a recovery device to maintain a TRE above a level specified in the referencing subpart shall maintain the continuous records specified in [paragraph \(a\)\(3\)\(i\)](#) through [\(v\)](#) of this section, as applicable, and submit reports as specified in [§ 63.999\(a\)\(2\)\(iii\)\(C\)](#).

(i) Where an absorber is the final recovery device in the recovery system and the saturated scrubbing fluid and specific gravity of the scrubbing fluid is greater than or equal to 0.02 specific gravity units, the exit specific gravity (or alternative parameter that is a measure of the degree of absorbing liquid saturation if approved by the Administrator) and average exit temperature of the absorbing liquid averaged over the same time period as the TRE index value determination (both measured while the vent stream is normally routed and constituted); or

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature averaged over the same time period as the TRE index value determination while the vent stream is routed and constituted normally; or

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total regeneration stream mass flow during each carbon-bed regeneration cycle during the period of the TRE index value determination, and temperature of the carbon-bed after each regeneration during the period of the TRE index value determination (and within 15 minutes of completion of any cooling cycle or cycles); or

(iv) As an alternative to [paragraph \(a\)\(3\)\(i\)](#), [\(ii\)](#), or [\(iii\)](#) of this section, the concentration level or reading indicated by an organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber averaged over the same time period as the TRE index value determination while the vent stream is normally routed and constituted.

(v) All measurements and calculations performed to determine the TRE index value of the vent stream as specified in a referencing subpart.

(4) **Halogen concentration records.** Record the halogen concentration in the vent stream determined according to the procedures specified in a referencing subpart. Submit this record in the Notification of Compliance Status, as specified in [§ 63.999\(b\)\(4\)](#). If the owner or operator designates the vent stream as halogenated, then this shall be recorded and reported in the Notification of Compliance Status report.

(b) Continuous records and monitoring system data handling —

(1) **Continuous records.** Where this subpart requires a continuous record, the owner or operator shall maintain a record as specified in [paragraphs \(b\)\(1\)\(i\)](#) through [\(iv\)](#) of this section, as applicable:

(i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or

(ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.

(iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.

(iv) A record as required by an alternative approved under a referencing subpart.

(2) **Excluded data.** Monitoring data recorded during periods identified in [paragraphs \(b\)\(2\)\(i\)](#) through [\(iii\)](#) of this section shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.

(i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(iii) Startups, shutdowns, and malfunctions, if the owner or operator operates the source during such periods in accordance with [§ 63.1111\(a\)](#) and maintains the records specified in [paragraph \(d\)\(3\)](#) of this section.

(3) **Records of daily averages.** In addition to the records specified in paragraph (a), owners or operators shall keep records as specified in [paragraphs \(b\)\(3\)\(i\)](#) and [\(ii\)](#) of this section and submit reports as specified in [§ 63.999\(c\)](#), unless an alternative recordkeeping system has been requested and approved under a referencing subpart.

(i) Except as specified in [paragraph \(b\)\(3\)\(ii\)](#) of this section, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of [paragraph \(b\)\(2\)](#) of this section for each operating day and retained for 5 years.

(A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.

(B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.

(ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in [paragraph \(b\)\(1\)\(iii\)](#) of this section.

(4) [Reserved]

(5) **Alternative recordkeeping.** For any parameter with respect to any item of equipment associated with a process vent or transfer rack (except low throughput transfer loading racks), the owner or operator may implement the recordkeeping requirements in [paragraphs \(b\)\(5\)\(i\)](#) or [\(ii\)](#) of this section as alternatives to the recordkeeping provisions listed in [paragraphs \(b\)\(1\)](#) through [\(3\)](#) of this section. The owner or operator shall retain each record required by [paragraphs \(b\)\(5\)\(i\)](#) or [\(ii\)](#) of this section as provided in a referencing subpart.

(i) The owner or operator may retain only the daily average value, and is not required to retain more frequently monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of [paragraphs \(b\)\(5\)\(i\)\(A\)](#) through [\(E\)](#) of this section are met. The owner or operator shall notify the Administrator in the Notification of Compliance Status as specified in [§ 63.999\(b\)\(5\)](#) or, if the Notification of Compliance Status has already been submitted, in the Periodic Report immediately

preceding implementation of the requirements of this paragraph, as specified in [§ 63.999\(c\)\(6\)\(iv\)](#).

(A) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns or malfunctions (e.g., a temperature reading of $-200\text{ }^{\circ}\text{C}$ on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(B) The monitoring system generates a running average of the monitoring values, updated at least hourly throughout each operating day, that have been obtained during that operating day, and the capability to observe this average is readily available to the Administrator on-site during the operating day. The owner or operator shall record the occurrence of any period meeting the criteria in [paragraphs \(b\)\(5\)\(i\)\(B\)\(1\)](#) through [\(3\)](#) of this section. All instances in an operating day constitute a single occurrence.

(1) The running average is above the maximum or below the minimum established limits;

(2) The running average is based on at least six one-hour average values; and

(3) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.

(C) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.

(D) The monitoring system will alert the owner or operator by an alarm, if the running average parameter value calculated under [paragraph \(b\)\(5\)\(i\)\(B\)](#) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(E) The owner or operator shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of [paragraph \(b\)\(5\)\(i\)](#) of this section, at the times specified in [paragraphs \(b\)\(5\)\(i\)\(E\)\(1\)](#) through [\(3\)](#) of this section. The owner or operator shall document that the required verifications occurred.

(1) Upon initial installation.

(2) Annually after initial installation.

(3) After any change to the programming or equipment constituting the monitoring system that might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(F) The owner or operator shall retain the records identified in [paragraphs \(b\)\(5\)\(i\)\(F\)\(1\)](#) through [\(4\)](#) of this section.

(1) Identification of each parameter, for each item of equipment, for which the owner or operator has elected to comply with the requirements of [paragraph \(b\)\(5\)\(i\)](#) of this section.

(2) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of [paragraph \(b\)\(5\)\(i\)\(A\)](#) through [\(E\)](#) of this section. The description shall identify the location and format (e.g., on-line storage; log entries) for each required record. If the description changes, the owner or operator shall retain both the current and the most recent superseded description. The description, and the most recent superseded description, shall be retained as provided in the subpart that references this subpart, except as provided in [paragraph \(b\)\(5\)\(i\)\(F\)\(1\)](#) of this section.

(3) A description, and the date, of any change to the monitoring system that would reasonably be expected to affect its ability to comply with the requirements of [paragraph \(b\)\(5\)\(i\)](#) of this section.

(4) Owners and operators subject to [paragraph \(b\)\(5\)\(i\)\(F\)\(2\)](#) of this section shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. The current description shall be retained on-site at all times or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain the most recent superseded description at least until 5 years from the date of its creation. The superseded description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after being superseded. Thereafter, the superseded description may be stored off-site.

(ii) If an owner or operator has elected to implement the requirements of [paragraph \(b\)\(5\)\(i\)](#) of this section, and a period of 6 consecutive months has passed without an excursion as defined in [paragraph \(b\)\(6\)\(i\)](#) of this section, the owner or operator is no longer required to record the daily average value for that parameter for that unit of equipment, for any operating day when the daily average value is less than the maximum, or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring were required and/or approved by the Administrator.

(A) If the owner or operator elects not to retain the daily average values, the owner or operator shall notify the Administrator in the next Periodic Report, as specified in [§ 63.999\(c\)\(6\)\(i\)](#). The notification shall identify the parameter and unit of equipment.

