

INTEROFFICE MEMORANDUM

TO: *See Below

DATE: December 01, 1986

FROM: J. C. Pullen

REF: JCP-86-217

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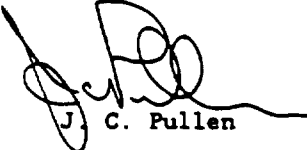
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PLAINTIFF'S EXHIBIT

CEL-1189

SUBJECT: Asbestos Removal

Attached for your information is a good summary of EPA requirements pertaining to asbestos removal and disposal.


J. C. Pullen

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HNA SH STEW 1365

The amendments (PL 99-519) will require school systems to identify and abate asbestos hazards in their buildings (Current Developments, Oct. 24, p. 963).

Both the school systems and companies hired to remove the asbestos will have to follow extensive standards laid out by the Environmental Protection Agency.

Below is a description of environmental standards for asbestos removal and disposal, and a discussion of standards for makers of asbestos products and of pending asbestos standards under the Safe Drinking Water Act.

Air Emissions Standards for Asbestos

Emission standards for asbestos issued by the EPA under Section 112 of the Clean Air Act present a number of challenges for federal and state environmental authorities seeking to enforce procedures for buildings being demolished or renovated.

Older buildings being renovated or demolished frequently contain asbestos materials. The number of demolitions or renovations taking place and enforcement resources available impose choices upon environmental authorities seeking to implement an effective enforcement strategy.

According to an EPA survey released Oct. 12, 1984, more than 700,000 commercial, residential apartment, and federal buildings contain asbestos material that can be released into the air by pressing on it with the hand (Current Developments, Oct. 26, 1984, p. 1067).

The Section 112 standards establish a goal of no visible asbestos emissions from any process or activity involving the substance. The standards apply to manufacturers of a variety of materials containing asbestos. In addition to the procedures for removing asbestos materials from buildings, the standards cover asbestos mills, asbestos insulating materials, and asbestos disposal.

Standards Promulgated

EPA listed asbestos as a hazardous air pollutant March 31, 1971 and in 1973 originally promulgated standards governing asbestos under Section 112. However, a 1978 Supreme Court case limited EPA enforcement options of the building demolition requirements.

The Court dismissed an indictment issued against a building demolition firm for violating the requirements, declaring they were not "emissions" standards under Section 112, but "work practice" standards not subject to EPA enforcement under the Act (Adamo Wrecking Co. v. U.S., 11 ERC 1081; April 20, 1984, p. 2251).

Section 112(e) of the Air Act was added in 1977, authorizing EPA to issue standards relating to design, equipment, operations, and work practice. In an effort to respond to the Supreme Court ruling, which dealt with standards issued before the 1977 amendment, some work practice standards were re-promulgated and others were not.

The Court ruling and subsequent re-issuance of some of the requirements resulted in each standard having a different enforcement status, according to agency enforcement documents. The perception of different enforcement status for different asbestos standards "led to confusion and greatly hindered litigation efforts," according to the documents.

To establish a new set of standards, EPA undertook a revision of the asbestos requirements. In July 1983, new standards were proposed (July 15, 1983; p. 417). The current standards were issued in final form April 1984 (40 CFR 61, Subpart M, Section 61.140 to 61.156).

General Policy

RECENT TSCA AMENDMENTS HEIGHTEN IMPORTANCE OF ENVIRONMENTAL STANDARDS COVERING ASBESTOS

Amendments to the Toxic Substances Control Act signed into law by President Reagan in October will raise the prominence of environmental standards governing removal and disposal of asbestos in buildings.

Building Removal or Demolition: Categories

Requirements for buildings under the standards govern the removal of asbestos-containing material from any institutional, commercial, or industrial structure, including apartment buildings with more than four dwelling units. Removal requirements depend upon the amount of asbestos involved, but apply to removal activity in buildings being demolished or buildings in use.

