

## 4.2 Inspection and Monitoring Requirements

### 4.2.1 Pumps in Light Liquid Service (264.1052 and 265.1052)

Each pump which is in light liquid service must be monitored monthly in accordance with *Method 21*. An instrument reading of 10,000 ppm or greater determines a leak. Each pump which is in light liquid service must also be checked by visual inspection each calendar week. Visible indications of liquids dripping from a pump seal determines a leak. When a leak is detected the owner or operator must repair it as soon as practicable but no later than 15 calendar days from detection. A first attempt at repair shall be made no later than five calendar days after each leak is detected.

A pump in light liquid service which is equipped with a dual mechanical seal system with a barrier fluid system, is exempt from the Method 21 monitoring requirements if the dual mechanical seal system meets one of three alternatives. These are: (1) the seal system is operated with a barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; (2) the seal system is equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device; or (3) the seal system is equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere. Regardless of the alternative that is used to meet the requirements of these standards, the barrier fluid system in the dual mechanical seal pump must not be a hazardous waste with organic concentrations 10 percent or greater by weight. Also, each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, failure of the barrier fluid system or both. Each sensor must be checked daily or be equipped with an audible alarm that is checked monthly to ensure that it is functioning properly. The owner or operator is required to visually inspect each pump weekly for indications of liquids dripping from the pump seals.

The owner or operator must determine, based on design considerations and operating experience, the criterion that indicate failure of the seal system and failure of the barrier fluid system. If there are any indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system and/or the barrier fluid system, a leak is detected. When a leak is detected, it must be repaired as soon as practicable but no later than 15 calendar days from detection. A first attempt at repair must be made no later than five calendar days after each leak is detected. Any pump that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background is exempt from the visual and

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instrument monitoring requirements. Delays of repair of equipment for which leak have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. For such instances, the repair must occur before the end of the next hazardous waste management unit shutdown. Delays of repair of equipment for which leaks have been detected are also permitted if the equipment is isolated from the hazardous waste management unit and does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight. Delay of repair for pumps is permitted if the repair requires the use of a dual mechanical seal system that includes a barrier fluid system and the repair is completed as soon as practicable, but no later than six months after the leak was detected.