(B) If there is an excursion as defined in [paragraph \(b\)\(6\)\(i\)](#) of this section on any operating day after the owner or operator has ceased recording daily averages as provided in [paragraph \(b\)\(5\)\(ii\)](#) of this section, the owner or operator shall immediately resume retaining the daily average value for each operating day, and shall notify the Administrator in the next Periodic Report, as specified in [§ 63.999\(c\)](#). The owner or operator shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion as defined in [paragraph \(b\)\(6\)\(i\)](#) of this section.

(C) The owner or operator shall retain the records specified in [paragraphs \(b\)\(5\)\(i\)\(A\)](#) through [\(F\)](#) of this section for the duration specified in a referencing subpart. For any week, if compliance with [paragraphs \(b\)\(5\)\(i\)\(A\)](#) through [\(D\)](#) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.

(6)

(i) For the purposes of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in [paragraphs \(b\)\(6\)\(i\)\(A\)](#) and [\(B\)](#) of this section.

(A) The daily average value during any startup, shutdown, or malfunction shall not be considered an excursion if the owner or operator operates the source during such periods in accordance with [§ 63.1111\(a\)](#) and maintains the records specified in [paragraph \(d\)\(3\)](#) of this section.

(B) An excused excursion, as described in [paragraph \(b\)\(6\)\(ii\)](#), does not count toward the number of excursions for the purposes of this subpart.

(ii) One excused excursion for each control device or recovery device for each semiannual period is allowed. If a source has developed a startup, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with [§ 63.1111\(a\)](#)) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.

(c) ***Nonflare control and recovery device regulated source monitoring records*** —

(1) **Monitoring system records.** For process vents and high throughput transfer racks, the owner or operator subject to this subpart shall keep the records specified in this paragraph, as well as records specified elsewhere in this subpart.

(i) For a CPMS used to comply with this part, a record of the procedure used for calibrating the CPMS.

(ii) For a CPMS used to comply with this subpart, records of the information specified in [paragraphs \(c\)\(ii\)\(A\) through \(H\)](#) of this section, as indicated in a referencing subpart.

(A) The date and time of completion of calibration and preventive maintenance of the CPMS.

(B) The “as found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading and a “no adjustment” statement otherwise.

(C) The start time and duration or start and stop times of any periods when the CPMS is inoperative.

(D) Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with this subpart during which excess emissions (as defined in a referencing subpart) occur.

(E) For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a “checklist,” or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(F) Records documenting each start-up, shutdown, and malfunction event.

(G) Records of CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.

(H) Records of the total duration of operating time.

(2) **Combustion control and halogen reduction device monitoring records.**

(i) Each owner or operator using a combustion control or halogen reduction device to comply with this subpart shall keep the following records up-to-date and readily accessible, as applicable. Continuous records of the equipment operating parameters specified to be monitored under [§§ 63.988\(c\)](#) (incinerator, boiler, and process heater monitoring), [63.994\(c\)](#) (halogen reduction device monitoring), and [63.995\(c\)](#) (other combustion systems used as control device monitoring) or approved by the Administrator in accordance with a referencing subpart.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in [paragraph \(b\)\(3\)\(i\)](#) of this section. For catalytic incinerators, record the daily average of the temperature upstream of the catalyst bed and the daily average of the temperature differential across the bed. For halogen scrubbers record the daily average pH and the liquid-to-gas ratio.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to [§ 63.996\(c\)\(6\)](#).

(3) *Monitoring records for recovery devices, absorbers, condensers, carbon adsorbers or other noncombustion systems used as control devices.*

(i) Each owner or operator using a recovery device to achieve and maintain a TRE index value greater than the control applicability level specified in the referencing subpart but less than 4.0 or using an absorber, condenser, carbon adsorber or other non-combustion system as a control device shall keep readily accessible, continuous records of the equipment operating parameters specified to be monitored under [§§ 63.990\(c\)](#) (absorber, condenser, and carbon adsorber monitoring), [63.993\(c\)](#) (recovery device monitoring), or [63.995\(c\)](#) (other noncombustion systems used as a control device monitoring) or as approved by the Administrator in accordance with a referencing subpart. For transfer racks, continuous records are required while the transfer vent stream is being vented.

(ii) Each owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in [paragraph \(b\)\(3\)\(i\)](#) of this section. If carbon adsorber regeneration stream flow and carbon bed regeneration temperature are monitored, the records specified in [paragraphs \(c\)\(3\)\(ii\)\(A\)](#) and [\(B\)](#) of this section shall be kept instead of the daily averages.

(A) Records of total regeneration stream mass or volumetric flow for each carbon-bed regeneration cycle.

(B) Records of the temperature of the carbon bed after each regeneration and within 15 minutes of completing any cooling cycle.

(iii) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to [§ 63.996\(c\)\(6\)](#).

(d) *Other records* —

(1) ***Closed vent system records.*** For closed vent systems the owner or operator shall record the information specified in [paragraphs \(d\)\(1\)\(i\)](#) through [\(iv\)](#) of this section, as applicable.

(i) For closed vent systems collecting regulated material from a regulated source, the owner or operator shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by [§ 63.983\(b\)\(2\)\(ii\)](#) or [\(iii\)](#) of this section.

(ii) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either [paragraph \(d\)\(1\)\(ii\)\(A\)](#) or [\(B\)](#) of this section, as applicable.

(A) Hourly records of whether the flow indicator specified under [§ 63.983\(a\)\(3\)\(i\)](#) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

(B) Where a seal mechanism is used to comply with [§ 63.983\(a\)\(3\)\(ii\)](#), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

(iii) For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in [§ 63.983\(d\)\(2\)](#), the information specified in [paragraphs \(d\)\(1\)\(iii\)\(A\)](#) through [\(F\)](#) of this section shall be recorded and kept for 5 years.

(A) The instrument and the equipment identification number and the operator name, initials, or identification number.

(B) The date the leak was detected and the date of the first attempt to repair the leak.

(C) The date of successful repair of the leak.

(D) The maximum instrument reading measured by the procedures in [§ 63.983\(c\)](#) after the leak is successfully repaired or determined to be nonrepairable.

(E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(F) Copies of the Periodic Reports as specified in [§ 63.999\(c\)](#), if records are not maintained on a computerized database capable of generating summary reports from the records.

(iv) For each instrumental or visual inspection conducted in accordance with [§ 63.983\(b\)\(1\)](#) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(2) ***Storage vessel and transfer rack records.*** An owner or operator shall keep readily accessible records of the information specified in [paragraphs \(d\)\(2\)\(i\)](#) and [\(ii\)](#) of this section, as applicable.

(i) A record of the measured values of the parameters monitored in accordance with [§ 63.985\(c\)](#) or [§ 63.987\(c\)](#).

(ii) A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of [§ 63.983\(a\)](#), [§ 63.985\(a\)](#), or [§ 63.987\(a\)](#), as applicable, due to the planned routine maintenance. Such a record shall include the information specified in [paragraphs \(d\)\(2\)\(ii\)\(A\)](#) through [\(C\)](#) of this section. This information shall be submitted in the Periodic Reports as specified in [§ 63.999\(c\)\(4\)](#).

(A) The first time of day and date the requirements of [§ 63.983\(a\)](#), [§ 63.985\(a\)](#), or [§ 63.987\(a\)](#), as applicable, were not met at the beginning of the planned routine maintenance, and

(B) The first time of day and date the requirements of [§ 63.983\(a\)](#), [§ 63.985\(a\)](#), or [§ 63.987\(a\)](#), as applicable, were met at the conclusion of the planned routine maintenance.

(C) A description of the type of maintenance performed.

(3) ***Regulated source and control equipment start-up, shutdown and malfunction records.***

(i) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in a referencing subpart) occur.

