HILL AND KNOWLTON, INC.



June 15, 1971

MEMORANDUM TO: Mr. W. P. Raines
Johns-Manville Corporation

SUBJECT: Illinois Pollution Control Board -- Asbestos Regulations

Here are the asbestos regulations proposed by the Illinois Pollution Control Board.

Attached also you will find a brief sheet explaining the need for the proposed regulations.

Neil Regan discussed the Illinois situation this morning with Tomothy Harker of the Illinois Pollution Control Board. Harker said that no hearings are scheduled as yet but probably would be within the next two months. He told Regan he thought it would be unethical for AIA/NA to talk to members of the Board before the hearings.

For the record, the Illinois Pollution Control Board Chicago address and phone are as follows: 189 W. Madison Street, Chicago, Illinois 60603 (312-793-3620).

James D. Callaghan

JDC:sdd
Enclosure

cc: Matt Swetonic

01-0218307

R 71-16
Asbestos and Spray Insulation

EXPLANATION OF PROPOSED REGULATIONS

Science is pointing its medical finger at asbestos and describing the "miracle fiber" as a mineral whose commercial blessings can exact a rather costly toll. Asbestos insulation and factory workers exposed to heavy concentrations of asbestos fiber over prolonged periods have suffered devastating consequences. They are visited with an alarmingly high incidence of asbestosis, which produces a diffuse fibrosis of the lower lung, of lung cancer and of an extremely rare cancer of the lining of the lung and abdomen, mesothelioma. The rates of lung cancer are extraordinarly high especially among asbestos workers who are smokers, indicating the synergistic potential of the mineral fiber.

The medical evidence is indefinite as to why asbestos is carcinogenic, with three theories in vogue: (1) The fibers once ingested or inhaled act as a continous physical irritant, inducing a tumor after 20 to 30 years; (2) The fibers contain carcinogens such as benzo(a)pyrene; (3) Fibers accumulate in the lung and remain immobilized as "asbestos bodies" which cause cancer upon disintegration.

Similarly, while the adverse effect of prolonged exposure to heavy concentrations of asbestos is clearly documented, the medical data is disturbingly vague as to the results of long-term exposure to low and moderate concentrations. Nor is there a clear dose-time relationship for exposure to heavy concentrations. In short, as with many other environmental contaminants, the public has discovered too late that asbestos is potentially dangerous and too little of the extent of that threat.

But two depressing facts are agreed upon: That millions of Americans are likely to contain "asbestos bodies" in their lungs and that asbestos fiber once released is relatively indestructible. That is, the qualities of durability and of resistance to normal chemical and physical stress, which make asbestos such a commercial success, render it potentially dangerous to present and future generations because of the tendency of the fibers to accumulate in the atmosphere and in the lungs.

In light of these facts, the PCB has proposed the nation's most comprehensive set of asbestos controls. To ban all uses of asbestos would be "alarmism" at its most clamorous. But ignoring

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 2 of 10 asbestosclaims.law/library/20981/2

the need to explore and, perhaps, to adopt controls for the significant contributors to a swelling volume of asbestos fiber in our air would constitute a foolish complacency.

To this end, the suggested regulations would identify these "significant contributors" as the commercial use of asbestos in construction work; the demolition of asbestos-containing structures; the manufacturing and processing of asbestos-containing products; the transportation of certain asbestos-containing products; the disposal of asbestos-containing waste; and the use of asbestos in the brakes of millions of vehicles.

Part II would impose several general requirements upon all commercial construction, repair, alteration, demolition, manufacturing or processing activity from which asbestos fiber is discharged into the environment. The persons responsible for such activity must obtain a permit from the EPA. The permit system will serve to produce the advanced assurrance of compliance with the applicable control regulations and will thus reduce the cost and burden of in-the-field enforcement.

In addition these commercial activities would have to provide facilities to prevent the removal of asbestos fibers from the site of such activity on the clothing of employees. Indeed, this poses a rather new concept of air pollution control. Those who have died from lung ailments induced by long, close association to an asbestos worker may be powerful proof of the need for novelty.

Finally, Part II would provide for careful waste disposal procedures, as wind-blown refuse heaps and scrap piles contribute to the volume of asbestos fiber in our air. The simple steps for control eliminate any excuse for such dangerously sloppy housework.

