U.S. Department of Labor

Assistant Secretary for
Occupational Safety and Health
Washington, D.C. 20210

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JAN 16 1987

OSHA Instruction CPL

Office of Health Compliance Assistance

Subject: Inspection Procedures for 29 CFP 1910.1001 -- Asbestos, Tremolite, Anthophyllite, and Actinolite Standard

A. Purpose. This instruction establishes policies and provides clarification to ensure uniform enforcement of 29 CFR 1910.1001--Asbestos, tremolite, anthophyllite, and actinolite.

C. References. 29 CFR 1910.1200--Hazard Communication Standard

D. Cancellation. This instruction cancels OSHA Instructions CPL 2-2.2 and CPL 2-2.21A.

E. Action. OSHA Regional Administrators and Area Directors shall ensure that the guidelines presented in this instruction are followed. The Directorate of Field Operations shall provide whatever support is necessary to assist the Regional Administrators and Area Directors in enforcing the Asbestos, Tremolite, Anthophyllite, and Actinolite Standard.

F. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.

2. Provide a copy of the Federal Register notice to the State designee upon request.

3. Explain the technical content of the Federal Register notice to the State designee upon request.

4. Ensure that State designees acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgement should include the State's intention to follow the enforcement policies described in this instruction, or a description of the State alternative policy

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which is "at least as effective" as the Federal policy.

5. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State personnel. Routine monitoring activities shall also be used to determine if this change has been implemented by actual performance.

G. Background. The organization of the new Asbestos Standard is similar to many other OSHA expanded health standards. Published on June 20, 1986 this standard replaces the existing standard at 29 CFR 1910.1101. The old standard was renumbered to 29 CFR 1910.1101 to avoid confusion.

1. The new asbestos standard incorporates a much improved set of criteria against which employers can be evaluated on compliance inspections. Every attempt has been made to develop a clear standard that will result in uniform application. The purpose of this directive is to supplement the guidance that is already present in the standard.

2. Compliance Safety and Health Officers (CSHOs) must look to the standard for much of the guidance necessary for the implementation of this standard. The standard is generally written in specification language providing clear goals.

H. Organization of this Instruction. Compliance guidelines and policy considerations are addressed following a brief summary of each major section of the standard. Appendices including major interpretations and specific industry inspection guidelines will be added as enforcement experience, with his new standard builds. Two tables are currently incorporated into this directive. Table 1 summarizes the standards start up dates. Table 2 shows its periodic monitoring requirements.

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I. Regional Input. Regional Administrators and Area Directors shall communicate all related difficulties to the Office of Health Compliance Assistance, Directorate of Field Operations.

J. Inspection Guidelines. The following guidance provides a general framework that is designed to assist the CSHO with inspections.

1. CSHO Protective Equipment. CSHOs shall determine during the opening conference the types of personal protection needed in the workplace. A review of employer air monitoring data may be necessary during the opening conference to assist in determining the types of protection necessary before the walkaround begins.

2. Scope and Application: 29 CFR 1910.1001 applies to occupational exposures to asbestos, tremolite, anthophyllite, and actinolite relating to primary and secondary manufacturing, of products containing there minerals, automotive brake and clutch repair, and shipbuilding and repair. Occupational exposures relating to construction activities which include new construction, asbestos removal, demolition, building renovation, and routine maintenance in commercial, residential, and general industrial facilities are covered by 29 CFR 1926.58. Inspection procedures for 29 CFR 1926.58 are covered under CPL 2-2._____

3. Definitions--1910.1001(b). Specifically noteworthy is the definition for the term "Asbestos". The definition broadens the meaning to include all known forms of astestos regardless of whether or not they have been chemically treated.

4. Exposure Monitoring. This section requires employers to have completed initial monitoring by October 20, 1986. Personal monitoring is to be performed within the breathing zone of employees. Samples taken must be representative of all potentially exposed job classifications on all shifts.

