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REYNOLDS ALUMINUM

REYNOLDS METALS COMPANY • RICHMOND, VIRGINIA 23261

October 9, 1984

Editor
OCCUPATIONAL HAZARDS
1111 Chester Avenue
Cleveland, Ohio 44114

Dear Sir:

Your article, "Shopper's Guide to Hand and Body Protection," in the September issue, recommended the use of aluminum or asbestos hoods, sleeves, leggings, coats, and full body suits for workers exposed to intense heat sources. Due to the potential for exposure to asbestos fibers while using asbestos clothing, hoods, etc., I question the safety of your recommendation.

In the December 1982 issue of the Journal of the American Industrial Hygiene Association, Samini and Williams reported that employee exposures to asbestos fibers while wearing asbestos gloves were as high as 2.4 fibers/cc TWA concentration. In addition, significant numbers of asbestos fibers were detected on the worktable (9953 to 13,108 fibers >5μ) and on the hands after removing the gloves (741 to 3860 fibers).

This problem would, of course, be compounded by the use of hoods, sleeves, leggings, coats, or full body suits.

Currently, there are several substitutes for asbestos gloves (Zetex, Nomex, Kevlar) which have been shown to provide protection against sustained temperatures of up to 590°C. These same materials should also be quite effective as leggings, hoods, or full body suits. A new product, polybenzimidazole (PBI) developed by Celanese for NASA, appears to offer an excellent substitute for asbestos full body suits.

In any event, the inherent risks associated with the use of asbestos clothing precludes its application within Reynolds Metals Company.

Sincerely,

Ronald E. Benton

Ronald E. Benton
Technical Manager
Industrial Hygiene

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