Part III would prohibit the spraying of asbestos-containing insulation and fireproofing. Experience has indicated that procedural safeguards are inadequate and their enforcement is an overtaxing burden. Chicago has banned spray asbestos, and New York city and Philadelphia are considering doing so.

Procedural safeguards designed to reduce fiber emissions would be required to spray non-asbestos insulation. The biological effects of these fibers is unknown. Prudence would seem to dictate reasonable efforts to soften the potential future blow from spray fiber aspiring to asbestos' status.

Part IV suggests that various asbestos-related activities at construction sites be done within an enclosure. It would also require that asbestos construction products be so installed as to preclude the emission of fiber into the circulating air.

01-0218309

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh… Published by AsbestosClaims.Law
ACL Doc 20981 · Page 3 of 10 asbestosclaims.law/library/20981/3

Part V expresses, ironically, what may be a key reason for banning spray asbestos. It would require that procedural safeguards be pursued in order to demolish a structure whose destruction would otherwise expose members of the public to asbestos fiber. Clouds of dust are often raised by demolition work. The facts that great numbers of persons may be exposed to this dust in urban areas and that the post-war generation of high-rises were the first buildings to use asbestos insulation extensively speak in favor of some such regulation.

Part VI suggests an emission standard for manufacturers of asbestos products. The standard is believed to be within the capture efficiency of baghouse filtration. The proposed boundary standard is thought to be a method for preventing dilution of exhaust gases.

The standard would measure only fibers longer than five microns. The justification for this seems to be the administrative convenience of avoiding difficulties in measuring fibers from .5 to five microns in length. Medical evidence has indicated that the very small fibers may be the most dangerous. And the Board will seek extensive evidence on this point.

Part VII would prohibit the use of brake lining in vehicles manufactured after January 1, 1975 and sold for use in Illinois.

If brake lining decomposition emits asbestos fiber, then the tremendous number of vehicles using asbestos, and the impracticality of controlling these numerous small emission sources would appear to speak to the need for a product ban. The prohibition is carefully worded to avoid the necessity of fitting vehicles produced prior to 1975 with non-asbestos brakes. It is contemplated that the ban will necessitate design changes, probably to disc brakes, and it is thought that requiring the invidual vehicle owner to undergo this expense is unreasonable. The time lag of over three years is thought to be sufficient for vehicle manufacturers to accomplish any necessary design changes.

01-0218310

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 4 of 10 asbestosclaims.law/library/20981/4

Proposed Regulation Only
June 9, 1971
CHAPTER V: TOXIC SUBSTANCES
ASBESTOS: SPRAY INSULATION

Table of Contents

Part I: Introduction

101. Authority
102. Policy
103. Definitions

Part II: General Requirements

201. Permit
202. Removal of Asbestos from clothing
203. Waste disposal

Part III Spray Fireproofing and Insulation

301. Spray asbestos prohibited
302. Non-asbestos spray insulation

Part IV Construction, Alteration and Repair of Structure

401. Enclosure
402. Preclude exposure to circulating air

Part V Demolition

501. Necessary and practicable safeguards
502. Cessation of demolition work.

Part VI Manufacturing

601. Emission standard; concentration at boundary
602. Process water
603. Waste sludge disposal

Part VII Asbestos-Containing Products

701. Transportation
702. Brake lining

01-0218311

PART I: INTRODUCTION

101. Authority

Pursuant to the authority in Sections 9, 10 and 13 of the Environmental Protection Act which empower the Board to adopt regulations forbidding the "sale, offer, or use for reasons of air pollution control" of any article, and to set "standards specifying the maximum amounts or concentrations of various contaminants that may be discharged into the atmosphere"; and to set standards for the issuance of permits for the operation of any equipment or facility capable of causing or contributing to air pollution; and to promulgate "conditions regarding the... use of any....article determined by the Board to constitute an air pollution hazard"; and to adopt effluent standards limiting the amounts of contaminants that may be discharged into the water of Illinois, the Board adopts the following rules and regulations:

102. Policy

It is the purpose of the General Assembly in adopting the Environmental Protection Act to maintain and enhance the purity of the air and water of Illinois in order to protect health, welfare and the quality of life. Accordingly, it is hereby determined that the uncontrolled discharge of asbestos fibers into the environment tends to severely endanger the public health and welfare and that the uncontrolled spraying of fiber-containing materials unreasonably interferes with the enjoyment of life and property.