(ii) For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(4) ***Equipment leak records.*** The owner or operator shall maintain records of the information specified in [paragraphs \(d\)\(4\)\(i\)](#) and [\(ii\)](#) of this section for closed vent systems and control

devices if specified by the equipment leak provisions in a referencing subpart. The records specified in [paragraph \(d\)\(4\)\(i\)](#) of this section shall be retained for the life of the equipment. The records specified in [paragraph \(d\)\(4\)\(ii\)](#) of this section shall be retained for 5 years.

(i) The design specifications and performance demonstrations specified in [paragraphs \(d\)\(4\)\(i\)\(A\)](#) through [\(C\)](#) of this section.

(A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.

(B) The dates and descriptions of any changes in the design specifications.

(C) A description of the parameter or parameters monitored, as required in a referencing subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(ii) Records of operation of closed vent systems and control devices, as specified in [paragraphs \(d\)\(4\)\(ii\)\(A\)](#) through [\(C\)](#) of this section.

(A) Dates and durations when the closed vent systems and control devices required are not operated as designed as indicated by the monitored parameters.

(B) Dates and durations during which the monitoring system or monitoring device is inoperative.

(C) Dates and durations of start-ups and shutdowns of control devices required in this subpart.

(5) ***Records of monitored parameters outside of range.*** The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.

§ 63.1038 Recordkeeping requirements.

(b) *General equipment leak records.*

(1) As specified in [§ 63.1022\(a\)](#) and [\(b\)](#), the owner or operator shall keep general and specific equipment identification if the equipment is not physically tagged and the owner or operator is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in [§ 63.1022\(c\)\(4\)](#) for any equipment that is designated as unsafe- or difficult-to-monitor.

(3) The owner or operator shall maintain a record of the identity and an explanation as specified in [§ 63.1022\(d\)\(2\)](#) for any equipment that is designated as unsafe-to-repair.

(4) As specified in [§ 63.1022\(e\)](#), the owner or operator shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million.

(5) The owner or operator shall keep records associated with the determination that equipment is in heavy liquid service as specified in [§ 63.1022\(f\)](#).

(6) The owner or operator shall keep records for leaking equipment as specified in [§ 63.1023\(e\)\(2\)](#).

(7) The owner or operator shall keep records for leak repair as specified in [§ 63.1024\(f\)](#) and records for delay of repair as specified in [§ 63.1024\(d\)](#).

(c) *Specific equipment leak records.*

(1) For valves, the owner or operator shall maintain the records specified in [paragraphs \(c\)\(1\)\(i\)](#) and [\(c\)\(1\)\(ii\)](#) of this section.

(i) The monitoring schedule for each process unit as specified in [§ 63.1025\(b\)\(3\)\(vi\)](#).

(ii) The valve subgrouping records specified in [§ 63.1025\(b\)\(4\)\(iv\)](#), if applicable.

(2) For pumps, the owner or operator shall maintain the records specified in [paragraphs \(c\)\(2\)\(i\)](#) through [\(c\)\(2\)\(iii\)](#) of this section.

(i) Documentation of pump visual inspections as specified in [§ 63.1026\(b\)\(4\)](#).

(ii) Documentation of dual mechanical seal pump visual inspections as specified in [§ 63.1026\(e\)\(1\)\(v\)](#).

(iii) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes, as specified in [§ 63.1026\(e\)\(1\)\(i\)](#).

(3) For connectors, the owner or operator shall maintain the monitoring schedule for each process unit as specified in [§ 63.1027\(b\)\(3\)\(v\)](#).

(4) For agitators, the owner or operator shall maintain the following records:

(i) Documentation of agitator seal visual inspections as specified in [§ 63.1028](#); and

(ii) For the criteria as to the presence and frequency of drips for agitators, the owner or operator shall keep records of the design criteria and explanations and any changes and the reason for the changes, as specified in [§ 63.1028\(e\)\(1\)\(vi\)](#).

(5) For pressure relief devices in gas and vapor or light liquid service, the owner or operator shall keep records of the dates and results of monitoring following a pressure release, as specified in [§ 63.1030\(c\)\(3\)](#).

(6) For compressors, the owner or operator shall maintain the records specified in [paragraphs \(c\)\(6\)\(i\)](#) and [\(c\)\(6\)\(ii\)](#) of this section.

(i) For criteria as to failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes and the reason for the changes, as specified in [§ 63.1031\(d\)\(2\)](#).

(ii) For compressors operating under the alternative compressor standard, record the dates and results of each compliance test as specified in [§ 63.1031\(f\)\(2\)](#).

(7) For a pump QIP program, the owner or operator shall maintain the records specified in [paragraphs \(c\)\(7\)\(i\)](#) through [\(c\)\(7\)\(v\)](#) of this section.

(i) Individual pump records as specified in [§ 63.1035\(d\)\(2\)](#).

(ii) Trial evaluation program documentation as specified in [§ 63.1035\(d\)\(6\)\(iii\)](#).

(iii) Engineering evaluation documenting the basis for judgement that superior emission performance technology is not applicable as specified in [§ 63.1035\(d\)\(6\)\(vi\)](#).

(iv) Quality assurance program documentation as specified in [§ 63.1035\(d\)\(7\)](#).

(v) QIP records as specified in [§ 63.1035\(e\)](#).

(8) For process units complying with the batch process unit alternative, the owner or operator shall maintain the records specified in [paragraphs \(c\)\(8\)\(i\)](#) and [\(c\)\(8\)\(ii\)](#) of this section.

(i) Pressure test records as specified in [§ 63.1036\(b\)\(7\)](#).

(ii) Records for equipment added to the process unit as specified in [§ 63.1036\(d\)](#).

(9) For process units complying with the enclosed-vented process unit alternative, the owner or operator shall maintain the records for enclosed-vented process units as specified in [§ 63.1037\(b\)](#).

§ 63.1065 Recordkeeping requirements.

The owner or operator shall keep the records required in [paragraph \(a\)](#) of this section for as long as liquid is stored. Records required in [paragraphs \(b\)](#), [\(c\)](#) and [\(d\)](#) of this section shall be kept for at least 5 years. Records shall be kept in such a manner that they can be readily accessed within 24 hours. Records may be kept in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(a) **Vessel dimensions and capacity.** A record shall be kept of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.

(b) **Inspection results.** Records of floating roof inspection results shall be kept as specified in [paragraphs \(b\)\(1\)](#) and [\(b\)\(2\)](#) of this section.

(1) If the floating roof passes inspection, a record shall be kept that includes the information specified in [paragraphs \(b\)\(1\)\(i\)](#) and [\(b\)\(1\)\(ii\)](#) of this section. If the floating roof fails inspection, a record shall be kept that includes the information specified in [paragraphs \(b\)\(1\)\(i\)](#) through [\(b\)\(1\)\(v\)](#) of this section.

(i) Identification of the storage vessel that was inspected.

(ii) The date of the inspection.

(iii) A description of all inspection failures.

(iv) A description of all repairs and the dates they were made.

(v) The date the storage vessel was removed from service, if applicable.

(2) A record shall be kept of EFR seal gap measurements, including the raw data obtained and any calculations performed.

(c) **Floating roof landings.** The owner or operator shall keep a record of the date when a floating roof is set on its legs or other support devices. The owner or operator shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous.

§ 63.1089 What records must I keep?

You must keep the records in [paragraphs \(a\)](#) through [\(e\)](#) of this section, according to the requirements of [§ 63.1109\(c\)](#).

(a) Monitoring data required by [§ 63.1086](#) that indicate a leak, the date the leak was detected, or, if applicable, the basis for determining there is no leak.

(b) The dates of efforts to repair leaks.

(c) The method or procedures used to confirm repair of a leak and the date the repair was confirmed.

