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RE: ASBESTOS IN THE WORKPLACE

I had been interested in obtaining educational information on the general subject of toxicity of asbestos in the workplace; what constitutes safe working levels; what is meant by the often used terms "friable," "encapsulated," "locked-in," etc.; and what exactly are the regulations regarding these materials.

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ask for
2116*

You suggested I contact an asbestos manufacturer to obtain such information. I subsequently spoke with a J. P. Leineweber, Ph.D., Staff Vice President and Technical Director, Health, Safety and Environment Department, Manville Corporation, Denver, Colorado. Dr. Leineweber was very helpful, both verbally and in writing, and herewith I'm routing to you the pack of literature he sent on the subject. I'd appreciate it if you would return this to me once you've had a chance to look it over. Of particular interest might be the pamphlet "Recommended Work Practices for Field Fabrication of Asbestos-Cement Sheet." Someone may want to forward a copy of this to our people at Sao Luis, Brazil.

The overriding tone of the material Dr. Leineweber sent me is that asbestos is toxic only in large doses over periods of time. Further, asbestos is safe when used properly.

It's worth noting that Johns-Manville apparently would concur with our proposed use of asbestos/cement roofing and siding in Brazil. The "asbestos" in this application is "locked in" except during fabrication when proper precautions must be taken.

From the standpoint of government regulations, B. L. Clark has summarized the EPA's emission standards for asbestos in his letter to you of 1982 July 23. I feel there are some items that should be pointed out regarding this standard.

- 1) The repeated references to "pipe, duct, boiler, tank, reactor turbine, furnace, or structural member..." indicate to me the author's were primarily concerned with high, free asbestos content insulations which were widely used until recent years.
- 2) Materials being disposed of must contain more than 1 percent by weight of asbestos and must be able "...to be crumbled,

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pulverized, or reduced to powder when dry by hand pressure..." before they need be disposed of in accordance with this standard.

- 3) The words "visible emissions" in the standard are deceptive. By definition, emissions are only prohibited if they are both visible and they contain particulate of a material which, in turn, contains friable asbestos.

I get the feeling from all this the standard was not intended to apply to very small quantities of asbestos, such as in paint films or to asbestos materials in which the fibers are not readily airborne.

In his letter to you of 1982 July 16, W. B. Garyotis referred to an incident at Point Comfort a year ago involving asphalt impregnated asbestos felt pipe covering manufactured by Johns-Manville. I was at Point Comfort at the time; and, while not directly involved, recall the incident.

Alcoa Standard 33.7.9 specifies the felt and clearly notes the asbestos content. Two fiberglass materials are also listed (one by Johns-Manville) in case asbestos is considered unacceptable.

Since Alcoa had not prohibited asbestos, the Contractor chose his customary product. The Contractor, Johns-Manville (who sold either product), and Erv Bakke all recommended against replacing the asbestos containing material on the basis that it was a superior material, it would give better, long-term weatherproofing protection, and the asbestos was encapsulated and therefore safe. In the end, the material was replaced, luckily, at no additional cost to Alcoa.

As I recall, the final decision to replace the material was based on advice that when eventually "demolished," it would be necessary to bag, label, and specially dispose of the asbestos containing felts. As I read the EPA Standard now, I question that advice. Indeed, if the asbestos felts were, in fact, a better waterproofing material, I wonder whether Alcoa made the best decision.

I am aware of a few asbestos containing materials approved for use in the Alcoa Standards. Attachment No. 1 lists these

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Materials and their applications. I would like your advice on how I should proceed in this matter.

T. I. ALKIRE

TIA:ef

Attachment

cc: J. E. Powell - Pittsburgh Office, 21 AB
W. B. Garyotis - Pittsburgh Office, 2 AB
T. M. Brown - Pittsburgh Office, 2 AB
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ATTACHMENT NO. 1
KNOWN ASBESTOS CONTAINING MATERIALS
APPROVED IN ALCOA CONSTRUCTION STANDARDS

<u>MATERIAL DESCRIPTION</u>	<u>BRAND NAME</u>	<u>MANUFACTURER</u>	<u>PERCENT ASBESTOS</u>	<u>CONDITION OF ASBESTOS</u>	<u>DESCRIPTION OF APPLICATION</u>
<u>Standard 33.1.4</u>					
Asphaltic Mastic Alcoa KK Coro-Kote		Colonial Refining and Chemical Co.	11	Encapsulated in Bitumen	Used for painting of structural steel, primarily interior chlorine atmospheres (casting buildings). Paint film 60 mils thick.
Electrical Fire Retardant Paint, Alcoa EFRP	Flame-mastic 71A	Flamemaster Corp.	NA	Encapsulated in Resin	Applied to electrical cables for fire prevention, internal or external, thickness 125 mil.
Exterior Masonry Paint	Re-New Coat	Devroe, Raynolds	7.5	Nonfriable	Exterior moisture sealer on masonry block buildings. Paint film 10 mils thick.
<u>Standard 33.7.5</u>					
Asphalt Coated Pipe Insulation Jacket	Double Coated Flex-tone	Johns-Manville	NA	Encapsulated in Bitumen	Wrap on calcium silicate pipe insulation for exterior pipe weatherproofing.
<u>Standard 33.7.4</u>					
Asbestos Roof Flashing Felts	Reinforced base flashing and 15-lb. finishing felt.	Johns-Manville	NA	Encapsulated in Bitumen	Applied at perimeters of built-up roofs at non-horizontal surfaces where felts cannot be immersed in coal tar.
Asphalt Roof Cement	"Asbestile"	Johns-Manville	NA	Encapsulated in Bitumen	Used to caulk exposed joints at perimeter of built-up roofs.

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