PLAINTIFF'S EXHIBIT

UC-1942

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

NEW JERSEY ADMINISTRATIVE CODE

TITLE 7, CHAPTER 27

SUBCHAPTER 17

CONTROL AND PROHIBITION OF SPRAY-ON ASBESTOS SURFACE COATINGS

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DAVID J. BARDIN, COMMISSIONER
P. O. BOX 1390
TRENTON, N. J. 08625
609-292-2885

7:27-17.1 Definitions

"Department" means the Department of Environmental Protection.

7:27-17.2 General Requirements

No person shall cause, suffer, allow or permit surface coating by spraying on asbestos or asbestos containing materials.

7:27-17.3 Tests

Any person responsible for the manufacture, application or use of any coating shall, when requested by the Department, conduct such tests as are necessary in the opinion of the Department to determine the presence of, the amount and/or kinds of asbestos in the coating. Such tests shall be conducted in a manner approved by the Department and shall be made at the expense of the person responsible.

New Jersey Department of
Environmental Protection
Bureau of Air Pollution Control
P. O. Box 2807
Trenton, New Jersey 08625

Union Carbide trial exhibit UC-1942: New Jersey DEP Regulation Prohibiting Spray-On Asbestos Surface Coatings... Published by AsbestosClaims.Law
ACL Doc 16998 · Page 1 of 3 asbestosclaims.law/library/16998/1

Asbestos Containing Surface Coating Material

Basis for Proposed Regulation

I. Background

Asbestos is the generic name given to a class of natural fibrous silicate minerals used extensively in industry and construction.

Asbestos containing surface coating material is used in buildings for insulation (thermal and accoustic), decorating and fireproofing purposes. In many cases, this type of surface coating is sprayed on to walls and ceilings. As a result of such spraying appreciable amounts of asbestos fibers may be released into the air during the application, again as the surface coating material deteriorates with age, and, finally, when the building is demolished. Appropriate substitutes (in terms of physical properties and price) exist which do not contain asbestos. The purpose of proposed regulation is to reduce the exposure of the public to new asbestos sources of this type.

Asbestos containing materials can be found virtually everywhere - including homes, farms, factories, automobiles, ships, trains and airplanes. It has been estimated to have over 3000 uses, many of which cannot be satisfied by a substitute.

Asbestos fibers in their several commercial forms have been shown to be associated with a variety of diseases. These include: asbestosis (a carring of the lung), bronchogenic carcinoma (a malignancy of the interior of the lung), mesothelioma (a malignancy of the chest cavity or of the lining of the abdomen), and cancer of the stomach, colon and rectum (40,Fed. Reg. 47651, October 9, 1975).

Only the free asbestos fibers constitute a danger to health. It has been estimated that a majority (85%-92%) of end-product uses have effectively immobilized the asbestos fibers by mixing them into a strong binding material, e.g., cement(EPA, 1976: Asbestos a Review of Selected Literature through 1973, EPA-560/2-76-001).

The asbestos fibers resulting from the spraying operation itself, as well as those released from the coating over a period of time due to its friable nature, are of primary public health concern.

II. Health Effects of Asbestos:

In 1938, the U. S. Public Health Servi-e first suggested an occupational standard for exposure to asbestos fibers in the air. The standard proposed was 5 million particles per cubic foot (or 30 fibers/milliliter), a standard intended to prevent asbestosis. In 1938, asbestosis was the only disease of concern, since no data then linked asbestos exposure with cancer.

In time, the scope of medical concern as to the diseases resulting from asbestos exposure expanded. In 1947, lung cancer was found in 13% of the individuals who died with asbestosis in Great Britain (Merewether, 1947: Annual Report of the Chief Inspector of Factories); and lung cancer was fully documented as causally related to asbestos exposure in 1955 (Doll,1955: Br. J. Ind. Med. 12:81). Mesothalioma, a rare tumor of the lining of the abdomen or chest, was found in an asbestos worker and described in 1954 (Weiss, 1954: Medizinische 3:83) and unequivocally associated with asbestos exposure in 1960 (Wagner, et al, 1960: Br. J. Ind. Med. 17:260). Gastrointestinal cancer was also found to be in excess among asbestos-insulation workers in the United States (Selikoff, et al, 1964: J. Am. Med. Assoc. 188:22).