(d) At any time before the compliance dates specified in [§ 63.1081\(a\)](#), you must keep documentation of delay of repair as specified in [§ 63.1088\(a\)](#) through [\(c\)](#). Beginning no later than the compliance dates specified in [§ 63.1081\(a\)](#), the requirement to keep documentation of

delay of repair as specified in [§ 63.1088\(a\)](#) through [\(c\)](#) no longer applies; instead, you must keep documentation of delay of repair as specified in [paragraphs \(d\)\(1\)](#) through [\(4\)](#) of this section.

(1) The reason(s) for delaying repair.

(2) A schedule for completing the repair as soon as practical.

(3) The date and concentration or mass emissions rate of the leak as first identified and the results of all subsequent monitoring events during the delay of repair.

(4) An estimate of the potential total hydrocarbon emissions from the leaking heat exchange system or heat exchanger for each required delay of repair monitoring interval following the applicable procedures in [paragraphs \(d\)\(4\)\(i\)](#) through [\(iii\)](#) of this section.

(i) If you comply with the total strippable hydrocarbon concentration leak action level, as specified in [§ 63.1086\(e\)\(4\)](#), you must calculate the mass emissions rate by complying with the requirements of [§ 63.1086\(e\)\(3\)\(ii\)](#) or by determining the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate to the cooling tower. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. If you determine the mass flow rate of the cooling water, calculate the mass emissions rate by converting the stripping gas leak concentration (in ppmv as methane) to an equivalent liquid concentration, in parts per million by weight (ppmw), using equation 7-1 from “Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources” (incorporated by reference—see [§ 63.14](#)) and multiply the equivalent liquid concentration by the mass flow rate of the cooling water.

(ii) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential total hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the monitoring interval by multiplying the mass emissions rate, determined in [§ 63.1086\(e\)\(3\)\(ii\)](#) or [paragraph \(d\)\(4\)\(i\)](#) of this section, by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have been completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(iii) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential total hydrocarbon emissions for the leaking heat exchange system or heat exchanger for the final delay of repair monitoring interval by multiplying the duration of the final delay of repair monitoring interval by the mass emissions rate determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to re-monitoring to verify the leak

was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

§ 63.1090 What reports must I submit?

If you delay repair for your heat exchange system, you must report the delay of repair in the semiannual report required by [§ 63.1110\(e\)](#). If the leak remains unrepaired, you must continue to report the delay of repair in semiannual reports until you repair the leak. Except as provided in [paragraph \(f\)](#) of this section, you must include the information in [paragraphs \(a\)](#) through [\(e\)](#) of this section in the semiannual report.

- (a) The fact that a leak was detected, and the date that the leak was detected.
- (b) Whether or not the leak has been repaired.
- (c) The reasons for delay of repair. If you delayed the repair as provided in [§ 63.1088\(b\)](#), documentation of emissions estimates.
- (d) If a leak remains unrepaired, the expected date of repair.
- (e) If a leak is repaired, the date the leak was successfully repaired.
- (f) For heat exchange systems subject to [§ 63.1085\(e\)](#) and [\(f\)](#), Periodic Reports must include the information specified in [paragraphs \(f\)\(1\)](#) through [\(5\)](#) of this section, in lieu of the information specified in [paragraphs \(a\)](#) through [\(e\)](#) of this section.
 - (1) The number of heat exchange systems at the plant site subject to the monitoring requirements in [§ 63.1085\(e\)](#) and [\(f\)](#) during the reporting period.
 - (2) The number of heat exchange systems subject to the monitoring requirements in [§ 63.1085\(e\)](#) and [\(f\)](#) at the plant site found to be leaking during the reporting period.
 - (3) For each monitoring location where the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate was determined to be equal to or greater than the applicable leak definitions specified in [§ 63.1086\(e\)\(5\)](#) during the reporting period, identification of the monitoring location (*e.g.*, unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;
 - (4) For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate measured during re-monitoring to verify repair, and the re-monitoring date (*i.e.*, the effective date of repair); and

(5) For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate of the potential total hydrocarbon emissions over the reporting period associated with the delayed repair.

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

(e) *Ethylene production applicability, definitions, and requirements* —

(10) **Storage vessel degassing.** Beginning no later than the compliance dates specified in [§ 63.1102\(c\)](#), for each storage vessel subject to paragraph (b) or (c) of table 7 to [§ 63.1103\(e\)](#), the owner or operator must comply with [paragraphs \(e\)\(10\)\(i\)](#) through [\(iv\)](#) of this section during storage vessel shutdown operations (*i.e.*, emptying and degassing of a storage vessel) until the vapor space concentration in the storage vessel is less than 10 percent of the LEL. The owner or operator must determine the concentration using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

(i) Remove liquids from the storage vessel as much as practicable;

(ii) Comply with one of the following:

(A) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to a flare and meet the requirements of [§ 63.983](#) and [paragraphs \(e\)\(4\)](#) and [\(9\)](#) of this section.

(B) Reduce emissions of total organic HAP by 98 weight-percent by venting emissions through a closed vent system to any combination of non-flare control devices and meet the requirements specified in [§ 63.982\(c\)\(1\)](#) and [paragraph \(e\)\(9\)](#) of this section.

(C) Reduce emissions of total organic HAP by 98 weight-percent by routing emissions to a fuel gas system or process and meet the requirements specified in [§ 63.982\(d\)](#) and [paragraph \(e\)\(9\)](#) of this section.

(iii) Maintain records necessary to demonstrate compliance with the requirements in [§ 63.1108\(a\)\(4\)\(ii\)](#) including, if appropriate, records of existing standard site procedures used to empty and degas (deinventory) equipment for safety purposes.

(iv) For floating roof storage vessels, the storage vessel may be opened to set up equipment (e.g., making connections to a temporary control device) for the shutdown operations but must not be actively degassed during this time period.

§ 63.1105 Transfer racks.

- (i) **Recordkeeping.** The owner or operator of a transfer rack shall record that the verification of DOT tank certification or Method 27 of appendix A to 40 CFR part 60 testing required in [§ 63.84\(c\)](#) has been performed. Various methods for the record of verification can be used, such as a check-off on a log sheet, a list of DOT serial numbers or Method 27 data, or a position description for gate security showing that the security guard will not allow any trucks on-site that do not have the appropriate documentation.

§ 63.1109 Recordkeeping requirements.

(a) **Maintaining notifications, records, and reports.** Except as provided in [paragraph \(b\)](#) of this section, the owner or operator of each affected source subject to this subpart shall keep copies of notifications, reports and records required by this subpart and subparts referenced by this subpart for at least 5 years, unless otherwise specified under this subpart.

(e) **Ethylene production flare records.** For each flare subject to the requirements in [§ 63.1103\(e\)\(4\)](#), owners or operators must keep records specified in [paragraphs \(e\)\(1\)](#) through [\(15\)](#) of this section in lieu of the information required in [§ 63.998\(a\)\(1\)](#) of subpart SS.

(1) Retain records of the output of the monitoring device used to detect the presence of a pilot flame or flare flame as required in [§ 63.670\(b\)](#) of subpart CC and the presence of a pilot flame as required in [§ 63.1103\(e\)\(4\)\(vii\)\(D\)](#) for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one minute that no pilot flame or flare flame is present when regulated material is routed to a flare for a minimum of 5 years. For each pressure-assisted multi-point flare that uses cross-lighting, retain records of each 15-minute block during which there was at least one minute that no pilot flame is present on each stage when regulated material is routed to a flare for a minimum of 5 years. You may reduce the collected minute-by-minute data to a 15-minute block basis with an indication of whether there was at least one minute where no pilot flame or flare flame was present.