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a. All job classifications with exposures above the action level must be remonitored at least every six-months. Such monitoring may be discontinued where the results of monitoring support a statistically reliable reduction to a level below the action level.

b. Objective Data. No air monitoring is required where the employer has reliable information supporting a technical claim that a product will not expose employees above the action level. Such supportive data might be based on documentation demonstrating that the asbestos product is encapsulated or bonded in a matrix or the like.

c. Sampling Methods. Employers may use the OSHA Reference Method (ORM) or any other equivalent method. Paragraph (d)(6) of the standard provides equivalency criteria that are used to validate alternative sampling techniques.

d. Termination of Monitoring 29 CFR 1910.1001(d)(4). Monitoring may be terminated whenever the results of statistically reliable sampling indicate that an employees' exposure is below the action level.

e. Evaluating Employer Sampling Data. The CSHO will review employer sampling data on all inspections that include an evaluation of asbestos compliance. The proper review of the data is critical to the success of the overall compliance determination. The review should proceed according to the following hierarchy:

(1) Examination of Monitoring Protocol. Before reviewing the employer's actual sampling results a thorough review of sampling protocol used

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to collect the samples must be made. The CSHO must determine whether sound industrial hygiene principles were employed in the design of the employer's protocol. Protocol elements such as calibration, both pre and post survey, and documentation of the workplace conditions when samples were taken are among the types of elements to be reviewed.

(2) Data Review. This level of review shall not be undertaken unless the requirements under (j)(3)(e)(1) of the directive are satisfied. Where significant amounts of monitoring data are available a cursory statistical review of the data should be performed to determine the range of exposure levels. Often single excursions above the PEL will be encountered. When found the compliance officer must try to determine whether an explanation for the high exposure level exists. One would expect a ventilation failure, process upset or like occurrence to affect airborne asbestos exposure levels. Excursions that appear to be statistical flukes shall be discounted as many events such as tampering or unintentional salting of the sample can sometimes occur undetected.

(3) Operational Variability. Much concern continues to center around this issue. Many factors affect airborne contaminant levels. Significant variations in ambient concentrations can result for many reasons including those discussed under (j)(3)(e)(2) above. Consistent variations around the PEL spark more concern then consistent variation far below or

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above the PEL. Compliance actions are appropriate where employer exposure data indicates excursions above the PEL and such data can not be discounted as a statistical fluke.

f. OSHA Sampling Data. CSHO's shall ensure that information relating to production levels, status of engineering control function, and other relevant workplace condition information is carefully documented in the case file. This type of information is essential when disputes result due to apparent differences between employer and OSHA monitoring results. The compliance officer shall strive to collect samples on days and for operations that are representative of normal operations. Data above the PEL documented during predictable incidents such as routine spills leaks and the like shall result in appropriate compliance actions. Compliance actions resulting from the documentation of unpredictable excess exposures should be confined to violations relating to employee information and training and medical surveillance.

g. Additional Monitoring. As in all OSHA expanded health standards additional monitoring must be performed whenever a personnel, work practice, process change or other changes such as environmental factors that may influence ambient conditions or any other relevant condition is encountered.

5. Regulated Areas. Paragraph 29 CFR 1910.1001(e)(1) requires employers to establish regulated areas as soon as possible after the results of the initial monitoring indicate levels in excess of the PEL, but no later than November 17, 1986.

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a. The CSHO shall review and evaluate the employers initial monitoring data (i.e., area and personal sampling results) to determine if a valid method was used in establishing regulated areas. CSHOs may determine valid methods by examining the following in conjunction with Appendices A and B of the standard:

   (1) If qualified personnel were used to take samples

   (2) Calibration and sampling equipment used

   (3) Proper sampling procedures,

   (4) Laboratory services used

b. When examining the monitoring data if the CSHO finds that an employer has not established a regulated area or has underestimated the boundaries, a serious citation shall be issued requiring additional monitoring.

c. If the CSHO finds that regulated areas are not properly identified with the appropriate warning signs, a serious citation shall be issued for violation of 29 CFR 1910.1001--(j)(1)(i).

d. Paragraph (e)(5) prohibits employees from eating, drinking, smoking, chewing tabacco or gum, or applying cosmetics in regulated areas.

