



Ohio Administrative Code

Rule 3745-205-52 Pumps in light liquid service - equipment leaks.

Effective: June 12, 2023

(A)

(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in paragraph (B) of rule 3745-205-63 of the Administrative Code, except as provided in paragraphs (D), (E), and (F) of this rule.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(B)

(1) If an instrument reading of ten thousand parts per million (ppm) or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(C)

(1) When a leak is detected, the leak shall be repaired as soon as practicable, but not later than fifteen calendar days after the leak is detected, except as provided in rule 3745-205-59 of the Administrative Code.

(2) A first attempt at repair (e.g., tightening the packing gland) shall be made no later than five calendar days after each leak is detected.

(D) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (A) of this rule, provided the following requirements are met:



(1) Each dual mechanical seal system shall be:

(a) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(b) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of rule 3745-205-60 of the Administrative Code; or

(c) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system shall not be a hazardous waste with organic concentrations ten per cent or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)

(a) Each sensor as described in paragraph (D)(3) of this rule shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that the sensor is functioning properly.

(b) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)

(a) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the



seal system, the barrier fluid system, or both based on the criterion determined in paragraph (D)(5)(b) of this rule, a leak is detected.

(b) When a leak is detected, the leak shall be repaired as soon as practicable, but not later than fifteen calendar days after the leak is detected, except as provided in rule 3745-205-59 of the Administrative Code.

(c) A first attempt at repair (e.g., relapping the seal) shall be made no later than five calendar days after each leak is detected.

(E) Any pump that is designated, as described in paragraph (G)(2) of rule 3745-205-64 of the Administrative Code, for no detectable emissions, as indicated by an instrument reading of less than five hundred ppm above background, is exempt from the requirements of paragraphs (A), (C), and (D) of this rule if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than five hundred ppm above background as measured by the methods specified in paragraph (C) of rule 3745-205-63 of the Administrative Code.

(3) Shall be tested for compliance with paragraph (E)(2) of this rule initially upon designation, annually, and at other times as requested by the director.

(F) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of rule 3745-205-60 of the Administrative Code, the pump is exempt from the requirements of paragraphs (A) to (E) of this rule.