

FROM JAMES E. HINES
INGOT CASTING DIVISION
ALCOA TECHNICAL CENTER - B

TO MR. HAIG SAKOIAN
PITTSBURGH OFFICE - 7

1980-01-21

RE: ASBESTOS USE IN ALCOA INGOT PLANTS

In review there is only one application within the ingot plants where asbestos needs to be used; that is, for header applications. This is in the area of the mold where a thermal break is required to control the solidification of the metal. There are adequate replacements in Johns-Manville's Marinite I and Pyrotek, Inc.'s Pyrotherm B-2 board products, and R-680 for almost all other melting and casting needs. Asbestos-containing Molten Metal Marinite need not be used for floats, basins, troughing, dams, etc.; and therefore, plants such as Davenport, Rockdale and Tennessee North should be asbestos free.

Even in header-related areas much of the asbestos can be replaced. It has been proven that R-680 can be used for all FDC ingot 635 mm (25 in) in diameter and below. The switch to R-680 takes some time because it involves header design modification and the fabrication of molds before the R-680 ceramic headers can be made. Plants which do FDC casting (Badin, Lafayette, Massena, Vancouver and Vernon) should begin or continue ordering more R-680 headers. By this substitution Lafayette, Massena and Vancouver will become asbestos free.

To date no adequate substitute for HDC and tool and jig headers has been found. R&D programs at ATC address this need by (1) continuing a cooperative effort with suppliers of insulating boards, (2) starting our own board development, and (3) testing R-680 in these areas. Molten Metal Marinite must still be used for all sheet ingot made at Point Comfort, Tennessee South, Warrick and Wenatchee; small HDC headers (152.4 and 177.8 mm [6 and 7 in]) at Badin and Wenatchee; and tool and jig headers at Vernon.

Hopefully, the goal for this year in the ingot plants and at ATC is to have replaced asbestos in those areas identified and to find or develop an adequate substitute for those other applications.

If there are any questions regarding substitutes, please contact Mario Caprio or myself.

James E. Hines

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JEH:bls

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