

INFORMATION MEMORANDUM 88-X-76 (Revised)

TO: All Health Compliance Personnel

FROM: W. M. Lybrand

SUBJECT: Asbestos Standard

DATE: February 26, 1990

1. Purpose

The purpose of this memorandum is to provide interpretation of Sections 1926.58 and 1910.1001 concerning removal and to ensure uniform enforcement.

2. Scope and Application

a. The construction standard applies to all operations specified in paragraph 1926.58(a), which includes but is not limited to demolition, renovation, and maintenance of structures, as well as, removal of asbestos, tremolite, actinolite or anthophyllite containing materials. The application of the standard is not restricted by the SIC code of the employer. Therefore, if a manufacturer uses his employees to remove asbestos from a building, piping system, boiler system or the like, those employees are covered under the asbestos standard for construction.

b. The general industry standard applies to the manufacturers of products which contain asbestos, tremolite, actinolite, or anthophyllite, automotive repair and other general exposures.

3. Regulated Areas

Paragraph 1926.58(e)(1) requires employers to establish regulated areas where airborne concentrations of asbestos, tremolite, anthophyllite, actinolite or a combination of these minerals exceed or can be expected to exceed the TWA and/or excursion limit. Paragraph 1910.1001(e) of the General Industry Standard requires the same.

a. The construction standard describes two distinctly different types of regulated areas which must be established based on the type of work being performed. Employers performing general construction operations, such as the cutting of asbestos-cement sheets, the lathing of asbestos-containing floor tiles, are required to establish regulated areas in accordance with paragraph 1926.58(e)(1) and demarcated in accordance with paragraph 1926.58(e)(2).

b. Paragraph 1926.58(e)(6) requires employers performing asbestos removal, demolition, and renovation operations to establish negative-pressure enclosures before starting their work, wherever feasible. Negative-pressure enclosures are considered to be feasible in all situations, except where space limitations prohibit the construction of the enclosure, or where the erection of a negative-pressure enclosure would create a greater hazard (e.g., toxic gases present in area). The enclosure must be established and managed by a competent person as defined in paragraphs 1926.58(b) and (e)(6)(iii).

c. Paragraph 1926.58(e)(6)(iv) grants exceptions from the requirements of establishing negative-pressure enclosures and designating a competent person, if the operation is small-scale and of short duration. For the purposes of this standard a “small-scale, short-duration” operation is defined as:

(1) Maintenance or renovation tasks, where the removal of asbestos-containing materials is not the primary goal of the job (e.g., repairing a valve which entails the removal of asbestos, installing electrical conduit which must be fastened to asbestos-cement siding, etc.)

(2) Activities where employees’ exposures to asbestos can be kept below the action and/or excursion limit such as glove bags, mini enclosures, or other methods described in Appendix G.

(3) An operation which has been included in the employer’s asbestos maintenance program (as required in Appendix G) of all employers who are claiming an exemption from the requirements of paragraph 1926.58(e)(6).

(4) Nonrepetitive operations (viz.: not a series of small-scale jobs, which if performed at one time would have resulted in a large-scale removal).

d. The industrial hygienist shall evaluate the employer’s program for establishing the requisite regulated areas under both standards by examining the following:

(1) If the employer has designated a competent person to setup and manage the regulated areas in accordance with paragraph 1926.58(e)(6)(ii)(A-H) (for construction only).

(2) If the employer’s initial monitoring data, or objective data was obtained in accordance with the prescribed sampling and analytical methods.

(3) If monitoring data from a similar work situation is used in lieu of monitoring the current worksite, the industrial hygienist must evaluate and compare the reported conditions and data, and conclude whether or not it is acceptable.

(4) If the employer has failed to establish a negative-pressure enclosure, the industrial hygienist must document that such an enclosure is in fact feasible, and that the project is not a small-scale, short duration operation. If the employer asserts that the activities are small-scale, short-duration, the industrial hygienist shall review the employer's asbestos maintenance program required by Appendix G of the standard (construction only).

Should small-scale, short duration personal monitoring reveal elevated levels of asbestos exposure above the action level and/or excursion limit document such things as work practices, time spent, number of employees inside, clothing worn, etc. Photos and sketches should be made to show conditions.

4. Hygiene Facilities and Practices Shower facilities erected in accordance with the construction asbestos standard shall be considered to be feasible except:
 - a. Small-scale, short duration operations exempt under 1926.58(j)(2)(i).
 - b. Where space limitation prohibit locating the shower facilities adjacent to the equipment room.
 - c. Where water is not available at the job site.
 - d. In these situations, however, the use of mobile decontamination units (trailers) equipped with an equipment room, a shower room, and a change room may be appropriate.
5. Monitoring Paragraphs 1910.1001(d)(1)(ii) and 1926.58(f)(1)(i) require each workplace or operation to be monitored.
 - a. Exposure shall be made from breathing zone air samples that are representatives of the 8-hour TWA and 30 minute short-term exposures of each employee.
 - b. Initial monitoring for 8 hour TWA or 30 minute excursion is required unless the employer uses objective data. This data should be reviewed during the opening conference.
 - c. Paragraph 1926.58(f)(2)(i) requires monitoring at the initiation of each job which is interpreted to mean that sampling must start on the first day of the project. Initiation of the job is when actual removal begins.
 - d. Paragraph 1926.58(f)(2)(ii) allows the employer to dispense with initial monitoring if the product cannot release airborne asbestos. For example, supportive data from a manufacturer may be used if it meets the following:
 - (1) Data must be objective and represent worst-case condition.