(2) Retain records of daily visible emissions observations as specified in [paragraphs \(e\)\(2\)\(i\)](#) through [\(iv\)](#) of this section, as applicable, for a minimum of 3 years.

(i) To determine when visible emissions observations are required, the record must identify all periods when regulated material is vented to the flare.

(ii) If visible emissions observations are performed using Method 22 of [40 CFR part 60, appendix A-7](#), then the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and whether it was a 5-minute or 2-hour observation. Record the date and start time of each visible emissions observation.

(iii) If a video surveillance camera is used pursuant to [§ 63.670\(h\)\(2\)](#) of subpart CC, then the record must include all video surveillance images recorded, with time and date stamps.

(iv) For each 2-hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, then the record must include the date and start and end time of the 2-hour period and an estimate of the cumulative number of minutes in the 2-hour period for which emissions were visible.

(3) The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and premix assist air specified to be monitored under [§ 63.670\(i\)](#) of subpart CC, along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, then retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain records of the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, then retain records of the 15-minute block average temperature, pressure, and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain records of the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

(4) The flare vent gas compositions specified to be monitored under [§ 63.670\(j\)](#) of subpart CC. Retain records of individual component concentrations from each compositional analysis for a minimum of 2 years. If an NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

(5) Each 15-minute block average operating parameter calculated following the methods specified in [§ 63.670\(k\)](#) through [\(n\)](#) of subpart CC, as applicable.

(6) All periods during which operating values are outside of the applicable operating limits specified in [§ 63.670\(d\)](#) through [\(f\)](#) of subpart CC and [§ 63.1103\(e\)\(4\)\(vii\)](#) when regulated material is being routed to the flare.

(7) All periods during which the owner or operator does not perform flare monitoring according to the procedures in [§ 63.670\(g\)](#) through [\(j\)](#) of subpart CC.

(8) For pressure-assisted multi-point flares, if a stage of burners on the flare uses cross-lighting, then a record of any changes made to the distance between burners.

(9) For pressure-assisted multi-point flares, all periods when the pressure monitor(s) on the main flare header show burners are operating outside the range of the manufacturer's specifications. Indicate the date and time for each period, the pressure measurement, the stage(s) and number of burners affected, and the range of manufacturer's specifications.

(10) For pressure-assisted multi-point flares, all periods when the staging valve position indicator monitoring system indicates a stage of the pressure-assisted multi-point flare should not be in operation and when a stage of the pressure-assisted multi-point flare should be in operation and is not. Indicate the date and time for each period, whether the stage was

supposed to be open, but was closed or vice versa, and the stage(s) and number of burners affected.

(11) Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

(12) Records when the flow of vent gas exceeds the smokeless capacity of the flare, including start and stop time and dates of the flaring event.

(13) Records of the root cause analysis and corrective action analysis conducted as required in [§ 63.670\(o\)\(3\)](#) of subpart CC and [§ 63.1103\(e\)\(4\)\(iv\)](#), including an identification of the affected flare, the date and duration of the event, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under [§ 63.670\(o\)\(5\)\(i\)](#) of subpart CC.

(14) For any corrective action analysis for which implementation of corrective actions are required in [§ 63.670\(o\)\(5\)](#) of subpart CC, a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(15) Records described in [§ 63.10\(b\)\(2\)\(vi\)](#).

(f) **Ethylene production maintenance vent records.** For each maintenance vent opening subject to the requirements in [§ 63.1103\(e\)\(5\)](#), the owner or operator must keep the applicable records specified in [\(f\)\(1\)](#) through [\(5\)](#) of this section.

(1) The owner or operator must maintain standard site procedures used to deinventory equipment for safety purposes (*e.g.*, hot work or vessel entry procedures) to document the procedures used to meet the requirements in [§ 63.1103\(e\)\(5\)](#). The current copy of the procedures must be retained and available on-site at all times. Previous versions of the standard site procedures, as applicable, must be retained for 5 years.

(2) If complying with the requirements of [§ 63.1103\(e\)\(5\)\(i\)\(A\)](#) and the concentration of the vapor at the time of the vessel opening exceeds 10 percent of its LEL, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and the concentration of the vapor at the time of the vessel opening.

(3) If complying with the requirements of [§ 63.1103\(e\)\(5\)\(i\)\(B\)](#) and either the vessel pressure at the time of the vessel opening exceeds 5 psig or the concentration of the vapor at the time of the active purging was initiated exceeds 10 percent of its LEL, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, the pressure of the vessel or equipment at the time of

discharge to the atmosphere and, if applicable, the concentration of the vapors in the equipment when active purging was initiated.

(4) If complying with the requirements of § 63.1103(e)(5)(i)(C), records of the estimating procedures used to determine the total quantity of VOC in equipment and the type and size limits of equipment that contain less than 50 pounds of VOC at the time of maintenance vent opening. For each maintenance vent opening of equipment that contains greater than 50 pounds of VOC for which the deinventory procedures specified in [paragraph \(f\)\(1\)](#) of this section are not followed or for which the equipment opened exceeds the type and size limits established in the records specified in this paragraph, records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere.

(5) If complying with the requirements of § 63.1103(e)(5)(i)(D), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting actions taken to comply with other applicable alternatives and why utilization of this alternative was required, the date of maintenance vent opening, the equipment pressure and concentration of the vapors in the equipment at the time of discharge, an indication of whether active purging was performed and the pressure of the equipment during the installation or removal of the blind if active purging was used, the duration the maintenance vent was open during the blind installation or removal process, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening.

(g) **Ethylene production bypass line records.** For each flow event from a bypass line subject to the requirements in § 63.1103(e)(6), the owner or operator must maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements specified in Table 7 to § 63.1103(e), the owner or operator must include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.

(h) **Decoking operation of ethylene cracking furnace records.** For each decoking operation of an ethylene cracking furnace subject to the standards in § 63.1103(e)(7) and (8), the owner or operator must keep the records specified in [paragraphs \(h\)\(1\)](#) through [\(6\)](#) of this section.

(1) Records that document the day and time each inspection specified in § 63.1103(e)(7)(i) took place, the results of each inspection, and any repairs made to correct the flame impingement; and for any repair that is delayed beyond 1 calendar day, the records specified in [paragraphs \(h\)\(1\)\(i\)](#) through [\(iii\)](#) of this section.

(i) The reason for the delay.

(ii) An estimate of the emissions from shutdown for repair and an estimate of the emissions likely to result from delay of repair, and whether the requirements at § 63.1103(e)(7)(i)(A) or (B) were met.

(iii) The date the repair was completed or, if the repair has not been completed, a schedule for completing the repair.

(2) If the owner or operator chooses to monitor the CO₂ concentration during decoking as specified in § 63.1103(e)(7)(ii), then for each decoking cycle, records must be kept for all measured CO₂ concentration values beginning before the expected end of the air-in decoke time, the criterion used to begin the CO₂ monitoring, and the target used to indicate combustion is complete. The target record should identify any time period the site routinely extends air addition beyond the specified CO₂ concentration and any decoke completion assurance procedures used to confirm all coke has been removed prior to stopping air addition that occurs after the CO₂ target is reached.

(3) If the owner or operator chooses to monitor the temperature at the radiant tube(s) outlet during decoking as specified in § 63.1103(e)(7)(iii), then for each decoking cycle, records must be kept for all measured temperature values and the target used to indicate a reduction in temperature of the inside of the radiant tube(s) is necessary.

(4) If the owner or operator chooses to comply with § 63.1103(e)(7)(iv), then records must be kept that document that decoke air is no longer being added after each decoking cycle.

(5) If the owner or operator chooses to treat steam or feed to reduce coke formation as specified in § 63.1103(e)(7)(v), then records must be kept that document that the planned treatment occurred.

