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INTERNAL CORRESPONDENCE May 4, 1964

FROM THOMAS B. BONNEY
PITTSBURGH OFFICE

TO INDUSTRIAL HYGIENE
COMMITTEE CHAIRMEN

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RE: INDUSTRIAL HYGIENE NEWSLETTER
SAWING MARINITE

In recent months several incidents have occurred that prompted us to take a closer look at the potential problems associated with the sawing of Marinite. In the past, because of erroneous information given us about the composition of this material, we may have advised you poorly about the proper handling of it. In order to correct this, especially in view of the widespread use of Marinite, we felt that this Newsletter would be timely and appropriate.

Marinite is an insulating refractory board manufactured by Johns-Mansville. It consists of a mixture of asbestos fibers and diatomaceous earth bonded with an epoxy resin. In Alcoa it is widely used for headers in DC Casting Units and for trough linings. In order to be used for these applications, it is necessary that the Marinite first be sawed into appropriate sizes and shapes. Sawing generates a considerable amount of dust which is the main, if not the sole, cause of difficulty in handling this material. Were it not for the presence of the epoxy binder, proper control would consist simply of keeping the sawyers' time-weighted exposures below 5 mppcf, the threshold limit value for asbestos. However, the epoxy binder complicates the picture.

Although the surface of a cured epoxy resin system is almost completely inert, this is not true of the interior structure which contains an appreciable amount of unreacted resin and hardener. As a result, dusts from machining and sawing epoxy resin systems are likely to be quite irritating. Dermatitis from



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these dusts is quite common. They may also cause asthmatic-like reactions in certain sensitive individuals. (We have already experienced this in our Company.)

Because active components of epoxy resin systems are present in them, dusts from Marinite cannot be treated as mineral dusts. Additional precautions are necessary, and the saw should be equipped with exhaust ventilation. (This is in accord with the recommendations of Johns-Mansville.) Probably most of the fabricating plants will require this type of set up. Respiratory protection is no substitute for exhaust ventilation, except at locations where cutting Marinite is an unusual, infrequent, and brief occurrence.

Sawyers should wear long sleeved shirts to protect their arms from the irritant dust. Personal cleanliness is also important and the men should be instructed to wash up following their exposure to Marinite dust.

If any of the recipients have any specific questions or comments concerning Marinite, we will be pleased to hear from them.

The latest of the Hygienic Guides are enclosed: Acrolein, Aluminum, Ethylene Glycol Monoethyl Ether, Manganese, Petroleum Naphtha, Pyridine, Tetraethyl Lead, Allyl Alcohol, Allyl Chloride, Cyclohexane, Ethyl Chloride, and Triorthocresylphosphate.

Tom Bonney

Thomas B. Bonney

TBB/mje
Enclosures

cc/encl: Company physicians
G. H. Farrah, J. M. Plunkett, ARL
F. H. Illig, Pgh.
M. O. Colwell, L. V. Cralley, file

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~~Feb. 1, 1964~~

Plant Doctors

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<u>Division</u>	<u>Works</u>	<u>Doctor</u>
<u>Raw Materials</u>	Bauxite	James Bethel
	Rosiclare	John R. Duffey
<u>Refining</u>	Bauxite	James Bethel
	Mobile	Howard Walker, Jr.
	Pt. Comfort	John Griffin
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	Badin	A. F. Lapsley
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	Vancouver	F. J. O'Hara
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<u>Fabricating</u>	Alcoa	*W. N. Dawson
		*J. C. Phelan
	Chillicothe	Charles N. Hoyt
	Cressona	Ralph Lyons
	Davenport	A. W. Shafer
		Frank J. Mac
	Edgewater	Joseph Ferrante
	Lafayette	No regular plant doctor
	Lancaster	Carl C. Kessler
	Massena	*Maurice J. Elder
	New Kensington	Colin Kamperman
	Richmond	Ralph W. Dreyer
	Vancouver	*F. J. O'Hara
	Kom E	T. M. Donovon
<u>Foundry</u>	Chicago	Ralph P. White
	Cleveland	W. A. Engel
	Detroit	A. J. Szmigiel
	Edison	Malcolm Dunham
	Vernon	Victor H. Barbour
<u>ARL</u>	E. St. Louis	*W. N. Dawson
	New Kensington	D. A. Fusia, Jr.
<u>Alcoa Bldg.</u>	Pittsburgh	W. Bethel Cook, Jr.
		C. P. Anderson
		E. A. Brethauer
		R. McC. Covle
		Norman Davis
		W. N. Dawson

* = duplication

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