performance trial program items required under paragraph (d)(6)(iii) of this section.

(iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(4) All records documenting the quality assurance program for pumps as specified in paragraph (d)(7) of this section, including records indicating that all pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance.

(5) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in paragraph (d)(8) of this section.

(6) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.

§65.117 Alternative means of emission limitation: Batch processes.

(a) General requirement. As an alternative to complying with the requirements of §§65.106 through 65.114 and §65.116, an owner or operator of a batch process that operates in regulated material service during the calendar year may comply with one of the standards specified in paragraphs (b) and (c) of this section, or the owner or operator may petition for approval of an alternative standard under the provisions of §65.102(b). The alternative standards of this section provide the options of pressure testing or monitoring the equipment for leaks. The owner or operator may switch among the alternatives provided the change is documented as specified in paragraph (b)(7) of this section.

(b) Pressure testing of the batch equipment. The following requirements shall be met if an owner or operator elects to use pressure testing of batch product-process equipment to demonstrate compliance with this subpart:

(1) Reconfiguration. Each time equipment is reconfigured for production of a different product or intermediate, the batch product-process equipment train shall be pressure-tested for leaks before regulated material is first fed to the equipment and the equipment is placed in regulated material service.

(i) When the batch product-process equipment train is reconfigured to produce a different product, pressure testing is required only for the new or disturbed equipment.

(ii) Each batch product-process that operates in regulated material service during a calendar year shall be pressure-tested at least once during that calendar year.

(iii) Pressure testing is not required for routine seal breaks, such as changing hoses or filters, that are not part of the reconfiguration to produce a different product or intermediate.

(2) Testing procedures. The batch product-process equipment shall be tested either using the procedures specified in paragraph (b)(5) of this section for pressure vacuum loss or with a liquid using the procedures specified in paragraph (b)(6) of this section.

(3) Leak detection. (i) For pressure or vacuum tests using a gas, a leak is detected if the rate of change in pressure is greater than 6.9 kilopascals (1 pound per square inch gauge) in 1 hour or if there is visible, audible, or olfactory evidence of fluid loss.

(ii) For pressure tests using a liquid, a leak is detected if there are indications of liquids dripping or if there is other evidence of fluid loss.

(4) Leak repair. (i) If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before startup of the process.

(ii) If a batch product-process fails the retest (the second of two consecutive pressure tests), it shall be repaired as soon as practical but not later than 30 calendar days after the second pressure test, except as specified in paragraph (e) of this section.

(5) Gas pressure test procedure for pressure or vacuum loss. The following procedures shall be used to pressure test batch product-process equipment for pressure or vacuum loss to demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section:

(i) The batch product-process equipment train shall be pressurized with a gas to a pressure less than the set pressure of any safety relief devices or
valves or to a pressure slightly above
the operating pressure of the equip-
ment, or alternatively the equipment
shall be placed under a vacuum.

(ii) Once the test pressure is ob-
tained, the gas source or vacuum
source shall be shut off.

(iii) The test shall continue for not
less than 15 minutes unless it can be
determined in a shorter period of time
that the allowable rate of pressure drop
or of pressure rise was exceeded. The
pressure in the batch product-process
equipment shall be measured after the
gas or vacuum source is shut off and at
the end of the test period. The rate of
change in pressure in the batch prod-
uct-process equipment shall be cal-
lculated using Equation 117–1 of this
section:

\[
\Delta \left( \frac{P}{t} \right) = \left( \frac{P_f - P_i}{t_f - t_i} \right) \quad \text{(Eq. 117-1)}
\]

Where:
\( \Delta \left( \frac{P}{t} \right) \) = Change in pressure, pounds per
square inch gauge/hr.
\( P_f \) = Final pressure, pounds per square inch
gauge.
\( P_i \) = Initial pressure, pounds per square inch
gauge.
\( t_f - t_i \) = Elapsed time, hours.

(iv) The pressure shall be measured
using a pressure measurement device
(gauge, manometer, or equivalent) that
has a precision of ±2.5 millimeters mer-
cury (0.10 inch of mercury) in the range
of test pressure and is capable of meas-
uring pressures up to the relief set
pressure of the pressure relief device. If
such a pressure measurement device is
not reasonably available, the owner or
operator shall use a pressure measure-
ment device with a precision of at least
±10 percent of the test pressure of the
equipment and shall extend the dura-
tion of the test for the time necessary
to detect a pressure loss or rise that
equals a rate of 1 pound per square inch
gauge per hour (7 kilopascals per hour).

(v) An alternative procedure may be
used for leak testing the equipment if
the owner or operator demonstrates
the alternative procedure is capable of
detecting losses of fluid.