(6) For each decoking operation of an ethylene cracking furnace subject to the requirements in § 63.1103(e)(8), the owner or operator must keep records that document the day each inspection took place and the results of each inspection where an isolation problem was identified including any repairs made to correct the problem.

(i) ***Ethylene production pressure relief devices records.*** For each pressure relief device subject to the pressure release management work practice standards in § 63.1107(h)(3), the owner or operator must keep the records specified in [paragraphs \(i\)\(1\)](#) through [\(3\)](#) of this section.

(1) Records of the prevention measures implemented as required in § 63.1107(h)(3)(ii).

(2) Records of the number of releases during each calendar year and, prior to June 3, 2024, the number of those releases for which the root cause was determined to be a force majeure event. Keep these records for the current calendar year and the past five calendar years.

(3) For each release to the atmosphere, the owner or operator must keep the records specified in [paragraphs \(i\)\(3\)\(i\)](#) through [\(iv\)](#) of this section.

- (i) The start and end time and date of each pressure release to the atmosphere.
- (ii) Records of any data, assumptions, and calculations used to estimate of the mass quantity of each organic HAP released during the event.
- (iii) Records of the root cause analysis and corrective action analysis conducted as required in § 63.1107(h)(3)(iii), including an identification of the affected pressure relief device, a statement noting whether the event resulted from the same root cause(s) identified in a previous analysis and either a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary under § 63.1107(h)(7)(i).
- (iv) For any corrective action analysis for which implementation of corrective actions are required in § 63.1107(h)(7), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

§ 63.1110 Reporting requirements.

(a) **Required reports.** Each owner or operator of an affected source subject to this subpart shall submit the reports listed in [paragraphs \(a\)\(1\) through \(8\)](#) of this section, as applicable. Each owner or operator of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source subject to this subpart shall also submit the reports listed in [paragraph \(a\)\(9\)](#) of this section in addition to the reports listed in [paragraphs \(a\)\(1\) through \(8\)](#) of this section, as applicable. Beginning no later than the compliance dates specified in [§ 63.1102\(c\)](#) for ethylene production affected sources, specified in [§ 63.1102\(d\)](#) for cyanide chemicals manufacturing affected sources, and specified in [§ 63.1102\(e\)](#) for carbon black production affected sources, each owner or operator of an ethylene production affected source, cyanide chemicals manufacturing affected source, and carbon black production affected source subject to this subpart shall also submit the reports listed in [paragraph \(a\)\(10\)](#) of this section in addition to the reports listed in [paragraphs \(a\)\(1\) through \(8\)](#) of this section, as applicable.

- (1) A Notification of Initial Startup described in [paragraph \(b\)](#) of this section, as applicable.
- (2) An Initial Notification described in [paragraph \(c\)](#) of this section.
- (3) [Reserved]
- (4) A Notification of Compliance Status report described in [paragraph \(d\)](#) of this section.
- (5) Periodic Reports described in [paragraph \(e\)](#) of this section.
- (6) Application for approval of construction or reconstruction described in [§ 63.5\(d\)](#) of [subpart A of this part](#).

(7) Startup, Shutdown, and Malfunction Reports described in [§ 63.1111](#) (except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources).

(8) **Other reports.** Other reports shall be submitted as specified elsewhere in this subpart and subparts referenced by this subpart.

(9) Within 60 days after the date of completing each performance test (as defined in [§ 63.2](#)), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by this subpart according to the methods specified in [paragraph \(a\)\(9\)\(i\)](#) or [\(ii\)](#) of this section.

(i) For data collected using test methods supported by the EPA-provided software, the owner or operator shall submit the results of the performance test to the EPA by direct computer-to-computer electronic transfer via EPA-provided software, unless otherwise approved by the Administrator. Owners or operators, who claim that some of the information being submitted for performance tests is confidential business information (CBI), must submit a complete file using EPA-provided software that includes information claimed to be CBI on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA by direct computer-to-computer electronic transfer via EPA-provided software.

(ii) For any performance test conducted using test methods that are not compatible with the EPA-provided software, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in [§ 60.4](#).

(10)

(i) Beginning no later than the compliance dates specified in [§ 63.1102\(c\)](#) for ethylene production affected sources, specified in [§ 63.1102\(d\)](#) for cyanide chemicals manufacturing affected sources, and specified in [§ 63.1102\(e\)](#) for carbon black production affected sources, within 60 days after the date of completing each performance test required by this subpart or applicability assessment required by [§ 63.1103\(f\)\(3\)\(iv\)](#), the owner or operator must submit the results of the performance test or applicability assessment following the procedures specified in [§ 63.9\(k\)](#). Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website

at the time of the test must be included as an attachment in the ERT or alternate electronic file.

(ii) Beginning no later than the compliance dates specified in [§ 63.1102\(c\)](#) through [\(e\)](#), the owner or operator must submit all subsequent Notification of Compliance Status reports required under [paragraph \(a\)\(4\)](#) of this section in portable document format (PDF) format to the EPA following the procedure specified in [§ 63.9\(k\)](#). All subsequent Periodic Reports required under [paragraph \(a\)\(5\)](#) of this section must be submitted to the EPA via CEDRI using the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for this subpart and following the procedure specified in [§ 63.9\(k\)](#) beginning no later than the compliance dates specified in [§ 63.1102\(c\)](#) through [\(e\)](#) or once the report template has been available on the CEDRI website for 1 year, whichever date is later. The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports under [§§ 63.9\(i\)](#) and [63.10\(a\)](#) of subpart A, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Any medium submitted through mail under [§ 63.9\(k\)](#) for a Notification of Compliance Status report or Periodic Report must be sent to the attention of the Ethylene Production Sector Lead, Cyanide Chemicals Manufacturing Sector Lead, or Carbon Black Production Sector Lead, as appropriate.

(iii) Beginning no later than the compliance date specified in [§ 63.1102\(c\)](#) or once the report template for this subpart has been available on the CEDRI website for six months, whichever date is later, the items in [§ 63.1110\(e\)\(4\)\(iv\)](#) and [§ 63.1110\(e\)\(8\)\(iii\)](#) must be submitted to the EPA via CEDRI as specified in [§ 63.9\(k\)](#) using the appropriate electronic report template on the CEDRI website for reporting that information. The report submitted to CEDRI must also contain company identifier information (including the company name and address) and the beginning and ending dates of the time period covered by the report. Once you begin submitting Periodic Reports to CEDRI in accordance with [paragraph \(a\)\(10\)\(ii\)](#) of this section, the items in [§ 63.1110\(e\)\(4\)\(iv\)](#) and [§ 63.1110\(e\)\(8\)\(iii\)](#) must be included in those Periodic Reports instead of submitting the information using the separate template.

(b) Notification of initial startup —

(1) **Contents.** An owner or operator of an affected source for which a notice of initial startup has not been submitted under [§ 63.5](#), shall send the Administrator written notification of the actual date of initial startup of an affected source. This paragraph does not apply to an affected source in existence on the effective date of this rule.

(2) **Due date.** The notification of the actual date of initial startup shall be postmarked within 15 days after such date.

(c) Initial Notification. Owners or operators of affected sources who are subject to this subpart shall notify the Administrator of the applicability of this subpart by submitting an Initial

Notification according to the schedule described in [paragraph \(c\)\(1\)](#) of this section. The notice shall include the information specified in [paragraphs \(c\)\(2\)](#) through [\(7\)](#) of this section, as applicable. An application for approval of construction or reconstruction required under [§ 63.5\(d\)](#) of [subpart A of this part](#) may be used to fulfill the initial notification requirements.