The requirements apply to the "owner or operator" of a building or contracting service engaged to remove asbestos. Any asbestos removal is a "renovation" under the standard and must meet the requirements.

Removal of asbestos materials from buildings is not mandated by the standards. The standards regulated the conduct for a building owner or operator deciding to remove asbestos or to demolish a building containing the substance. State or federal statutes requiring asbestos removal from schools or other buildings are separate from Section 112 standards.

Removal requirements list two categories of buildings. The first category is buildings in which the asbestos-containing material is at least 260 linear feet on pipes or at least 160 square feet on another building area affected by demolition or renovation. The second category comprises buildings in which the asbestos-containing material covers less area.

Notice Requirements: First Building Category

Requirements for the first category include written notification to EPA at least 10 days before work begins "of intention to demolish or renovate." The notice must include the name and address of the owner or operator, a description of the building, and a description of the amount of asbestos involved in the demolition or renovation.

The notice must also contain the starting and ending dates of the work, the methods to be used to comply with the removal standards, and the name and location of the disposal site where the asbestos will be sent.

Notice Requirements: Second Building Category

For the second category, the notice requirement is 20 days before removal or demolition work begins. The notice must include the name and address of the owner and operator, a description of the building including the amount of asbestos involved, and the starting and ending dates of the work.

However, renovation or demolition work performed on the second category of buildings need not follow removal and disposal requirements. The notice need not describe removal procedures or list the disposal site.

If a building is being demolished by order of a state agency because the it is structurally unsound and in danger of immediate collapse, a complete notice is to be sent to EPA "as early as possible."

Asbestos Removal or Demolition: Removal Procedures

Asbestos removal procedures apply only to the first category of buildings, those containing at least 260 feet of asbestos materials on pipes or 160 square feet on other building areas.

The requirements are designed to ensure that asbestos-containing materials are kept in sections and do not produce airborne emissions. Removal of asbestos materials is required before engaging in any work that would break up those materials. However, removal prior to demolition work is not required if the asbestos materials are "encased in concrete or other similar material" and can be wetted when exposed by demolition activities.

When asbestos material is being removed, the standards require that the material be kept wet. Building sections containing asbestos that are lowered to the ground in the course of demolition or removal work cannot be dropped or thrown.

Wetting asbestos materials in buildings during renovation operations can be avoided if EPA determines, based on information supplied by the building owner or operator, that wetting procedures would damage equipment. If the material is not to be kept wet, removal methods must involve an exhaust collection system described by the standards to prevent emissions.

Once asbestos materials are removed they must remain wet until disposal. The materials are to be transported in dust-tight chutes and adequately packed. All asbestos must be disposed in active waste disposal sites complying with Section 112 requirements as to disposal methods, site security, and public warnings of asbestos dangers.

The standards prohibit visible emissions in the preparation and transport of asbestos waste being disposed. The regulations suggest that asbestos-containing waste continue to be wetted or mixed with water, sealed in leak-tight, properly labeled containers, and transported to an approved disposal site.

Other Section 112 Asbestos Standards

Manufacturing standards for asbestos under Section 112 apply to a variety of materials that contain asbestos, including felt, paper, millboard, cement products, floor tile, paints, caulks, plastics, rubber, and chlorine. The standards require that manufacturers discharge no visible asbestos emissions and use an air cleaning process to clean emissions from manufacturing operations.

The standards ban installation of insulating materials containing asbestos, except for spray applied materials. Spray application of any asbestos-containing substance must use materials containing one percent or less of asbestos or must be done according to procedures outlined in the standards.

The standards prohibit visible emissions upon owners or operators of asbestos mills, and ban surfacing roadways with asbestos mill tailings or asbestos-containing waste materials.

EPA Enforcement Authority

As a Section 112 Air Act standard, enforcement of asbestos requirements is delegated to states as part of an approved state implementation plan (SIP) under the Act. EPA officials estimate approved SIPs are in place in 40 states.