(6) Pressure test procedure using test
liquid. The following procedures shall
be used to pressure test batch product-
process equipment using a liquid to
demonstrate compliance with the re-
quirements of paragraph (b)(3)(ii) of
this section:

(i) The batch product-process equip-
ment train or section of the equipment
train shall be filled with the test liquid
(for example, water, alcohol) until nor-
mal operating pressure is obtained.

Once the equipment is filled, the liquid
source shall be shut off.

(ii) The test shall be conducted for a
period of at least 60 minutes unless it
can be determined in a shorter period
of time that the test is a failure.

(iii) Each seal in the equipment being
tested shall be inspected for indica-
tions of liquid dripping or other indica-
tions of fluid loss. If there are any indi-
cations of liquids dripping or of fluid
loss, a leak is detected.

(iv) An alternative procedure may be
used for leak testing the equipment if
the owner or operator demonstrates
the alternative procedure is capable of
detecting losses of fluid.

(7) Pressure testing recordkeeping. The
owner or operator of a batch product-
process who elects to pressure test the
batch product-process equipment train
to demonstrate compliance with this
subpart shall maintain records of the
information specified in paragraphs
(b)(7)(i) through (v) of this section.

(i) The identification of each product
or product code produced during the
calendar year. It is not necessary to
identify individual items of equipment
in a batch product-process equipment
train.

(ii) Physical tagging of the equip-
ment to identify that it is in regulated
material service and subject to the pro-
visions of this subpart is not required.
Equipment in a batch product-process
subject to the provisions of this sub-
part may be identified on a plant site
plan, in log entries, or by other appro-
priate methods.
(iii) The dates of each pressure test required in paragraph (b) of this section, the test pressure, and the pressure drop observed during the test.

(iv) Records of any visible, audible, or olfactory evidence of fluid loss.

(v) When a batch product-process equipment train does not pass two consecutive pressure tests, as specified in paragraph (b)(4)(ii) of this section, the following information shall be recorded in a log and kept for 2 years:

(A) The date of each pressure test and the date of each leak repair attempt;
(B) Repair methods applied in each attempt to repair the leak;
(C) The reason for the delay of repair;
(D) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment; and
(E) The date of successful repair.

(c) Equipment monitoring. The following requirements shall be met if an owner or operator elects to monitor the equipment in a batch process to detect leaks by the method specified in §65.104(b) and (c) to demonstrate compliance with this subpart:

(1) The owner or operator shall comply with the requirements of §§65.106 through 65.116 as modified by paragraphs (c)(2) through (4) of this section.

(2) The monitoring frequencies specified in paragraph (c)(3)(iii) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor anytime during the specified monitoring period (for example, month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. For example, if the equipment is not operating during the scheduled monitoring period, the monitoring can be done during the next period when the process is operating.

(3) If a leak is detected, it shall be repaired as soon as practical but not later than 15 calendar days after it is detected except as provided in paragraph (e) of this section.

(d) Added equipment recordkeeping. (1) For batch product-process units that the owner or operator elects to monitor as provided under paragraph (c) of this section, the owner or operator shall prepare a list of equipment added to the batch product-process units.

(2) Maintain records demonstrating the proportion of the time during the calendar year the equipment is in use in a batch process that is subject to the provisions of this subpart. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit. These records are not required if the owner or operator does not adjust monitoring frequency by the time in use, as provided in paragraph (c)(3)(iii) of this section.

(3) Record and keep pursuant to §65.4 the date and results of the monitoring required in paragraph (c)(3)(i) of this section for equipment added to a batch product-process unit since the last monitoring period required in paragraphs (c)(3)(ii) and (iii) of this section. If no leaking equipment is found during this monitoring, the owner or operator shall record that the inspection was performed. Records of the actual monitoring results are not required.
§ 65.119 Recordkeeping provisions.

(a) Recordkeeping system. An owner or operator of more than one regulated source subject to the provisions of this subpart may comply with the recordkeeping requirements for these regulated sources in one recordkeeping system. The recordkeeping system shall identify each record by regulated source and the type of program being implemented (for example, quarterly monitoring, quality improvement) for each type of equipment. The records required by this subpart are summarized in paragraphs (b) and (c) of this section.

(b) General equipment leak records. (1) As specified in §65.103(a) through (c), 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 subpart P of this part through written documentation such as a log or other designation.

(2) The owner or operator shall keep a written plan as specified in §65.103(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 §65.103(d)(2) for any equipment that is designated as unsafe to repair.

(4) As specified in §65.103(e), the owner or operator shall maintain a record of 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 §65.103(f).

(6) The owner or operator shall keep records for leaking equipment as specified in §65.104(e)(2).

(7) The owner or operator shall keep records for leak repair as specified in §65.105(f) and records for delay of repair as specified in §65.105(d).

(8) For instrument response factor criteria determinations performed pursuant to §65.104(b)(2)(i), the owner or operator shall maintain a record of an