6. Methods of Compliance.

a. Engineering and Work Practice Controls. This section requires that employers implement feasible engineering and work practice controls to reach the PEL or the lowest level achievable, whichever is higher, as soon as possible but no later than 25 months from the date of

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publication of this standard. The most significant changes to the engineering control provisions are as follows:

(1) For the operations specified in 29 CFR 1910.1001(f)(1)(iii), when all feasible engineering and work practice controls have been installed but are not capable of reducing employee exposure below the PEL, the controls shall be used to reduce employee exposure to or or below 0.5 fibers per cubic centimeter in conjunction with respiratory protection capable or further reducing employee exposures to or below the PEL.

(2) Paragraph 29 CFR 1910.1001(f)(1)(vii) prohibits the spraying of materials containing asbestos, tremolite, anthophyllite, or actinolite.

(3) Paragraph 29 CFR 1910.1001(f)(1)(ix) prohibits the use of compressed air to remove asbestos tremolite, anthophyllite, or actinolite or materials containing them unless used in conjunction with a ventilation system capable of capturing the dust cloud.

(4) Assessing engineering and work practice controls. All engineering and work practice controls are required to be installed as soon as possible but no later than July 20, 1988.

(a) Documentation of violations of 29 CFR 1910.1001(f)(1) prior to July 20, 1988. Ir order to demonstrate that employer did not install particular engineering or work practice control as soon as possible the CSHO must document that:

1 feasible controls are available

2 the controls are capable of reducing employee exposure

3 that the controls could in fact have been installed in the time frame that had passed since the publication of the standard

4 changes in operations or new production units must be in compliance with the new levels upon start-up

5 citations alleging that engineering controls were not installed as soon as possible must be approved by the Director of Field Operations prior to issuance

(b) Interim compliance level from engineering and work practice controls. During the time period between the effective date of the new asbestos standard and July 20, 1988 deadline for the installation of engineering and work practice controls, the requirements of the asbestos standard issued in June 1972 as amended and recodified as 29 CFR 1910.1101 remain in effect. Therefore, during this interim period engineering and work practice

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controls capable of achieving the 2 fiber per cubic centimeter PEL of the June 1972 standard must remain in place, until the new control measures can be implemented. Citations for violation of theengineering control requirements of 29 CFR 1910.1101 shall be issued where appropriate.

b. Compliance Program. This section requires employers to establish and implement a written compliance program as soon as possible but no later than July 20, 1987 for all areas where the PEL is exceeded.

NOTE: All testing including point source studies where necessary, must be completed by July 20, 1987.

(1) Assessing Compliance Programs.

(a) The compliance program shall contain at least the following:

1 a description of the process which exceeds the PEL, and an indication of the factor(s) which apparently are causing the overexposure(s)

2 a desciption of the engineering and/or work practice controls that are to be implemented to reduce employee exposure to or below the PEL

3 a time table for the implementation of the engineering/work practice controls.

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4 Where permitted by the standard, a description of the combination of engineering controls, work practice controls, and respiratory protection that will be used to achieve the PEL.

(b) Administrative controls. Paragraph (f)(2)(iv) prohibits the use of employee rotation to achieve compliance with the PEL.

(2) Citations. There are no parallel provisions in the asbestos standard issued in June, 1972 as amened and published in 29 CFR 1910.1101 requiring the establishment and implementation of compliance plans. Therefore, the employer is not required to have a written compliance plan until July 20, 1987, unless it can be shown that the employer did not develop and implement the program as soon as possible.

(a) Documentation to prove that the employer did not establish a written compliance program as soon as possible must consider the following:

1 the complexity of the measures required to achieve compliance

2 employer knowledge that control measures are available and required to be implemented

3 all citations alleging that the compliance plan

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was not established or implemented as soon as possible must be approved by the Director of Field Operations prior to issuance.