Federal enforcement of Section 112 standards is authorized by the Sections 113 and 303 of the Air Act.

Section 113 permits EPA to issue violation notices, to obtain a permanent or temporary injunction against violators, to sue for civil penalties, or to prosecute for criminal penalties. The Act provides civil penalties of \$25,000 per day for each violation. Criminal penalties for a "knowing" violation of Section 112 standards are \$25,000 per day or one year in prison.

Section 303 allows EPA to seek a restraining order halting the emission of any pollutant source that is "presenting an imminent and substantial endangerment" to public health and that has not been subject to state or local abatement actions. Failure to comply with a Section 303 restraining order can result in a fine of \$5,000 per day of violation.

EPA Enforcement Guidance and Policy

To guide enforcement of the asbestos standards enforcement, EPA issued an enforcement strategy document for its

regional offices in April 1984. The document concentrates on the renovation and demolition requirements.

The document stated that "the number of demolition and renovation sources is greater than that of all other asbestos source categories combined, and the compliance status much worse." EPA enforcement officials have stated that enforcement efforts of Section 112 removal standards will increase (Sept. 7, 1984, p. 719; March 1, 1985, p. 1802).

The guidance document emphasized regular inspections of demolition or removal sites once Section 112 notification is received and a high compliance rate for demolition or removal activities.

Due to the "transient nature" of demolitions and renovations, the document suggested the most appropriate enforcement options will be administrative orders under Sections 113 or 303 or a civil action under either section for "immediate relief." The document said, "Whether EPA proceeds administratively may depend on whether the agency has confidence that the source will comply" with an administrative order.

The document said that a violation notice may be sufficient to encourage compliance.

Penalties sought in civil actions for "substantive violations" should be based on an estimate of "the economic benefit derived by the source in failing to comply with the regulations." One way to make this calculation, the document suggested, is to compare the dollar amount of the demolition or renovation contract with an estimate of the cost to do the job in compliance with the regulations.

Defendants in enforcement actions can include the building owner and the contractor. The document noted that the most appropriate party in most instances is the contractor actually doing the work, but suggested that as a general rule suits also should name the site owner.

"If it is known that the site owner has other sites which may be demolished or renovated," the document said, "it is as important to deter future violations by the owner as it is by the contractor."

Enforcement Activity and Litigation

As indicated by the EPA guidance document, enforcement activity or litigation around asbestos, either between private parties or in a government action, has concentrated on owners of buildings or contractors in asbestos removal or demolition activities.

There has been at least one indictment of a building contractor and building owner in a case in which the proper notice of removal activity was not provided and removal activities did not cease after a notice of violation. The case involved renovation activities in a school in Pennsylvania (Nov. 11, p. 1155).

A Connecticut federal court in June 1986 granted a Section 303 restraining order requested by EPA against a demolition contractor to halt demolition activities. EPA said it had determined that the activities were posing an immediate threat to public health (*U.S. v. Big Apple Wrecking Corp.*, DConn, No. 86-218). After the injunction was granted, an inspection of the demolition operation by EPA indicated that no further action would be necessary (July 18, p. 439).

A federal district court ruled that a building owner can be liable for asbestos emissions standards violations occurring while a subcontractor was demolishing the building (*U.S. v. Geppert Bros.*, DEPa, 24 ERC 1609; July 18, 1986, p. 431).

Civil suits against owners and operators have also been filed by EPA when asbestos removal standards allegedly have been violated. Three New England corporations were sued in August 1986 for failing to dampen asbestos being

removed from Connecticut rug factory (*U.S. v. Dallas-Engield Mills Property, Inc.*, DConn, No. H86-879PCD, Aug. 29, p. 637.)

Private Actions

Private suits unrelated to Section 112 standards include a class action suit seeking reimbursement from asbestos manufacturing companies for the costs of asbestos abatement in schools (*In re Asbestos School Litigation*, DEPa, No. 83-0268, Oct. 19, 1984, p. 1018), and a suit by a college for removal costs of asbestos installed by an asbestos firm (*Corporation of Mercer University v. National Gypsum Co.*, 24 ERC 1953; Oct. 3, p. 819).

