

**4620.3570 HEPA-FILTERED NEGATIVE PRESSURE.**

Subpart 1. **General.** The containment must be provided with a HEPA-filter equipped ventilation system.

Subp. 2. **HEPA-filter equipped negative air requirements.** The HEPA-filter negative air machine must be equipped with:

- A. a calibrated pressure gauge to measure the pressure drop across the filter;
- B. an audible alarm or an automatic unit shutdown mechanism activated in the event of a breach in the filter or in the absence of a filter;
- C. an audible alarm or automatic unit shutdown mechanism activated when the differential pressure across the filter exceeds a preset pressure; and
- D. an automatic electrical power cutoff switch so the unit will not operate if the HEPA-filter is not present or not positioned correctly.

Subp. 3. **Continuous operation of HEPA-filter equipped ventilation system.** The HEPA-filter equipped ventilation system must operate continuously from the time of asbestos disturbance until results of analysis of the clearance samples indicate the air inside the containment is at or below the clearance standard or the alternative clearance standard.

Subp. 4. **HEPA-filter equipped system criteria.** The HEPA-filter equipped ventilation system must be operated according to the criteria in this subpart.

- A. The amount of air exhausted from the containment must provide for at least four air changes per hour within the containment.
- B. A negative pressure of at least 0.02 inches of water must be established and maintained within each containment with respect to the area outside of the containment.
- C. The negative pressure must be measured by a recording manometer.
  - (1) The recording manometer must be placed as far from the intake of the HEPA-filter equipped ventilation system as possible.
  - (2) The recording manometer must be placed to ensure that the reading is of the containment's negative pressure.
  - (3) The recording manometer must be monitored every two hours throughout all abatement work shifts to ensure continuous recording operation.
  - (4) The recording manometer must be zeroed before work begins each day.
  - (5) Each recording manometer must be calibrated at least annually.

(6) In the event of a failure of a recording manometer during a project, the following actions must be taken:

(a) an operating recording manometer must be placed in service within 24 hours of the failure of the initial recording manometer;

(b) until an operating recording manometer is placed in service, hourly pressure readings must be documented for all work shifts; and

(c) documentation must be available at the work site for each failure of the recording manometer.

Subp. 5. **Inability to establish or maintain a negative pressure of at least 0.02 inches of water.** If it is not possible to establish or maintain a negative pressure of at least 0.02 inches of water in the containment with respect to the pressure outside the containment for a period of 15 minutes, items A to D apply in addition to the requirements of subpart 4, item C.

A. A pressure as close to negative 0.02 inches of water as possible must be maintained from the time construction of the containment is completed until results from clearance air samples are obtained.

B. The amount of air exhausted from the containment must be increased to at least six air changes per hour within the containment.

C. Documentation must be available on site for each case of the failure to establish negative pressure or each case of failure to maintain a pressure of negative 0.02 inches of water in the containment with respect to the air pressure outside the containment. The documentation must specify the:

(1) probable cause of failure to establish or maintain the required negative air pressure;

(2) date of failure to establish or maintain the required negative air pressure;

(3) times of failure to maintain the required negative air pressure; and

(4) name of the asbestos site supervisor in charge of the site at the time of failure to establish or maintain the required negative air pressure in the containment with respect to the air pressure outside the containment.

D. Specific methods used to reestablish a negative pressure of at least 0.02 inches of water in the containment with respect to the air outside the containment must be documented and available for review on site.

Subp. 6. **HEPA-filtered ventilation system exhaust.** The HEPA-filter equipped ventilation system must be positioned to exhaust filtered air to the outside of the facility. If it is not technically feasible to exhaust the HEPA-filter equipped ventilation systems

outdoors, there must be air monitoring every four hours during abatement activity in the vicinity of the HEPA-filter equipped ventilation system exhaust.

**Statutory Authority:** *MS s 144.05; 326.70 to 326.81*

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