(2) Data must show that material cannot release airborne asbestos fibers at or above the action level and/or excursion limit under work conditions for which the product is used.

(3) Work conditions must correspond to those specified by the manufacturer.

e. Paragraph 1926.58(f)(2)(ii) allows employers to use historical data in lieu of initial monitoring. Historical data must meet the following:

(1) Data must be obtained during work operations conducted under workplace conditions closely resembling the process, type of material, control methods, work practices and environmental conditions used and prevailing in employer's current operations.

(2) The data bases utilized in lieu of initial monitoring must serve the same essential purposes that monitoring would otherwise serve. The results should be what would reasonably be expected if actual monitoring was performed.

(3) The data upon which judgments are based must be scientifically sound and be collected using methods that are sufficiently accurate and precise.

(a) Sampling and analytical procedures must conform to Appendix A.

(b) Name and organization of the person collecting the sample and performing the analysis must be recorded. Individuals performing analysis must have taken NIOSH course or equivalent.

(c) Sampling must be personal, taken in employee breathing zone for eight hours or 30 minutes – shorter time acceptable only if employee(s) physically leave the work area and do not return.

(d) Quality assurance procedures given in appendix A must be documented. Laboratory approval by AIHA for asbestos analysis and participation in the PAT program is acceptable in lieu of documentation.

(4) The process and work practices in use when the historical data were obtained are essentially the same as those to be used during the job for which initial monitoring will not be performed.

(a) Is the asbestos handled wet or dry?

(b) Are the same type of tools used?

(c) Is fixed equipment located in the same spatial arrangement?

(d) Are the physical dimensions of the work area essentially the same?

- (e) Is the equipment in the area operating during the work process?
- (f) Are the same number of employees involved?
- (g) Is the area enclosed with polyethylene curtains?
- (h) Are the tools kept in the contaminated area and decontaminated after use?
- (i) Are glove bags used?

(5) The characteristics of the asbestos material being handled when the historical data was obtained are the same as those on the job for which initial monitoring will not be performed.

- (a) Operation must involve same type of product, such as pipe covering, ceiling tile, asbestos containing coating, asbestos board, etc.
- (b) Characteristics of the product are the same.

(6) Environmental conditions prevailing when the historical data was obtained are the same as for the job for which initial monitoring will not be performed.

- (a) Dimensions of the work area should be substantially the same; for example, a room 10 x 100 x 10 would not be the same as one 25 x 40 x 10, although the area and volume are the same.
- (b) Ventilation, as it affects the work operation, should be the same.

f. Paragraph 1926.58(f)(3) & (4) allows the employer to discontinue daily monitoring if all employees are equipped with supplied air respirators or when employee exposures are below the action level.

6. Other

a. Paragraph 1926.58(m) and 1910.1001(l) requires the employer to institute a medical surveillance program and make medical examinations available.

If an employee refuses to take the medical examination and the employer has made a good faith effort to provide and make it available, the employer will not be cited.

An appropriate statement of refusal should be kept by the employer.

b. Paragraph 1926.58(m)(2)(i)(b) requires a medical exam when an employee is exposed at or above the action level and/or excursion for 30 or more days per year. The medical examination must be given within 10 working days following the

thirtieth day of exposure. Count the total days of exposure for all job sites within the last 12 months. Short-term exposure times may not be added over days to accumulate 30 days.

c. Methods of Compliance, Paragraph 1926.58(g): the employer must use one or any combination of the methods given in this subsection to reduce the exposure level within the PEL or reduce the exposure level to the lowest levels attainable and then use respirators to achieve the PEL.

The rotation of employees cannot be used as a means of compliance; and compressed air cannot be used to clean off employee clothing.

d. Regulated Areas, Paragraph 1926.58(e): employers are required to establish regulated areas if the PEL is exceeded or can reasonably be expected to exceed. The entry and exit procedures and the different types of rooms required shall be in accordance with Paragraphs 1926.58(e) & (j). Violations of the regulated area requirements can be cited only after the asbestos work has begun since there is no exposure until the asbestos work is started and since exposure monitoring probably will not commence until the asbestos work is started.

e. Paragraph 1926.58(f): requires a representative 8-hour TWA for each employee. If there is no representative full shift sample due to “voids” or “no counts”, resampling must be done.

f. Paragraph 1926.58(h): requires the employer to provide, where required by this section, and ensure the use of respirators. If the incorrect respirator is provided, cite under Paragraph 1926.58(h)(2)(i).