It is the purpose of these regulations to control the amount of asbestos fiber released into the environment from the major sources of emission. Such control is necessary not only to protect those members of the public who are in proximity to heavy concentrations of asbestos fiber but also to safeguard the health of future generations endangered by the continuous discharge of asbestos fiber which can be toxic and which tends to be cumulative both in the atmosphere and in the human body.

Where health can be protected by the adoption of an emission standard or of procedural safeguards, such a course has been pursued. In those instances where restriction is unfeasible because of the tremendous number of small, uncontrollable emission sources (automotive)or because of the unusual nature of the emission source (spray asbestos at construction sites) a product ban has been resorted to. These prohibitions have been made with full consideration given to the available alternative materials.

It is also the purpose of these regulations to reduce the emission of non-asbestos particulate from spray-fireproofing and

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 6 of 10 asbestosclaims.law/library/20981/6

insulation. To protect against these emissions, the biological effects of which are unknown, procedural safeguards have been enacted.

103. Definitions

Agency	- The Illinois Environmental Protection Agency
Asbestos	- Any fiber or any mixture containing fiber of hydrated silicate mineral, which, on the basis of its crystalline structure, falls into one of two categories: (1) pyroxenes - chrysotile fiber; (2) amphiboles - crocidolite, amosite, tremolite, actinolyte or anthophylite fiber.
Board	- The Pollution Control Board of Illinois.
Commercial Activity	- Any activity done for hire or having financial profit as a primary aim.
Debris	- Asbestos-containing waste produced by the demolition of a structure.
Spraying	- The pneumatic application of material used for fireproofing or insulation.
Waste	- Any asbestos-containing matter which has been or is intended to be discarded.

PART II: General Requirements

No commercial activity, not otherwise hereinafter prohibited, involving the discharge of asbestos fiber into the environment from the construction, alteration, repair or demolition of a structure or from the processing or manufacturing of asbestos-containing products, shall be conducted unless the person or entity in charge of such activity complies with the following regulations:

201. A permit shall be obtained from the Agency to engage in such activity. Before obtaining such permit, the applicant shall demonstrate compliance with the following safeguards:

(a) The designation of personnel to exercise full-time supervisory authority over all aspects of the activity from which the release of asbestos fiber into the environment could result, in such a manner as to insure compliance

01-0218313

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 7 of 10 asbestosclaims.law/library/20981/7

with the pertinent asbestos control regulations.

(b) That each employee engaged in such activity has completed or will complete a satisfactory course of instruction on the potential hazards of exposure to asbestos fiber including the precautions that must be observed to prevent or restrict the dispersion of asbestos fiber into the environment.

(c) That such additional safeguards as are hereinafter specifically required and such precautions consistent with the purpose of these regulations as the Agency deems necessary under the circumstances shall be complied with.

202. Facilities shall be provided and procedures instituted and supervised that prevent the removal of asbestos-containing material from the site on the clothing of employees.

203. Asbestos-containing wastes shall be immediately vacuumed or otherwise collected where vacuming is impossible, and shall be placed in a container resistant to tearing or breaking under normal handling conditions, which shall be tightly sealed and clearly marked as containing asbestos waste. Such containers shall be placed directly upon a vehicle for disposal by burial at an approved site.

Section 203 shall not apply to the demolition of a structure, except as provided in Section 501(a), (d) and (e) or to the disposal of sludge waste except as provided in Section 603.

PART III: SPRAY FIREPROOFING AND INSULATION

301. The spraying of asbestos-containing material is prohibited.

302. Non-asbestos particulate matter used for insulation or fireproofing shall not be sprayed unless the following procedures are taken:

(a) Before the start of spraying operations, all floor areas shall be swept clean and cleared of all objects, material and equipment other than that employed in the application of the fiber-containing material, or, in the alternative, all such objects, material and equipment shall be covered with plastic or plastic-coated tarpaulins.

(b) The entire floor or area to be sprayed shall be enclosed with plastic or plastic-coated tarpaulins in a manner which shall preclude the escape of fiber-containing material from the enclosure. All interior open areas such as elevator shafts and stairwells shall be enclosed in a manner which shall prevent the escape of fiber-containing

01-0218314

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 8 of 10 asbestosclaims.law/library/20981/8

material from the working area. "Stack effect" of the shafts, stairwells and comparable spaces shall be considered in providing proper enclosures.

