the requirements of paragraphs (b) and (c) of this section.

§ 63.1033 Open-ended valves or lines 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) Equipment and operational requirements. (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §§63.1021(b), 63.1036, 63.1037, and paragraphs (c) and (d) of this section. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. The operational provisions of paragraphs (b)(2) and (b)(3) of this section also apply.

(c) Emergency shutdown exemption. Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from the requirements of paragraph (b) of this section.

(d) Polymerizing materials exemption. Open-ended valves or lines containing materials that would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraph (b) of this section are exempt from the requirements of paragraph (b) of this section.

§ 63.1034 Closed vent systems and control devices; or emissions routed to a fuel gas system or process 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) Compliance standard. (1) Owners or operators routing emissions from equipment leaks to a fuel gas system or process shall comply with the provisions of subpart SS of this part, except as provided in §63.1002(b).

(2) Owners or operators of closed vent systems and control devices used to comply with the provisions of this subpart shall comply with the provisions of subpart SS of this part and (b)(2)(i) through (b)(2)(iii) of this section, except as provided in §63.1002(b).

(i) Nonflare control devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. The 20 parts per million by volume standard is not applicable to the provisions of §63.1016.

(ii) Enclosed combustion devices shall be designed and operated to reduce emissions of regulated material vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C (1400 °F).

(iii) Flares used to comply with the provisions of this subpart shall comply with the requirements of subpart SS of this part.

§ 63.1035 Quality improvement program for pumps.

(a) Criteria. If, on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or affected facility (or plant site) or three pumps in a process unit or affected facility (or plant site) leak, the owner or operator shall comply with the requirements specified in paragraphs (a)(1) and (a)(2) of this section.

(1) Pumps that are in food and medical service or in polymerizing monomer service shall comply with all requirements except for those specified in paragraph (d)(8) of this section.

(2) Pumps that are not in food and medical or polymerizing monomer