§ 63.1006 Valves in gas and vapor service and in light liquid service standards.

(a) Compliance schedule. (1) The owner or operator shall comply with this section no later than the compliance dates specified in the referencing subpart.

(b) Leak detection. Unless otherwise specified in §63.1002(b), or §63.1016, or in §63.1007(e), any connector that is designated, as described in §63.1003(d), as an unsafe-to-repair connector is exempt from the requirements of §63.1006(c), and paragraph (a) of this section.
paragraph (e) of this section, or the referencing subpart, the owner or operator shall monitor all valves at the intervals specified in paragraphs (b)(3) through (b)(6) of this section and shall comply with all other provisions of this section.

(1) Monitoring method. The valves shall be monitored to detect leaks by the method specified in §63.1004(b) and (c).

(2) Instrument reading that defines a leak. The instrument reading that defines a leak is 10,000 parts per million or greater.

(3) Monitoring period. (i) Each valve shall be monitored monthly to detect leaks, except as provided in paragraphs (b)(3)(ii), (e)(1), (e)(2), and (e)(4) of this section. An owner or operator may otherwise elect to comply with one of the alternative standards in paragraphs (b)(5) or (b)(6) of this section as specified in paragraph (b)(4) of this section.

(ii)(A) Any valve for which a leak is not detected for 2 successive months may be monitored the same month (first, second, or third month) of every quarter, beginning with the next quarter, until a leak is detected. The first quarterly monitoring shall occur less than 3 months following the last monthly monitoring.

(B) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(C) For purposes of paragraph (b) of this section, quarter means a 3-month period with the first quarter concluding on the last day of the last full month during the 180 days following initial startup.

(4) Allowance of alternative standards. An owner or operator may elect to comply with one of the alternatives specified in either paragraph (b)(5) or (b)(6) of this section if the percentage of valves leaking is equal to or less than 2.0 percent as determined by the procedure in paragraph (c) of this section. An owner or operator must notify the Administrator before implementing one of the alternatives specified in either paragraph (b)(5) or (b)(6) of this section.

(5) Allowable percentage alternative. An owner or operator choosing to comply with the allowable percentage alternative shall have an allowable percentage of leakers no greater than 2.0 percent for each affected facility or process unit and shall comply with paragraphs (b)(5)(i) and (b)(5)(ii) of this section.

(i) A compliance demonstration for each affected facility or process unit or affected facility complying with this alternative shall be conducted initially upon designation, annually, and at other times requested by the Administrator. For each such demonstration, all valves in gas and vapor and light liquid service within the affected facility or process unit shall be monitored within 1 week by the methods specified in §63.1004(b). If an instrument reading exceeds the equipment leak level specified in the referencing subpart, a leak is detected. The leak percentage shall be calculated as specified in paragraph (c) of this section.

(ii) If an owner or operator decides no longer to comply with this alternative, the owner or operator must notify the Administrator in writing that the work practice standard described in paragraph (b)(3) of this section will be followed.

(6) Skip period alternatives. An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(6)(i) or (b)(6)(ii) of this section. An owner or operator electing to use one of these skip period alternatives shall comply with paragraphs (b)(6)(iii) and (b)(6)(iv) of this section. Before using either skip period alternative, the owner or operator shall initially comply with the requirements of paragraph (b)(3) of this section. Monitoring data generated before the regulated source became subject to the referencing subpart that meets the criteria of either §63.1004(b)(1) through (b)(5), or §63.1004(b)(6), may be used to initially qualify for skip period alternatives.

(i) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0 as determined by the procedure in paragraph (c) of this section, an owner or operator may begin to monitor for leaks once every 6 months.

(ii) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0 as determined by the procedure in paragraph (c) of this section, an owner or operator may begin to monitor for leaks once every 6 months.
2.0 as determined by the procedure in paragraph (c) of this section, an owner or operator may begin to monitor for leaks once every year.

(iii) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with paragraph (b)(3) of this section, but can elect to comply with paragraph (b)(6) of this section if future percent of valves leaking is again equal to or less than 2.0.

(iv) The owner or operator shall keep a record of the monitoring schedule and the percent of valves found leaking during each monitoring period.

(c) Percent leaking valves calculation—calculation basis and procedures. (1) The owner or operator shall decide no later than the compliance date of this subpart, or upon revision of an operating permit whether to calculate percent leaking valves on a process unit or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis and this shall be the basis used for comparison with the subgrouping criteria specified in paragraph (b)(5)(i) of this section.

