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1981 July 23

PATRICK R. ATKINS

RE: ENGINEERING STANDARD "REMOVAL OF REFRACTORY LINING IN ALUMINUM FURNACES -
26.1.7"

The following are my comments regarding this proposed engineering standard:

1. Under Section 1, Scope, delete "American Association of Industrial Hygiene Guide" and substitute "American Industrial Hygiene Association Hygienic Guide Series."
2. Under Section 2.1, delete the word "dramatic" from the first sentence.
3. Under Section 2.2, delete the second and third sentences of the first paragraph and substitute, "All respirators should be NIOSH approved. The selection of appropriate respiratory protection for asbestos (dust respirator, powered air purifying respirator, supplied-air respirator, etc.) should be based on the concentrations of asbestos present. It should be noted that the 3M 9906 respirator is not approved for protection against asbestos."
4. I feel that the second sentence of the second paragraph should be deleted, based upon the difficulties of dilution ventilation for material as toxic as phosphene. Also, fans may increase the amount of airborne asbestos.
5. In the third sentence of the second paragraph, delete "either a self-contained air unit or an all-service gas mask" and substitute the phrase, "such as a gas mask respirator with a canister approved for phosphene (color coded as yellow with an orange stripe around the bottom), an airline respirator, or a self-contained breathing apparatus, depending on the concentration of phosphene."
6. In the 8th paragraph of section 2.1, after the third sentence, the following sentence should be inserted: "Further, if we add the standard safety factor of 10 for materials of this toxicity, 300,000,000 cubic feet of air would be needed."
7. In the 9th paragraph of section 2.2, delete the word "Kitagawa" and substitute the word "Draeger". The lower limit of protection for the Kitagawa detector tube is 50 ppm. The Draeger tube will measure to 0.1 ppm in its low range phosphene tube.
8. In section 2.3, the autoemission temperature of 104° to 105° F. does not match the conversion to degrees Celsius. Another reference I have found lists the autoemission temperature of phosphene as 100°F. (38°C).

ALCOA



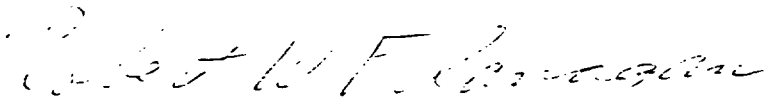
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9. Substitute the following sentence in section 3.2.1, Respirators:
"Based upon previous industrial hygiene sampling of exposures during removal of refractory linings, a properly fitted dust respirator will generally provide a sufficiently high protection factor.
10. Regarding section 3.2.2 - Clothing, the first two sentences of the third paragraph might be better organized under section 2 as regarding phosphene. It seems more appropriate under the phosphene section than under the asbestos section.


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