(c) Regardless of adherence to the stated control practices, any visible emission of fiber-containing materials beyond the building perimeter will be considered a violation.

(d) In case of visible emission of fibrous material from the construction site, immediate steps shall be taken to cause the cessation of such emissions by either effective control measures or work stoppage at the source of the emissions. There shall then be immediate and complete cleanup of all material that has escaped the construction site, and measures shall be taken that will insure that no further dispersal of any fibrous material into the atmosphere can occur.

(e) The entire sprayed area, all ledges and surfaces including tarpaulins within the enclosure shall be thoroughly vacuumed upon completion of the spraying operation and immediately before the enclosure is dismantled. The vacuum cleaner shall contain a strong, single-service, disposable inner bag of durable material which shall be removed from the vacuum cleaner and tightly sealed. The bag shall then be placed in a container and disposed of at an approved site in accordance with Section 203.

(f) All areas used for opening bags containing fibrous material or the changing of hoppers shall be enclosed so as to prevent the escape of such material from the immediate area in which such activity occurs.

(g) Any plenum or other structure coated with or containing fibrous insulation and used in the circulation of air in a building shall be thoroughly cleaned of all debris and waste insulation. All applied fiber-containing insulation within a plenum or duct shall be coated with a sealant which precludes exposure of the fiber-containing material to the circulating air.

PART IV: CONSTRUCTION, ALTERATION AND REPAIR OF STRUCTURE

401. (a) The cutting, trimming, fitting or stripping of asbestos-containing material in the construction, alteration or repair of a structure which is done at the site of such structure shall be conducted within a special enclosure designed to preclude the escape of asbestos fiber from the immediate area of such enclosure.

(b) The mechanical exhaustion of dust from such enclosure to the ambient air is prohibited unless such exhaust system is equipped with a fabric filter for dust collection.

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Joh... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 9 of 10 asbestosclaims.law/library/20981/9

402. Asbestos-containing material applied in the construction, alteration or repair of a structure shall be coated with a sealant, provided with a cover or installed in some other manner so as to preclude exposure of the asbestos fiber to the circulating air.

PART V: DEMOLITION

501. Where the risk of public exposure to asbestos fiber from the dislodging of asbestos-containing materials is present, no demolition of a structure shall be initiated unless all safeguards necessary and practicable to reduce the emission of dust are taken.

Such procedures shall include, but are not necessarily limited to:

(a) Boilers and pipes insulated with asbestos-containing material shall be wetted and stripped before toppling of walls is begun. This procedure shall be followed, where practicable, as to all other asbestos-lined surfaces. Such asbestos waste shall be immediately bagged and disposed of in accordance with Section 203.

(b) Demolition by toppling of walls is prohibited except within an enclosure approved by the Agency as part of the permit granted for demolition of that structure.

(c) Before the demolition of any section of the structure, adequate wetting to suppress the dust shall be employed.

(d) Asbestos-containing debris shall not be dropped or thrown from any floor but shall be transported by dust-tight chutes or buckets. Asbestos-containing debris in chutes or buckets shall be sufficiently wetted to preclude dust dispersion at the point of discharge.

(e) All asbestos-containing debris shall be thoroughly wetted before loading into trucks, other vehicles or containers. During transport such waste shallbe enclosed or covered so as to prevent dust dispersion. Asbestos-containing debris shall be disposed by burial at an approved site.

502. In the event asbestos-containing matter becomes air-borne beyond the property boundaries or in the event freezing temperatures preclude the use of water for dust suppression, demoliton work shall cease until adequate alternate measures can be taken.

PART VI: MANUFACTURING

601. (a) No factory, plant or enterprise which engages in the processing or manufacturing of any asbestos-containing product shall emit asbestos fiber into the ambient air in excess of .5 fiber per cubic centimeter of air. The ambient

Asbestos Information Association trial exhibit AIA-80: James D. Callaghan (Hill and Knowlton) to W. P. Raines, Jo... Published by AsbestosClaims.Law
ACL Doc 20981 · Page 10 of 10 asbestosclaims.law/library/20981/10