Union Carbide trial exhibit UC-1942: New Jersey DEP Regulation Prohibiting Spray-On Asbestos Surface Coatings... Published by AsbestosClaims.Law
ACL Doc 16998 · Page 2 of 3 asbestosclaims.law/library/16998/2

The Federal government, pursuant to the Walsh Healy Public Contracts Act adopted a standard of 12 fibers/milliliter (ml) in May, 1969. A fiber was defined as being greater than 5 microns in length. When the Occupations Safety and Health Act became effective, the Secretary of Labor proposed this level as an interim standard in May, 1971. In December, 1971, a temporary emergency standard of 5 fibers/ml was promulgated. The final standard adopt-d in June, 1972 was an eight hour time weighted average exposure of 5 fibers/ml with a peak value of 10 fibers/ml for a 15 period. In July, 1976 the eight hour standard was reduced from 5 to 2 fibers/ml.

In October, 1975 a further reduction in this standard was proposed by Occupational Safety and Health Administration (OSHA), from 2 to 0.5 fibers/ml. At that time, OSHA's position was that "prudent policy would therefore seem to indicate that every reasonable measure should be taken to eliminate human exposure to chemical compounds as soon as their carcinogenic nature is identified." (40, Fed. Reg. 47661, October 9, 1975)

Medical evidence indiates that brief (as short as one month or less) high level exposures, as well as long-term, low level exposure to asbestos leads to an increase in the risk of cancer (Selikoff, Nicholson and Langer, 1972: Arch. Environ. Health; 25:1). Another study (Gillam et al., 1975: Annals of New York Academy of Sciences) revealed a statistically significant excess of lung cancer among a group of gold miners exposed to relatively low levels of asbestos (0.36 f/ml), well below the present OSHA standard. It has also been demonstrated that people living in the same house with asbestos workers, who are exposed to the asbestos dust carried home by the workers, face an increased cancer risk.

For some type of environmentally related human cancer, it is now well established that interaction of multiple factors may significantly influence the degree of risk. Although it is widely assumed that intensity of exposure strongly influences cancer risk, there are comparatively few direct data apart from cigarrette smoking and radiation that support this belief or establish that a linear relationship exists. (Selikoff, 1975: Multiple Risk Factors in Environmental Cancer, in Persons at High Risk of Cancer) So, for example, it has been demonstrated that the risk of dying of lung cancer is 92 times greater for an asbestos worker who smokes, than for an individual who neither smokes nor works with asbestos. (Selikoff, 1968: J. Am. Med. Assoc. 204:106)

Because of the variability of individual response to carcinogenic materials and other factors, the concept of a "level of no effect" or "threshold level" may have little significance on the basis of existing knowledge. While some level, below which exposure to a carcinogen does not cause cancer may conceivably exist for any one individual, other individuals in the population may have cancer induced by doses so low as to be effectively zero (40, Fed. Reg. 47651, October 9, 1975). At the present time, a precise "no effect" level for asbestos has not been demonstrated, and might, as a matter of fact, not exist (Shabad, 1966: Hygiene and Sanitation 31:174-180). "At any specified level above zero, we may assume that there will be some risk associated with the exposure to asbestos and to other carcinogens." (Nicholson, 1976: Annals of the New York Academy of Sciences 271:152-169)

III. Conclusion

The regulation proposed herewith is intended to cover the situation in which asbestos fibers can become air borne and thereby jeopordize public health. Other regulations and laws may prove desirable to further reduce the dangers posed by asbestos in our environment and will be investigated. The Department invites comments on such additional asbestos control measures.

The present proposal will prevent the future application of sprayed-on asbestos material in New Jersey. It is the Department's position that exposure to asbestos fibers resulting from any more spray-on surface coatings would constitute a totally unnecessary risk.

BRG 0472