- (1) The initial notification shall be postmarked within 1 year after the source becomes subject to this subpart.
- (2) Identification of the storage vessels subject to this subpart.
- (3) Identification of the process vents subject to this subpart.
- (4) Identification of the transfer racks subject to this subpart.
- (5) For equipment leaks, identification of the process units subject to this subpart.
- (6) Identification of other equipment or emission points subject to this subpart.
- (7) As an alternative to the requirements specified in [paragraphs \(c\)\(1\)](#) through [\(3\)](#) and [\(c\)\(5\)](#) of this section, process units can be identified instead of individual pieces of equipment. For this alternative, the kind of emission point in the process unit that will comply must also be identified.

(d) Notification of Compliance Status —

(1) **Contents.** The owner or operator shall submit a Notification of Compliance Status for each affected source subject to this subpart containing the information specified in [paragraphs \(d\)\(1\)\(i\)](#) and [\(ii\)](#) of this section. For pressure relief devices subject to the requirements of [§ 63.1107\(e\)\(3\)](#), the owner or operator of an acrylic and modacrylic fiber production affected source or polycarbonate production affected source shall also submit the information listed in [paragraph \(d\)\(1\)\(iii\)](#) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring. For flares subject to the requirements of [§ 63.1103\(e\)\(4\)](#), the owner or operator of an ethylene production affected source shall also submit the information listed in [paragraph \(d\)\(1\)\(iv\)](#) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for flare monitoring. For pressure relief devices subject to the pressure release management work practice standards in [§ 63.1107\(h\)\(3\)](#), the owner or operator of an ethylene production affected source shall also submit the information listed in [paragraph \(d\)\(1\)\(v\)](#) of this section in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for pressure relief device monitoring.

- (i) Except as specified in [paragraphs \(d\)\(1\)\(iv\)](#) and [\(v\)](#) of this section, the Notification of Compliance Status shall include the information specified in this subpart and the subparts referenced by this subpart. Alternatively, this information can be submitted as part of a title V permit application or amendment.

(ii) The Notification of Compliance Status shall include a statement from the owner or operator identifying which subpart he or she has elected to comply with, where given a choice, as provided for in [§ 63.1100\(g\)](#).

(iii) For pressure relief devices in organic HAP service, a description of the device or monitoring system to be implemented, including the pressure relief devices and process parameters to be monitored (if applicable), and a description of the alarms or other methods by which operators will be notified of a pressure release.

(iv) For each flare subject to the requirements in [§ 63.1103\(e\)\(4\)](#), in lieu of the information required in [§ 63.987\(b\)](#) of subpart SS, the Notification of Compliance Status shall include flare design (*e.g.*, steam-assisted, air-assisted, non-assisted, or pressure-assisted multi-point); all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the initial visible emissions demonstration required by [§ 63.670\(h\)](#) of subpart CC, as applicable; and all periods during the compliance determination when the pilot flame or flare flame is absent.

(v) For pressure relief devices subject to the requirements of [§ 63.1107\(h\)](#), the Notification of Compliance Status shall include the information specified in [paragraphs \(d\)\(1\)\(v\)\(A\) and \(B\)](#) of this section.

(A) A description of the monitoring system to be implemented, including the relief devices and process parameters to be monitored, and a description of the alarms or other methods by which operators will be notified of a pressure release.

(B) A description of the prevention measures to be implemented for each affected pressure relief device.

(2) **Due date.** The owner or operator shall submit the Notification of Compliance Status for each affected source 240 days after the compliance date specified for the affected source under this subpart, or 60 days after completion of the initial performance test or initial compliance assessment/subsequent required performance test or subsequent compliance assessment, whichever is earlier. Notification of Compliance Status reports may be combined for multiple affected sources as long as the due date requirements for all sources covered in the combined report are met.

(e) **Periodic reports.** The owner or operator of an affected source subject to monitoring requirements of this subpart, or to other requirements of this subpart or subparts referenced by this subpart, where periodic reporting is specified, shall submit a Periodic Report.

(1) **Contents.** Except as specified in [paragraphs \(e\)\(4\) through \(8\)](#) of this section, Periodic Reports shall include all information specified in this subpart and subparts referenced by this subpart.

(2) **Due date.** The Periodic Report shall be submitted no later than 60 days after the end of each 6-month period. The first report shall cover the 6-month period after the Notification of

Compliance Status report is due. The first report shall be submitted no later than the last day of the month that includes the date 8 months (6 months and 60 days) after the Notification of Compliance Status report is due.

(3) **Overlap with title V reports.** Information required by this subpart, which is submitted with a title V periodic report, need not also be included in a subsequent Periodic Report required by this subpart or subpart referenced by this subpart. The title V report shall be referenced in the Periodic Report required by this subpart.

(4) **Ethylene production flare reports.** For each flare subject to the requirements in [§ 63.1103\(e\)\(4\)](#), the Periodic Report shall include the items specified in [paragraphs \(e\)\(4\)\(i\) through \(vi\)](#) of this section in lieu of the information required in [§ 63.999\(c\)\(3\)](#) of subpart SS.

(i) Records as specified in [§ 63.1109\(e\)\(1\)](#) for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame or flare flame is present. Include the start and stop time and date of each 15-minute block.

(ii) Visible emission records as specified in [§ 63.1109\(e\)\(2\)\(iv\)](#) for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

(iii) The periods specified in [§ 63.1109\(e\)\(6\)](#). Indicate the date and start time for the period, and the net heating value operating parameter(s) determined following the methods in [§ 63.670\(k\)](#) through [\(n\)](#) of subpart CC as applicable.

(iv) For flaring events meeting the criteria in [§ 63.670\(o\)\(3\)](#) of subpart CC and [§ 63.1103\(e\)\(4\)\(iv\)](#):

(A) Flare identification name or number and the start and stop time and date of the flaring event.

(B) The length of time (in minutes) that emissions were visible from the flare during the event.

(C) Results of the root cause and corrective actions analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

(v) For pressure-assisted multi-point flares, the periods of time when the pressure monitor(s) on the main flare header show the burners operating outside the range of the manufacturer's specifications.

(vi) For pressure-assisted multi-point flares, the periods of time when the staging valve position indicator monitoring system indicates a stage should not be in operation and is or when a stage should be in operation and is not.

(5) **Ethylene production maintenance vent reports.** For maintenance vents subject to the requirements [§ 63.1103\(e\)\(5\)](#), Periodic Reports must include the information specified in [paragraphs \(e\)\(5\)\(i\)](#) through [\(iv\)](#) of this section for any release exceeding the applicable limits in [§ 63.1103\(e\)\(5\)\(i\)](#). For the purposes of this reporting requirement, owners or operators complying with [§ 63.1103\(e\)\(5\)\(i\)\(D\)](#) must report each venting event conducted under those provisions and include an explanation for each event as to why utilization of this alternative was required.

(i) Identification of the maintenance vent and the equipment served by the maintenance vent.

(ii) The date and time the maintenance vent was opened to the atmosphere.

(iii) The LEL, vessel pressure, or mass of VOC in the equipment, as applicable, at the start of atmospheric venting. If the 5 psig vessel pressure option in [§ 63.1103\(e\)\(5\)\(i\)\(B\)](#) was used and active purging was initiated while the concentration of the vapor was 10 percent or greater of its LEL, also include the concentration of the vapors at the time active purging was initiated.

(iv) An estimate of the mass of organic HAP released during the entire atmospheric venting event.

(6) **Bypass line reports.** For bypass lines subject to the requirements in [§ 63.1103\(e\)\(6\)](#), Periodic Reports must include the date, time, duration, estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting mass emissions of organic HAP that bypass a control device. For periods when the flow indicator is not operating, report the date, time, and duration.

