The standards would apply to equipment in organic HAP service 300 or more hours per year that is associated with a elastomer product process unit, including valves, pumps, connectors, compressors, pressure relief devices, open-ended valves or lines, sampling connection systems, instrumentation systems, surge control vessels, bottoms receivers, and agitators. The provisions also apply to closed vent systems and control devices used to control emissions from any of the listed equipment.

a. *Pumps and valves.* Today's proposed standard requires leak detection and repair for pumps in light liquid service and for valves in gas or light liquid service. Standards for both are implemented in three phases. The first and second phases for both types of equipment consist of a leak detection and repair (LDAR) program, with lower leak definitions in the second phase. The LDAR program involves a periodic check for organic vapor leaks with a portable instrument; if leaks are found, they must be repaired within a certain period of time. In the third phase, the periodic monitoring (a work practice standard) is combined with a performance requirement for an allowable percent leaking components.

The standard requires monthly monitoring of pumps using an instrument and weekly visual inspections for indications of leaks. In the first two phases of the valve standard, quarterly monitoring is required. In phase three, semiannual or annual monitoring may be used by process units with less than 1 percent and less than 0.5 percent leaking valves, respectively.

In phase three, if the base performance levels for a type of equipment are not achieved, owners or operators must, in the case of pumps, enter into a quality improvement program (QIP), and in the case of valves may either enter into a QIP or implement monthly LDAR. The QIP is a concept that enables plants exceeding the base performance levels to eventually achieve the desired levels without incurring penalty or being in a noncompliance status. As long as the requirements of the QIP are met, the plant is in compliance. The basic QIP consists of information gathering, determining superior performing technologies, and replacing poorer performers with the superior technologies until the base performance levels are achieved.

b. *Connectors.* The rule also requires leak detection and repair of connectors in gas or light liquid service. The monitoring frequency for connectors is determined by the percent leaking connectors in the process unit and the consistency of performance. Process units that have 0.5 percent or greater leaking connectors are required to monitor all connectors annually. Units that have less than 0.5 percent may monitor biannually and units that show less than 0.5 percent for two monitoring cycles may monitor once every 4 years.

c. *Other equipment.* Subpart H also contains standards for other types of equipment, compressors, open-ended lines, pressure relief devices, and sampling connection systems. Compressors are required to be controlled using a barrier-fluid seal system, by a closed vent system to a control device, or must be demonstrated to have no leaks greater than 500 ppm. Open-ended lines must be capped or plugged. Pressure relief devices are required to be controlled using a closed vent system to a control device, a rupture disk, or must be demonstrated to have no leaks greater than 500 ppm HAP. Sampling connections must be a closed-purge or closed-loop system, or must be controlled using a closed vent system to a control device. Agitators must either be monitored for leaks or use systems that are better designed, such as dual mechanical seals. Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service are subject to instrument monitoring only if evidence of a potential leak is found through sight, sound, or smell. Instrumentation systems consist of smaller pipes and tubing that carry samples of process fluids to be analyzed to determine process operating conditions or systems for measurement of process conditions.

Surge control vessels and bottoms receivers are required to be controlled using a closed vent system vented to a control device. However, the applicability of controls to surge control vessels and bottoms receivers is based on the size of the vessel and the vapor pressure of the contents. Controls are required for surge control vessels and bottoms receivers meeting the criteria for Group 1 storage vessels. Further, in the proposed elastomer production provisions, surge control vessels and bottoms receivers located downstream from the stripper, that contain latex, are exempt from the equipment leak provisions.

d. *Other provisions.* Under certain conditions delay of repair beyond the required period may be acceptable. Examples of these situations include where: (1) A piece of equipment cannot be repaired without a process unit shutdown, (2) equipment is taken out of organic HAP service, (3) emissions from repair will exceed emissions from delay of repair until the next shutdown, and (4) equipment with better leak performance such as pumps with single mechanical seals are replaced with dual mechanical seals.

In addition, specific alternative standards are included for batch processes and enclosed buildings. For batch processes, the owner or operator can choose either to meet similar standards to those for continuous processes with monitoring frequency pro-rated to time in use of organic HAP, or to periodically pressure test the entire system. For enclosed buildings, the owner or operator may forego monitoring if the building is kept under a negative pressure and emissions are routed through a closed vent system to an approved control device.

The equipment leak standards require the use of Method 21 of appendix A of part 60 to detect leaks. Method 21 requires a portable organic vapor analyzer to monitor for leaks from equipment in use. Test procedures using either a gas or a liquid for pressure testing the batch system are specified to detect for leaks.

The standards would require certain records to demonstrate compliance with the standard and the records must be retained in a readily accessible recordkeeping system. Subpart H requires that records be maintained of equipment that would be subject to the standards, testing associated with batch processes, design specifications of closed vent systems and control devices, test results from performance tests, and information required by equipment in QIP.

6. Emissions Averaging

Today's proposed standards would apply basically the same emissions averaging scheme as has been adopted by the HON, although the emissions averaging provisions of the proposed rule are entirely contained in the proposed rule instead of referring to the subpart G emissions averaging provisions. Only owners or operators of existing sources may use emissions averaging. In addition, emissions averaging is only allowed within an affected source, where an affected source is generally defined as each process unit at a plant site that produces one of the twelve types of elastomer products. All HAP emissions, except those from batch front-end process vents, equipment leaks, and wastewater streams treated in a biological treatment unit, are allowed to be included in the average Up to 20 emission points may be included in emissions averages for all