A suit was filed Feb. 4, 1985 seeking damages estimated at \$1 billion from 42 producers and marketers of asbestos to pay for removal of the substance from homes in California (*Mullen v. Armstrong, ContraCosta Cty Superior Ct*, No. 268517; March 1, 1985, p. 1814).

Suits also have been filed against the asbestos manufacturers, related to the health hazards and disposal of asbestos (*In re: Johns Manville*, 24 ERC 1881).

RCRA Regulation of Asbestos Disposal

Asbestos destined for disposal is regulated as a "non-hazardous" solid waste under Subtitle D of the Resource Conservation and Recovery Act, according to an official in the Waste Management Division of EPA's Office of Solid Waste.

Certain asbestos wastes had been listed as hazardous under RCRA Subtitle C in May 1980 but were "temporarily" removed from the statute's hazardous waste lists later that year because EPA believed their disposal was adequately regulated under the Air Act, the official said.

The Solid Waste Office official told BNA Nov. 17 that the agency periodically considers "relisting" asbestos as hazardous under RCRA, but that there currently are no plans to resume regulating wastes containing the substance as hazardous.

Federal RCRA Subtitle D regulations, which govern solid waste disposal facilities such as municipal landfills, impose general facility siting requirements and operating procedures designed to protect human health and the environment but do not refer to asbestos specifically.

RCRA gives states responsibility for developing specific solid waste regulations based on the general federal requirements, the official explained. He said most states place more stringent requirements on disposal of asbestos-containing wastes and many have designated the wastes as hazardous.

New TSCA Amendment Requirements

Under the new TSCA amendments, EPA must develop comprehensive disposal regulations for asbestos wastes within one year or asbestos disposal guidelines developed by the Office of Solid Waste will become law, according to the official.

He commented that EPA's Air Office is revising its National Emission Standard for Hazardous Air Pollutants (NESHAP) for asbestos, which, if completed in time, would satisfy the TSCA disposal rule requirements. However, the one-year deadline puts EPA on a "tight schedule," the official said.

The Solid Waste Office asbestos disposal guidelines contain recommendations for complying both with RCRA and Air Act requirements and on how to determine what state or local rules may be applicable, according to the EPA official.

For example, general RCRA regulations require that access to Subtitle D disposal facilities be controlled to prevent

exposure of the public to potential health and safety hazards in general at the disposal site.

Therefore, the EPA guidelines advise operators of disposal facilities that accept asbestos to install warning signs and fencing topped with barbed wire, unless adequate natural barriers exist, to help avoid liability for any potential health or environmental problems resulting from asbestos exposure.

The agency recommends that warning signs referring specifically to potential asbestos health hazards be displayed at all entrances and at intervals of no more than 330 feet along the property line of the landfill or perimeter of the sections where asbestos waste is deposited.

Familiarity With State Regulations

The guidelines suggest that potential disposers become familiar with any additional, more stringent requirements on the handling of asbestos-containing wastes imposed by state and local solid waste regulatory agencies. Many states issue lists of facilities that are in compliance with their more stringent rules and have been "approved" or licensed to accept asbestos wastes.

To further reduce liability, some disposal facility operators impose special requirements on asbestos waste, such as placing all bagged waste into 55-gallon metal drums. EPA therefore recommends that asbestos waste disposers contact the intended disposal facility before arriving with the waste and that disposal facility operators require notification before receiving asbestos wastes.

Facilities in compliance with RCRA Subtitle D requirements also must adhere to the Air Act NESHAP for asbestos before they can accept wastes containing the substance. The Air Act standards are designed to prevent release of asbestos fibers into the air at harmful levels during and after disposal.