7. Violation Classification and Grouping

Violations shall be classified and grouped in accordance with the Industrial Hygiene Manual, Chapter II, page II-15.

8. Stays

Enforcement of Section 1910.1001, and Section 1926.58 as they apply to nonasbestiform tremolite, anthophyllite, and actinolite has been administratively stayed until November 30, 1990. In the interim, the nonasbestiform varieties of tremolite, anthophyllite, and actinolite are covered under the old asbestos standard which has been recodified as Section 1910.1101.

9. Information Memorandum 81 x 17 and 83 x 64 are cancelled.

APPENDIX A
ASBESTOS TRIGGERING EVENTS
1926.58 (Construction)

PRIOR TO INITIAL MONITORING – UNKNOWN ATMOSPHERE

-- Type “C” supplied air respirator required.

INITIAL MONITORING – [1926.58(f)(2)(i)] – Any workplace or operation where employees may be exposed to both 8 hour TWA and/or 30-minute excursion limit required. Personal sampling.

EXCEPTION [1926.58(f)(2)(iii)] - Historical data (furnished in opening conference) substitutes where dates follow requirements of paragraph 5(e) of IM #88-x-76, dated 4-13-88.

ABOVE PEL (8hr. TWA .2f/cc) and/or Excursion Limit (1f/cc over 30 minutes)

- Establish regulated areas [1926.58(e)(1)]
- Periodic Monitoring in regulated area – Required Daily [1926.58(f)(3)]

EXCEPTION: May be suspended if Type “C” respirators in positive pressure mode worn inside regulated areas.

- Implement engineering/work practice controls [1926.58(g)(1)(i)]
- Select appropriate respirators from Table 1 [1926.58(g)(2)(iii)]
- Protective clothing and equipment [1926.58(i)(1)]
- Establish hygiene facilities and practices [1926.58(j)(1)]

EXCEPTION: [1926.58(e)(6)(iv)] - Small-scale short term duration work.
(mini enclosures) See Appendix G and allowance or air bag/
(glove bag) glove bag procedure – Memos/correspondence
(negative air bag) attached for work practices.

NOTE: If fiber exposure is above AL of .1f/cc. 8hr.
exemption reverts back to need for full scale
regulated area.

ABOVE ACTION LEVEL (.1f/cc 8 hr. TWA or 1f/cc Excursion Limit)

- EMPLOYEE INFORMATION AND TRAINING [1926.58(k)(3)]
- MEDICAL SURVEILLANCE [1926.58(m)] – Employees exposed 30 days or more per year or required to use negative pressure respirators.
- PHYSICIAN WRITTEN OPINION – [1926.58(m)(4)(i)] – Copy to employee in

30 days.

REGARDLESS OF LEVEL –

WARNING LABELS [1926.58(k)] – all products containing asbestos or their containers

HOUSEKEEPING [1926.58(l)] – surfaces free of asbestos; spills removed by HEPA vacuum.

RECORDKEEPING [1926.58(n)] – Objective data, as well as accurate record of exposure. Exposure records may be maintained off site.

APPENDIX B
ASBESTOS TRIGGERING EVENTS
1910.1001 (General Industry)

PRIOR TO INITIAL MONITORING – UNKNOWN ATMOSPHERE

-- Type “C” supplied air respirator required.

INITIAL MONITORING – [1910.1001(d)(2)(i)] – Any workplace or operation where employees may be exposed to concentrations at or above the action level and/or 30 minute excursion limit required. Personal sampling.

EXCEPTION [1910.1001(d)(2)(ii)] – Historical data (furnished in opening conference) where representative and performed since 12/20/85.

ABOVE PEL (8 hr. TWA .2f/cc and/or Excursion Limit (1f/cc over 30 minutes)

- Establish regulated areas [1910.1001(e)(1)]
- Establish compliance plan [1910.1001(f)(2)(i)]
- Establish engineering controls [1910.1001(f)(1)(i)]
- Respiratory protection from Table 1 [1910.1001(g)(1)]
- Hygiene facilities – (change rooms, showers, lunch rooms) [1910.1001(i)]

ABOVE ACTION LEVEL (.1f/cc 8 hr. TWA or 1f/cc Excursion Limit)

- Information and Training – [1910.1001(j)(5)(i)]
- Medical Surveillance – [1910.1001(l)(1)(i)]
- Physician Opinion – [1910.1001(l)(7)(i)]

REGARDLESS OF LEVEL –

- WARNING LABELS [1910.1001(j)(2)(i)] – All products containing asbestos or their containers.
- HOUSEKEEPING [1910.1001(k)] – Surfaces free of asbestos; spills removed by HEPA vacuum.
- RECORDKEEPING [1910.1001(m)(1)(i)] – Objective data, as well as record of exposure. Exposure records may be maintained off site.