(7) **Decoking operation reports.** For decoking operations of an ethylene cracking furnace subject to the requirements in [§ 63.1103\(e\)\(7\)](#) and [\(8\)](#), Periodic Reports must include the information specified in [paragraphs \(e\)\(7\)\(i\)](#) through [\(iii\)](#) of this section.

(i) For each control measure selected to minimize coke combustion emissions as specified in [§ 63.1103\(e\)\(7\)\(ii\)](#) through [\(v\)](#), report instances where the control measures were not followed.

(ii) Report instances where an isolation valve inspection was not conducted according to the procedures specified in [§ 63.1103\(e\)\(8\)](#).

(iii) For instances where repair was delayed beyond 1 calendar day as specified in [§ 63.1103\(e\)\(7\)\(i\)](#), report the information specified in [§ 63.1109\(h\)\(1\)](#).

(8) **Ethylene production pressure relief devices reports.** For pressure relief devices subject to the requirements of [§ 63.1107\(h\)](#), Periodic Reports must include the information specified in [paragraphs \(e\)\(8\)\(i\)](#) through [\(iii\)](#) of this section.

(i) For pressure relief devices in organic HAP gas or vapor service, pursuant to [§ 63.1107\(h\)\(1\)](#), report any instrument reading of 500 ppm or greater.

(ii) For pressure relief devices in organic HAP gas or vapor service subject to [§ 63.1107\(h\)\(2\)](#), report confirmation that any monitoring required to be done during the reporting period to show compliance was conducted.

(iii) For pressure relief devices in organic HAP service subject to [§ 63.1107\(h\)\(3\)](#), report each pressure release to the atmosphere, including pressure relief device identification name or number; start date and start time and duration (in hours) of the pressure release; an estimate (in pounds) of the mass quantity of each organic HAP released; the results of any root cause analysis and corrective action analysis completed during the reporting period, including the corrective actions implemented during the reporting period; and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

§ 63.1111 Startup, shutdown, and malfunction.

(a) **Startup, shutdown, and malfunction plan.** Before May 18, 2022, the requirements of this [paragraph \(a\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this [paragraph \(a\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this [paragraph \(a\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) **Description and purpose of plan.** The owner or operator of an affected source shall develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. This plan shall also include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under this subpart. The plan shall also address routine or otherwise predictable CPMS malfunctions. This plan shall be developed by the owner or operator by the affected source's compliance date under this subpart. The requirement to develop this plan shall be incorporated into the source's title V permit. This requirement is optional for equipment that must comply with subparts TT or UU under this subpart. It is not optional for equipment equipped with a closed vent system and control device subject to this subpart and [subpart SS of this part](#). The purpose of the startup, shutdown, and malfunction plan is described in [paragraphs \(a\)\(1\)\(i\)](#) and [\(ii\)](#) of this section.

(i) To ensure that owners or operators are prepared to correct malfunctions as soon as practical after their occurrence, in order to minimize excess emissions of regulated organic HAP; and

(ii) To reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(2) Operation of source. During periods of startup, shutdown, and malfunction, the owner or operator of an affected source subject to this subpart YY shall operate and maintain such affected source (including associated air pollution control equipment and CPMS) in a manner consistent with safety and good air pollution control practices for minimizing emissions to the extent practical. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required by this section), review of operation and maintenance records, and inspection of the source.

(3) ***Use of additional procedures.*** To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator of an affected source may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(4) ***Revisions to the plan.*** Based on the results of a determination made under [§ 63.1108\(b\)\(3\)](#), the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan if the Administrator finds that the plan is inadequate as specified in [paragraphs \(a\)\(4\)\(i\) through \(iv\)](#) of this section:

(i) Does not address a startup, shutdown, and malfunction event of the CPMS, the air pollution control equipment, or the affected source that has occurred; or

(ii) Fails to provide for the operation of the affected source (including associated air pollution control equipment and CPMS) during a startup, shutdown, and malfunction event in a manner consistent with good air pollution control practices for minimizing emissions to the extent practical; or

(iii) Does not provide adequate procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable; or

(iv) Does not provide adequate measures to prevent or minimize excess emissions to the extent practical as specified in [§ 63.1108\(a\)\(5\)](#).

(5) **Additional malfunction plan requirements.** If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS.

(b) **Startup, shutdown, and malfunction reporting requirements.** Before May 18, 2022, the requirements of this [paragraph \(b\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this [paragraph \(b\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this [paragraph \(b\)](#) apply to all affected sources except for acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) **Periodic startup, shutdown, and malfunction reporting requirements.** If actions taken by an owner or operator during a startup, shutdown, and malfunction of an affected source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's plan, then the owner or operator shall state such information in a startup, shutdown, and malfunction report. During the reporting period, reports shall only be required for startups, shutdowns, and malfunctions during which excess emissions, as defined in [§ 63.1108\(a\)\(5\)](#), occur during the reporting period. A startup, shutdown, and malfunction report can be submitted as part of a Periodic Report required under [§ 63.1110\(a\)\(5\)](#), or on a more frequent basis if specified otherwise under this subpart or a subpart referenced by this subpart or as established otherwise by the permitting authority in the affected source's title V permit. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. The report shall include the information specified in [paragraphs \(b\)\(1\)\(i\)](#) through [\(b\)\(1\)\(iv\)](#) of this section.

(i) The name, title, and signature of the owner or operator or other responsible official certifying its accuracy.

(ii) The number of startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period if the total duration amounts to either of the durations in [paragraphs \(b\)\(1\)\(ii\)\(A\)](#) or [\(B\)](#) of this section. Records of the number of CPMS startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period are required under [§ 63.998\(c\)\(1\)\(ii\)\(C\)](#) and [\(D\)](#) of this section.

(A) Total duration of periods of malfunctioning of a CPMS equal to or greater than 5 percent of that CPMS operating time for the reporting period; or

(B) Total duration of periods of startup, shutdown, and malfunction for an affected source equal to or greater than 1 percent of that affected source's operating time for the reporting period.

(iii) Records documenting each startup, shutdown and malfunction event as required under [§ 63.998\(c\)\(1\)\(ii\)\(F\)](#).

(iv) Records documenting the total duration of operating time as required under [§ 63.998\(c\)\(1\)\(ii\)\(H\)](#).

(2) **Immediate startup, shutdown, and malfunction reports.** Notwithstanding the allowance to reduce the frequency of reporting for startup, shutdown, and malfunction reports under [paragraph \(b\)\(1\)](#) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) during which excess emissions occur is not consistent with the procedures specified in the affected source's plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, followed by a letter delivered or postmarked within 7 working days after the end of the event. The immediate report required under this paragraph shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in [§ 63.1110\(h\)](#).

(c) **Malfunction recordkeeping and reporting.** Before May 18, 2022, the requirements of this [paragraph \(c\)](#) apply only to acrylic and modacrylic fiber production affected sources and polycarbonate production affected sources. On and after May 18, 2022, the requirements of this [paragraph \(c\)](#) apply only to acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, and polycarbonate production affected sources. On and after July 6, 2023, the requirements of this [paragraph \(c\)](#) apply only to acrylic and modacrylic fiber production affected sources, carbon black production affected sources, cyanide chemicals manufacturing affected sources, ethylene production affected sources, and polycarbonate production affected sources.

(1) **Records of malfunctions.** The owner or operator shall keep the records specified in [paragraphs \(c\)\(1\)\(i\)](#) through [\(iii\)](#) of this section.

(i) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, and duration of each failure.

(ii) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(iii) Record actions taken to minimize emissions in accordance with [§ 63.1108\(a\)\(4\)\(ii\)](#), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(2) **Reports of malfunctions.** If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.