Disposal facility operators also are advised to notify EPA whenever asbestos waste is received "in a condition that may cause significant fiber release during disposal."

Wastes that are not properly containerized, as required under the Air Act, should be thoroughly soaked with a water spray prior to unloading and immediately covered with a non-asbestos material prior to compacting the waste in the landfill, according to the agency guidelines.

Minimizing Potential Air Emission Dangers

To minimize potential dangers from exposure to air emissions of asbestos, the Solid Waste Office guidelines advise disposal facility operators to designate a separate area, most ideally an isolated, narrow trench, for asbestos waste disposal.

The trench should be ramped to allow entrance of disposal vehicles and should be aligned perpendicular to prevailing winds, according to the guidelines. Asbestos waste containers should be placed into the trenches carefully to avoid breaking them, especially when plastic bags are used.

The containerized asbestos waste should be covered within 24 hours of disposal with at least six inches of non-asbestos material, the guidelines advise. Moreover, asbestos wastes should be compacted only after being covered, according to the EPA guidelines.

For final closure of an area containing asbestos waste, the guidelines advise an additional 30 inches of cover with a non-asbestos material. The final cover should be graded and vegetated to control erosion and more cover material should be used in areas where excessive soil erosion may occur or where the frost line exceeds three feet, according to the guidelines.

Finally, EPA advises that disposal facility operators document the specific location and quantity of the buried asbestos wastes for protection from liability. This information should be recorded in the land deed or other record along with a notice warning against excavation of the area the agency suggested.

Regulation of Asbestos in Drinking Water

Asbestos concentrations in drinking water would be regulated under the Safe Drinking Water Act if a standard proposed in 1985 issued by the EPA in final form.

The Nov. 13, 1985, proposed rule would set a maximum contaminant level goal of 7.1 million fibers per liter (Nov. 15, p. 1252).

If EPA promulgates a final MCL goal, it would not be an enforceable standard, but instead would serve as a guideline to state regulators, who have the authority to impose tighter standards than EPA if they choose. A final, enforceable maximum contaminant level is expected to be issued by EPA by June 1988 or sooner.

The standard would apply only to fibers longer than 10 micrometers (μm), which are suspected of causing tumors in the gastrointestinal system. EPA said in its proposal. While scientific evidence shows a strong correlation between asbestos inhalation and lung cancer, far less data are available on the effects of ingested asbestos, EPA noted.

Most animal studies have shown no correlation between asbestos ingestion and cancer, except for one study performed by the National Toxicology Program. The NTP research, EPA said, showed an increase in gastrointestinal tumors in male rats "that may be indicative of carcinogenic effects."

A 1980 EPA study of 406 cities indicated that 40 city water supply systems had levels of asbestos fibers longer than 10 μm in concentrations greater than 10 million fibers per liter.

The agency is seeking comments on several issues, including whether there is enough evidence to justify regulating ingested asbestos as a carcinogen. Other areas of concern are availability of analytical methods to detect asbestos in water and whether the 10 μm threshold is appropriate, EPA said.

Existing National Primary Drinking Water Regulations currently require community water supply authorities to report the presence of asbestos concrete pipe in their distribution systems (§141.42(d)), as part of their responsibilities under the "Special Monitoring for Corrosivity Characteristics" provision of the law. States are authorized to require reporting on the presence of vinyl lined asbestos cement pipe as well, if they choose.

Impact Statements

MMS FINAL ON TWO OIL, GAS LEASE SALES IN GULF OF MEXICO AVAILABLE FOR REVIEW

A final environmental impact statement on two proposed oil and gas Lease Sales in the Central and Western Gulf of Mexico is available for public review, the Environmental Protection Agency said Nov. 7.

The statement (EPA ID No. 860448), which was prepared by the Interior Department's Minerals Management Service, covers Lease Sale Nos. 110 and 112 to take place on the outer continental shelf in 1987. The leasing activities affect Alabama, Louisiana, Mississippi, and Texas.