(2) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(d) Leak repair. (1) If a leak is determined pursuant to paragraph (b), (e)(1), or (e)(2) of this section, then the leak shall be repaired using the procedures in §63.1005, as applicable.

(2) After a leak determined pursuant to paragraph (b) or (e)(2) of this section has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repair.

(i) The monitoring shall be conducted as specified in §63.1004(b) and (c), as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraph (b) of this section may be used to satisfy the requirements of this paragraph, if the timing of the monitoring period coincides with the time specified in this paragraph. Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph.

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (d)(2) of this section, the owner or operator shall follow the provisions of paragraphs (d)(2)(i) and (d)(2)(ii) of this section, to determine whether that valve must be counted as a leaking valve for purposes of paragraph (c) of this section.

(A) If the owner or operator elected to use periodic monitoring required by paragraph (b) of this section to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraph (b) of this section, to satisfy the requirements of paragraph (d)(2) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) Special provisions for valves—(1) Unsafe-to-monitor valves. Any valve that is designated, as described in §63.1003(c)(1), as an unsafe-to-monitor valve, is exempt from the monitoring requirements of paragraph (b) of this section, and the owner or operator shall monitor the valve according to the written plan specified in §63.1003(c)(5).

(2) Difficult-to-monitor. Any valve that is designated, as described in §63.1003(c)(2), as a difficult-to-monitor valve, is exempt from the requirements of paragraph (b) of this section, and the owner or operator shall monitor the valve according to the written plan specified in §63.1003(c)(5).

(3) Less than 250 valves. Any equipment located at a plant site with fewer than 250 valves in regulated material service is exempt from the monthly monitoring specified in paragraph (b)(3)(i) of this section. Instead, the owner or operator shall monitor each valve in regulated material service for leaks once each quarter, or comply with paragraphs (b)(3)(ii)(A),
(b)(3)(ii)(B), or (b)(3)(ii)(C) of this section except as provided in paragraphs (e)(1) and (e)(2) of this section.

(4) No detectable emissions. (i) Any valve that is designated, as described in §63.1003(e), as having no detectable emissions is exempt from the requirements of paragraphs (b) through (c) of this section if the owner or operator meets the criteria specified in paragraphs (e)(4)(i)(A) and (e)(4)(i)(B) of this section.

(A) Tests the valve for operation with emissions less than 500 parts per million above background as determined by the method specified in §63.1004(c) initially upon designation, annually, and at other times requested by the Administrator, and

(B) Records the dates of each compliance demonstration, the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test.

(ii) A valve may not be designated or operated for no detectable emissions, as described in §63.1003(e), if the valve has an instrument reading greater than 500 parts per million above background.

§ 63.1007 Pumps in light liquid service standards.

(a) Compliance schedule. The owner or operator shall comply with this section no later than the compliance date specified in the referencing subpart.

(b) Leak detection. Unless otherwise specified in §63.1002(b), or §63.1016 of this subpart or paragraph (e) of this section, the owner or operator shall monitor each pump monthly to detect leaks and shall comply with all other provisions of this section.

(1) Monitoring method. The pumps shall be monitored to detect leaks by the method specified in §63.1004(b) of this subpart.

(2) Instrument reading that defines a leak. The instrument reading that defines a leak is 10,000 parts per million.

(3) Visual inspection. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal, a leak is detected. Unless the owner or operator demonstrates (e.g., through instrument monitoring) that the indications of liquids dripping are due to a condition other than process fluid drips, the leak shall be repaired according to the procedures of paragraph (b)(4) of this section.

(4) Visual inspection: Leak repair. Where a leak is identified by visual indications of liquids dripping, repair shall mean that the visual indications of liquids dripping have been eliminated.

(c) Percent leaking pumps calculation. (1) The owner or operator shall decide no later than the compliance date of this part or upon revision of an operating permit whether to calculate percent leaking pumps on a process unit basis or group of process units basis. Once the owner or operator has decided, all subsequent percentage calculations shall be made on the same basis.

(2) The number of pumps at a process unit shall be the sum of all the pumps in regulated material service, except that pumps found leaking in a continuous process unit or within 1 month after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(3) Percent leaking pumps shall be determined by the following equation:

\[
\%P_L = \left(\frac{(P_L - P_S)}{(P_T - P_S)}\right) \times 100
\]  

[Eq. 1]

Where:

\(\%P_L\) = Percent leaking pumps

\(P_L\) = Number of pumps found leaking as determined through monthly monitoring as required in paragraph (b) of this section.

\(P_T\) = Total pumps in regulated material service, including those meeting the criteria in