**Section 724.953 Standards: Compressors**

a) Each compressor must be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (h) and (i).

b) Each compressor seal system, as required in subsection (a), must be as follows:

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

2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 724.960; or

3) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to atmosphere.

c) The barrier fluid must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

d) Each barrier fluid system, as described in subsections (a) through (c), must be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

e) Failure Detection

1) Each sensor as required in subsection (d) must be checked daily or must be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly, unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.

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

f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (e)(2), a leak is detected.

g) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

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

h) A compressor is exempt from the requirements of subsections (a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 724.960, except as provided in subsection (i).

i) Any compressor that is designated, as described in Section 724.964(g)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a) through (h) if the following is true of the compressor:

1) It is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

2) It is tested for compliance with subsection (i)(1) initially upon designation, annually and other times, as specified in the RCRA permit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)