(b) Update of Compliance Program. Paragraph (f)(2)(ii) requires the review and update of the compliance program as necessary to reflect significant changes in the employers' compliance status. CSHO's should consider the following in determining if an employer's plan must be updated:

1 changes of equipment, processes, or work practices subsequent to the last revision of the plan

2 changes in employee exposure levels subsequent to the last revision of the compliance program

7. Respiratory Protection. Paragraph (g) of the standard requires employers to provide and ensure the use of respirators where employees are exposed in excess of the PEL. Some of the significant changes from the requirements of the asbestos standard issued in June 1972 as ameded and published in 29 CFR 1910.1101 are as follows:

a. Respirator selection. The respirator selection table is presented in the standard as Table I. In addition, paragraph (g)(2)(i), of the standard requires employers to furnish employees with powered air purifying respirators whenever:

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(1) the employee chooses to use this type of respirator, and
(2) the powered air purifying respirator will provide adequate protection to the employee

b. Respirator program. Paragraph (g)(3) of the standard requires the employer to establish a respirator program. The respirator program must:

(1) Be in accordance with 29 CFR 1910.134(b),(d),(e), and (f)

(2) Allow employees to leave the regulated areas to wash their faces and respirator face pieces

(3) Provide for the removal of employees from the regulated area if an examinng physician determines that the employee will be unable to fuction normally wearing a respirator. The employer will retain the same seniority, status, and rate of pay as before the removal from the regulated area.

c. Respirator fit testing. Paragraph (g)(4) requires employers to conduct either qualitative or quantitative fit tests for all employees wearing negative pressure respirators. The test must be performed upon initial fitting and at least every six months thereafter. Qualitative fit test may only be used for half-mask respirators.

8. Protective work clothing and equipment. Paragraph (h)(1) of the standard requires employers to provide at no cost, appropriate protective work clothing and equipment when the employee is exposed to asbestos, tremolite, anthophyllite, actinolite, or a combination of these minerals above the PEL, or where the possibility of eye irritation exists.

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a. Appropriate protective work clothing includes, but is not limited to the following:

(1) Coveralls or similar full-body work clothing

(2) Gloves, head coverings, and foot coverings

(3) Face shields, vented goggles, or other appropriate protective equipment which complies with 29 CFR 1910.133.

b. Removal and storage. Paragraph (h)(2)(i) of the standard requires employers to ensure that employees remove all contaminated working clothing in change rooms provided in accordance with paragraph (i)(1) of the standard.

(1) All contaminated work clothing shall be placed and stored in containers which prevent the dispersion of asbestos, tremolite, anthophyllite, and actinolite outside the container.

(2) Paragraph (h)(2)(iv) of the standard requires employers to label containers containing contaminated protective devices or work clothing which are to be taken out of change rooms or the workplace for cleaning, maintenance or disposal. Containers not properly labeled will result in a violation of 29 CFR 1910.1001 (j)(2).

c. Cleaning and Replacement. Paragraph (h)(3)(i) requires the employer to clean, launder, repair, or replace protective clothing and equipment in order to maintain their effectiveness.

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Clean clothing and equipment shall be provided at least weekly. In addition the following reqirements must be evaluated:

(1) The removal of asbestos, tremolite, anthophyllite, and actinolite by blowing or shaking is prohibited by paragraph (h)(3)(ii) of the standard.

(2) Any person who launders or cleans contaminated protective clothing or equipment shall be informed of the potential harmful effects of asbestos, tremolite, anthophyllite, or actinolite.

9. Hygiene Facilities and Practices. The standard includes requirements for change rooms, showers and lunchrooms that are triggered when airborne levels of asbestos, tremolite, anthophyllite, actinolite, or a combination of these minerals are above the permissible exposure limit.

a. Construction plans must be completed by January 16, 1987. Construction of these facilities must be completed no later than July 20, 1987.

b. Lunchrooms must have a positive pressure filtered air supply and be readily accessible to employees. Facilities located remotely contamination do not need special control equipment.

