vent stream, record the following information:

(i) The percent reduction or scrubber outlet mass emission rate of total hydrogen halides and halogens as specified in §65.158(c);

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

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

(c) Recovery device monitoring records during the TRE index value determination. For Group 2A process vents, the following records, as applicable, shall be maintained and reported as specified in 65.164(a)(3):

(1) Where an absorber is the final recovery device in the recovery system, the exit specific gravity and average exit temperature of the absorbing liquid measured at least every 15 minutes and averaged over the same time period as the TRE index value determination (both measured while the vent stream is normally routed and constituted); or

(2) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period as the TRE index value determination while the vent stream is routed and constituted normally; or

(3) Where a carbon adsorber is the final recovery device in the recovery system, the total regeneration stream mass flow measured at least every 15 minutes and averaged over the same time 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

(4) As an alternative to paragraph (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 measured at least every 15 minutes and averaged over the same time period as the TRE index value determination while the vent

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stream is normally routed and constituted; and

(5) All measurements and calculations performed to determine the TRE index value of the vent stream as specified in §65.64(h).

(d) Halogen concentration records. Record the halogen concentration in the vent stream determined according to the procedures as specified in §65.63(b) or §65.83(b). Submit this record in the Initial Compliance Status Report, as specified in §65.165(d). If the owner or operator designates the vent stream as halogenated, then this shall be recorded and reported in the Initial Compliance Status Report.

§65.161 Continuous records and monitoring system data handling.

(a) Continuous records. Where this subpart requires a monitoring device capable of providing a continuous record, the owner or operator shall maintain the record specified in paragraph (a)(1), (2), (3), or (4) of this section, as applicable (The provisions of this section apply to owners and operators of storage vessels and lowthroughput transfer racks only if specified by the applicable monitoring plan established under §65.165(c)(1) and (2)):

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

(2) 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; or

(3) For data collected from an automated continuous parameter monitoring system, a record of block hourly average values calculated from each 15minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and a record of the most recent 3 valid hours of continuous (15minute or shorter) records meeting the requirements of paragraph (a)(1) or (2) of this section. Records meeting the requirements of paragraph (a)(1) or (2) of this section shall also be kept for all periods that include CPMS breakdown

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or malfunction. During these periods, it is not necessary to calculate hourly averages; or

(4) A record as required by an alternative approved under 65.162(d).

(b) *Excluded data*. Monitoring data recorded during the following periods shall not be included in any average computed to determine compliance under this subpart:

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

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

(3) Startups, shutdowns, and malfunctions.

(c) Records of daily averages. In addition to the records specified in paragraph (a) of this section, owners or operators shall also keep records as specified in paragraphs (c)(1) and (2) of this section unless an alternative monitoring or recordkeeping system has been requested and approved under $\S65.162(d)$.

(1) Except as specified in paragraph (c)(2) of this section, daily average values of each continuously monitored parameter shall be calculated for each operating day. Data meeting the specifications of paragraph (b) of this section shall not be included in the average. The data shall be reported in the periodic report as specified in §65.166(f), if applicable.

(i) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day as specified in paragraph (a)(1), (2), or (3) of this section. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous (for example, for high-throughput 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.

(ii) The operating day shall be the period defined in the operating permit or the Initial Compliance Status Report. It may be from midnight to midnight or another daily period.

(2) If all monitored parameter values recorded under paragraph (a)(1), (2), or (3) of this section, during an operating day are within the range established in the Initial Compliance Status Report or in the operating permit, the owner or operator does not have to calculate a daily average value for the operating day and may record that all values were within the range. The owner or operator must continue to retain the raw data, 15-minute averages, or the hourly averages required under paragraph (a)(1), (2), or (3) of this section.

(d) Valid data. Unless determined to be excluded data according to paragraph (b) of this section, the data collected pursuant to paragraphs (a) through (c) of this section shall be considered valid.

(e) Alternative recordkeeping. For any parameter with respect to any item of equipment, the owner or operator may implement the recordkeeping requirements in paragraph (e)(1) or (2) of this section as alternatives to the continuous parameter monitoring and record-keeping provisions listed in paragraphs (a) through (c) of this section. The owner or operator shall retain each record required by paragraph (e)(1) or (2) of this section as provided in §65.4.

