Asbestos-Containing Materials in School Buildings: A Guidance Document Part 2

PLAINTIFF'S EXHIBIT

UC-2944

APPENDIX F

SUGGESTED SPECIFICATIONS FOR ASBESTOS REMOVAL

The following are suggested specifications which should be presented to a prospective contractor to determine whether a renovation or asbestos removal job can be accomplished in a safe and satisfactory manner.

1. Documentation of Performance in Asbestos Removal

   a. The contractor shall furnish documentation of successful performance in asbestos removal. This will include name and address of purchaser of service, location of work performed, and a record or air monitoring for asbestos as required by OSHA 1910.1001.

   b. The contractor will have at all times in his possession at his office (one copy) and in view at the job site (one copy), OSHA regulation 1910.1001, Asbestos, and Environmental Protection Agency 40 CFR Part 61, subpart B: National Emission standard for asbestos, asbestos stripping work practices, and disposal of asbestos waste.

2. Scope of Work

   a. The contractor shall furnish all labor, materials, services, insurance and equipment necessary for the complete removal of all asbestos located at the site in accordance with the

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guidelines or regulations of the responsible state agency, EPA and OSHA.

b. The contractor shall furnish proof that employees have had instruction on the dangers of asbestos exposure, on respirator use, decontamination, and OSHA regulations.

3. Worker's Dress and Equipment for Asbestos Removal

a. Work clothes will consist of full body coveralls, disposable head covers, boots, or sneakers, and respiratory protective equipment as required by OSHA regulations. Eye protection and hard hats should be available as appropriate.

b. Coveralls should be of a paper disposable type.

c. Respiratory protection for workers shall be provided by the contractor as required by current OSHA regulation.

3. Decontamination

All workers, without exception:

a. Will change work clothes at designated areas prior to start of day's work. Lockers or acceptable substitutes will be provided by the contractor for street and work clothes.

b. All work clothes will be removed in the work area prior to departure from this area. Workers would then proceed to showers. Workers will shower before lunch and at the end of each day's work. Hot water, towers, soap, and hygienic conditions are the responsibility of the contractor.

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3. No smoking, eating or drinking is to take place once beyond the clean room at the job site. Prior to smoking, eating or drinking, workers will fully decontaminate by showering. Each worker will then dress into a new clean disposable coverall to east, smoke or drink. This new coverall can then be used to reenter the work area.

4. Work footwear will remain inside work area until completion of the job.

5. Pre-Asbestos Removal Preparation

   a. The contractor will thoroughly seal all openings and fixtures including, but not limited to, heating and ventilating ducts, sky lights, doors, windows, and lighting with polyethylene taped securely in place.

   b. Polyethylene sheets (6 mil minimum) will be used to cover the entire floor and wall surfaces.

   c. The contractor will set up a decontamination facility in a predesignated area which will house the changing room, shower area, and equipment area.

   d. Adequate toilet facilities should exist in the work area to avoid decontamination for this purpose. Where such facilities do not exist, the contractor will provide portable service.

   e. Procedures will be written for evacuation of injured workers. Aid for a seriously injured worker will not be delayed for reasons of decontamination.

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6. Methods of Asbestos Removal

a. The asbestos material will be sprayed with water containing an additive to enhance penetration. The additive, or wetting agent, will be 50 percent polyethylene ester and 50 percent polyoxyethylene ether at a concentration of 1 ounce per 5 gallons of water. A fine spray of this solution must be applied to prevent fiber disturbance preceding the removal of the asbestos material. The asbestos will be sufficiently saturated to prevent emission of airborne fibers in excess of the exposure limits prescribed in the OSHA standards referenced in these specifications.

b. Removal of the asbestos material will be done in small sections with two-person teams, on staging platforms, if needed. The material will be packed into labeled 6-mil plastic bags held within 55-gal drums prior to starting the next section to prevent the material from drying.

c. Packed and sealed drums, with the required labeling, will be delivered to a predesignated disposal site for burial. Labels and all necessary signs shall be in accordance with EPA and OSHA standards.

d. Following removal, the entire area will be wet cleaned. After a 24-hour period to allow for dust settling, the entire area will be wet cleaned again. During this settling period, no entry, activity, or ventilation will

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be allowed. Twenty-four hours after the second cleaning all surfaces in the entire work area will be thoroughly vacuumed and wet mopped.

e. All polyethylene material, tape, cleaning material, and clothing will be placed in plastic-lined drums, sealed and labeled as described above for the asbestos waste material.

f. All equipment will be cleaned of asbestos material prior to leaving the work area.

7. Air Monitoring

a. Throughout the removal and cleaning operations, air sample monitoring will be conducted to ensure that the Contractor is complying with all codes, regulations and ordinances. The method to be used is described in OSHA standards, 1910.93a. The air monitoring technician and his equipment will be subject to approval of the purchaser's representative. Prior to the start of any work, the technician's method of measurement and proof that his method is approved by the Secretary of Labor of the United States will be submitted to the purchasers representatives for his approval.

b. Air monitoring will be performed to provide the following samples during the period of asbestos removal:

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Area to be sampled	Number of samples	Minimum sample volume in liters
Work area	4	60
Outside work area barriers	2	120
Outside building	2	240

Samples will be taken after the actual removal operation has begun.

8. Clean-up and Guarantee

a. After the second cleaning operation the following test should be performed: A complete visual inspection should be made to insure dust free conditions, and two air samples within 48 hours after completion of all cleaning work should be taken. (Minimum volume of air sample 240 liters).

b. If noncompliance occurs, repeat cleaning and measurement until space is in compliance. Refer to 29 CFR 1910.1001, 7a.

9. Disposal of Asbestos Material and Related Debris

a. All asbestos materials and miscellaneous debris in sealed drums will be transported to the predesignated disposal site in accordance with the guidelines of the U.S. Environmental Protection Agency.

b. Workers unloading the sealed drums and machinery operators will wear respirators when handling material at the disposal site.

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c. The bags may be dumped from the drums into the burial site. The drums may be reused. However, if a bag is broken or damaged, the entire drum should be buried.

10. If, at any time, the purchaser's representative decides that work practice are violating pertinent regulations or endangering workers, he will immediately notify in writing the on-site contractor representative that operations will cease until corrective action is taken.

Figure F-1 shows the general sequence which should be followed in an asbestos removal operation.

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Figure F-1. Sequence of steps in an asbestos removal operation.

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