10. Communication of hazard to employees. The asbestos standard is designed to serve a companion role with the Hazard Communication Standard (HCS). Minimal specific requirements for label warnings and modified requirements for transmission of hazard information are included.

a. Labels. Paragraph (j)(2) of theAsbestos standard establishes

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uniform "appropriate hazard warnings" for asbestos containing products. The phrase "appropriate hazard warning" is a requirement for labels for the HCS, reference 29 CFR 1910.1200(f). In addition to the specific warnings provided under (j)(2) of this standard the following is required:

(1) Identity of the product, reference 29 CFR 1910.1200(f)(i)(i) and

(2) The name and address of the chemical manufacturer or importer, reference 29 CFR 1910.1200 (f)(1)(iii). (Note for shipped products only).

b. <u>Materials Safety Data Sheets (MSDS)</u>. MSDS must comply with the reqirements of the HCS. The MSDS must also reflect all other hazardous components when asbestos is not the only hazardous component in the product.

c. <u>Transmission of MSDS and Labels</u>. Paragraph (j)(4) of the standard establishes a different criteria than the HCS for the creation of labels and MSDS's for the asbestos constituent of a product. Essentially the asbestos constituent of a product does not have to be communicated by labels or on the MSDS unless:

(1) Exposure above the action level can occur during any forseeable use of the product or,

(2) A combination of these minerals are present in the product at 0.1 percent or above.

d. <u>Employee Information and Training</u>. Employee information and training, section 1910.1001(j)(5) supersedes the information and training provision of the HCS.

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(1) The employer needs to institute a training program only when employees are exposed to asbestos at or above the action level. Training may be in a language other than English.

(2) The effectiveness of the training program must be evaluated through a review of the program and discussion with employees. The following questions provide a general outline for CSHO's to use when evaluating the program:

(a) Has a training and information program been established for employees exposed at or above the action level?

(b) Is training provided prior to or at the time initial assignment and at least annually thereafter?

(c) Has the training program been conducted in a manner which the employee is able to understand:

<u>1</u> In a language the employee readily understands, and

<u>2</u> At a level the employee can comprehend

(3) <u>Employee information</u>. Have employees been informed of:

(a) The health effects associated with asbestos, tremolite, anthophyllite, and actinolite exposure

(b) The relationship between

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smoking and exposure to asbestos, tremolite, anthophyllite, actinolite in producing lung cancer

(c) The quantity, location, manner of use, release and storage of asbestos, tremolite, anthophyllite, or actinolite and the specific nature of operations which could result in exposure to asbestos, tremolite, anthophyllite, or actinolite

(d) The engineering controls and work practices associated with the employee's job assignment

(e) The specific procedures implemented to protect employees from exposure to asbestos, tremolite, anthophylite, or actinolite, such as appropriate work practices, emergency and clean-up procedures, and personal protective equipment to be used

(f) The purpose, proper use, and limitations of respirators and protective clothing

(g) The purpose and a description of the medical surveillance program required by paragraph (l) of this standrd

(h) A review of this standard, including appendices

e. Access to information and training requirements. Paragraph (J)(5)(iv) of the standard requires the employer to make available without cost a copy of the standard and its appendices to all

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employees exposed at or above action level.

11. Housekeeping.

a. CSHO shall determine and observe clean-up methods where feasible to evaluate whether proper techniques are being utilized. Poor housekeeping work practices are well documented sources of significant exposure.

b. Exposure resulting from clean-up shall be included as part of an employees exposure when clean-up is a normal part of the duties associated with the occupation being evaluated.

c. Housekeeping, will not be cited unless there maybe an employee(s) exposed at or above the action level.

12. Medical Surveillance. 29 CFR 1910.1001(L) requires employers to implement a medical surveillance program and to provide medical examinations as soon as possible but no later than November 17, 1986. Some of the significant changes regarding medical surveillance are:

a. All employees that are or will be exposed to asbestos, tremolite, anthophyllite, actinolite or a combination of these minerals at or above the action level must be included in the medical surveillance program.

b. The examinations must be performed by or under the supervision of a licensed physician. The employer must obtain a signed written opinion from the examining physician. The employer shall provide a copy of the physician's written opinion to the affected employee within 30 days of receipt.

c. The employer must provide a preplacement examination before the

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prospective employee is assigned to an area in which he/she will be exposed to any airborne concentration of asbestos.

d. The employer must provide annual medical examinations, except the frequency of chest roetgenograms shown in Table 2 of the standard shall be followed.