(1) 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 (e)(1)(i) through (vi) of this section are met. The owner or operator shall notify the Administrator of implementation of paragraph (e)(1) of this section in the Initial Compliance Status Report as required in §65.165(e) or, if the Initial Compliance Status Report has already been submitted, in the periodic report as required in §65.166(f)(4) immediately preceding implementation of the requirements of paragraph (e)(1) of this section.

(i) The monitoring system can detect unrealistic or impossible data during periods of operation other than startups, shutdowns, or malfunctions (for example, a temperature reading of -200 °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.

(ii) The monitoring system shall generate 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. All instances in an operating day constitute a single occurrence. The owner or operator shall record the occurrence of any period meeting the following criteria:

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

(B) The running average is based on at least six 1-hour average values;

(C) The running average reflects a period of operation other than a startup, shutdown, or malfunction.

(iii) The monitoring system shall be capable of detecting unchanging data during periods of operation other than startups, shutdowns, or malfunctions except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (for example, 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.

(iv) The monitoring system shall alert the owner or operator by an alarm if the running average parameter value calculated under paragraph (e)(1)(i) of this section reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.

(v) The owner or operator shall verify and document the proper functioning of the monitoring system, including its ability to comply with the requirements of paragraph (e)(1) of this section, at the following times:

(A) Upon initial installation;

(B) Annually after initial installation; and

(C) After any change to the programming or equipment constituting the 40 CFR Ch. I (7–1–11 Edition)

monitoring system, that might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.

(vi) The owner or operator shall retain the following records:

(A) Identification of each parameter for each item of equipment for which the owner or operator has elected to comply with the requirements of §65.162(e).

(B) A description of the applicable monitoring system(s) and of how compliance will be achieved with each requirement of paragraphs (e)(1)(i) through (v) of this section. The description shall identify the location and format (for example, 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 outdated description.

(C) 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 (e)(1) of this section.

(D) Owners and operators 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 provide access within 2 hours after a request. The owner or operator shall retain the most recent outdated description at least until 5 years from the date of its creation. The outdated 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 outdated. Thereafter, the outdated description may be stored off-site.

(2) If an owner or operator has elected to implement the requirements of paragraph (e)(1) of this section and a period of 6 consecutive months has passed without an excursion as defined in paragraph (e)(2)(iv) 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

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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.

(i) 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. The notification shall identify the parameter and unit of equipment.

(ii) If there is an excursion as defined in paragraph (e)(2)(iv) of this section on any operating day after the owner or operator has ceased recording daily averages as provided in paragraph (e)(2)of this section, the owner or operator shall immediately resume retaining the daily average value for each day and shall notify the Administrator in the next periodic report. The owner or operator shall continue to retain each daily average value until another period of 6 consecutive months has passed without an excursion.

(iii) The owner or operator shall retain the records specified in paragraphs (e)(1)(i) through (vi) of this section for the duration specified in §65.4. For any calendar week, if compliance with paragraphs (e)(1)(i) through (iv) 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 startup, shutdown, or malfunction.

(iv) For purposes of paragraph (e) 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 the following:

(A) The daily average value during any startup, shutdown, or malfunction shall not be considered an excursion for purposes of this paragraph (e) if the owner or operator operates the source in accordance with $\S65.3(a)$.

(B) Excused excursions described in §65.156(d)(2) and excursions described in §65.156(d)(3) do not count toward the

number of excursions for purposes of this paragraph (e).

[65 FR 78285, Dec. 14, 2000, as amended at 71 FR 20472, Apr. 20, 2006]

§65.162 Nonflare control and recovery device monitoring records.

(a) 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 paragraph (a) of this section as well as records specified elsewhere in this part.

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

(2) For CPMS used to comply with this subpart, records of the following information, as applicable:

(i) The date and time of completion of calibration and preventive maintenance of the CPMS;

(ii) The "as found" and "as left" CPMS readings whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise;

(iii) The start time and duration or start and stop time of any periods when the CPMS is inoperative or malfunctioning;

(iv) Records of the occurrence and duration of each startup, shutdown, and malfunction of CPMS used to comply with this part during which excess emissions (as defined in $\S65.3(a)(4)$) occur; and

(v) For each startup, shutdown, and malfunction during which excess emissions as defined in $\S65.3(a)(4)$ of this part occur, records whether the procedures specified in the source's startup, 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 record-keeping that confirms conformance with the startup, shutdown, and malfunction plan for the event.

(3) Records of startup, shutdown, and malfunction and CPMS calibration and maintenance are not required if they pertain solely to Group 2A process vents.

(b) Combustion control and halogen reduction device monitoring records. (1)