e. Termination of employment examinations must be provided to employees that were exposed above the action level. The termination of employment examinations must be conducted within 30 calendar day period before or after the date of separation.

f. Paragraph (l)(6) of the standard requires the employer to supply information concering the affected employee's duties and exposures to the examining physician.

g. If an employee refuses to take the required medical examination, it should be determined if the employer has made a good faith offer to provide or make available , at no cost to the employee, the required medical examination. If the employer has demonstrated such good faith, the employer would be in compliance with the regulation. An appropriate statement should be kept by the employer as a record under Section 29 CFR 1910.1001(m)(3)(i). A written form signed by the employee, to the effect that he will not take a physical examination, would be such an appropriate statement.

13 Recordkeeping. Paragraph (m) of the standard requires the employer to maintain records of employee exposure measurements, of objective data of which an exemption from the standard is based under paragraph (d)(2)(iii), of employee medical surveillance, and of employee training.

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CSHO's shall examine the employer's records to determine, if they are being maintained accurately, completely and in accordance with this standard.

a. Exposure records. The CSHO shall examine employer exposure data as well as OSHA air sampling results to determine if the employer is in compliance with all of the provisions of the standard that are triggered by the action level and the PEL.

b. Medical Records Examination. The CSHO shall examine a representative number of employee medical surveillance records to ensure that the medical records are complete, are accurate, and are up to date. Paragraph (m)(5)(i) requires the employer to furnish the records to OSHA. When the requested medical records are employee identifiable, the records shall be obtained in accordance with the requirements of 29 CFR 1910.20(e)(3)(ii), and the Field Operations Manual (FOM).

c. Effective Date. The effective date for the recordkeeping requirements of the standard is July 21, 1986. However, many of the provisions of the standard which require that data be obtained do not go into effect for several months following the effective date of the standard. The effective dates of these provisions are as follows:

(1) Initial exposure monitoring - October 20, 1986

(2) Medical surveillance - November 17, 1986

(3) Training - October 20, 1986

(4) Objective data - October 20, 1986

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14. Observation of Monitoring.

a. The standard requires employers to afford employees or their designated representatives an opportunity to observe any monitoring which is required under paragraph (d) of the standard.

b. The observer must be provided with all required protective clothing and/or equipment. The observer may need to be trained in the use of such protective equipment and where exposure levels willbe at or above the action level to receive training in accordance with paragraph (j)(5) of the standard.

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TABLE 1

ASBESTOS START UP DATES AND TRIGGERING EVENTS

1910.1001(d)(2) Intital Monitoring
(October 20, 1986)

ABOVE ACTION LEVEL

1910.1001(j)(5) INFORMATION
TRAINING - OCT . 20, 1986

1910.1001(I) MEDICAL
SURVEILLANCE - NOV 17, 1986

BELOW ACTION LEVEL

No action required

ABOVE THE PEL

1910.1001(e) Regulated Areas
- November 17, 1986
1910.1001(f)(2) Compliance Plans
- July 20, 1987
1910.1001(f)(1) Engineering Controls
- July 20, 1988
1910.1001(g) Respiratory Protection
> 2 f/cc - 7/21/86
> PEL < 2 f/cc 10/17/86
PAR from (g)(2)(ii) - 1/16/86
1910.1001 Hygiene Facilities, Lunchrooms
-7/20/87 unless below
PEL by 7/20/88; then 7/20/89 at latest

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TABLE 2

ASBESTOS STANDARD
PERIODIC REQUIREMENTS

Intitial Monitoring
(October 20, 1986)

Above Action Level	Below Action Level
1910.1001(d)(3) Periodic Monitoring -at least every 6 months	1910.1001(d)(4) Changes in Monitoring -monitoring may be discontinued
1910.1001(f)(2)(ii) Compliance Plan Updates -as necessary to keep current	
1910.1001(g)(4)(ii) Respirator Fit Testing -at least every 6 months	
1910.1001(h)(3)(i) Cleaning and Replacement -at least weekly	
1910.1001(l)(2)(i) Showers -end of each work shift	

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