

SHELL OIL COMPANY

TO SEE ATTACHED LIST

DATE NOVEMBER 13, 1972

FROM MEDICAL DIRECTOR &
MANAGER - INDUSTRIAL HYGIENESUBJECT DEFINITION OF "EXPOSED"
IN OSHA STANDARDS

OSHA standards for health protection require that certain actions be taken if workers are "exposed" to contaminants. For example, the asbestos regulations, 29 CFR 1910.93 a (j) require medical examinations for an employee "... exposed to airborne concentrations ...", or "... engaged in occupations exposed to airborne concentrations ..." (emphasis added). The word "exposed" is not defined.

The range of concentrations which might indicate "exposure" can vary from the least detectable amount for the smallest measurable time to the situation in which the standard or maximum allowed concentration is exceeded. In the latter case, the worker would be "overexposed". If the former interpretation were followed, then anyone working with the material, and conceivably anyone in the vicinity of the material, could be deemed to be "exposed". Although this is an extreme definition, OSHA may nevertheless adopt it. Word has reached us from the medical and industrial hygiene departments of other companies that in response to their queries, OSHA has interpreted "exposed" to mean any exposure, however slight. (See attached correspondence from the U.S. Department of Labor.) The consequences of such a definition are quite apparent.

In view of this, and in relation to asbestos, specifically, we advise that it would be appropriate and prudent to consider two conditions which constitute "exposure" and which would require medical surveillance.

1. All employees whose jobs require them to work regularly with asbestos, or asbestos-containing insulation and other products. This would include employees recognized or assigned as insulators.

2. For all other employees who may use or be in contact with asbestos or asbestos-containing materials, we rely on the NIOSH definition of exposed:

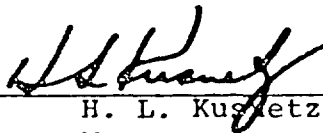
" ... For purposes of this requirement [medical surveillance] the term 'exposed to asbestos' will be interpreted as referring to time-weighted average exposures above 1 fiber/cc or peak exposures above 5 fibers/cc"

(Criteria for a Recommended Standard - Occupational Exposure to Asbestos. U. S. Department of Health, Education, and Welfare, NIOSH, P. I-3, 1972)

Accordingly, we recommend that medical examinations as defined in the Medical Director's memorandums of July 10, 1972 and September 1, 1972, be performed on all employees recognized as insulators, and on all other employees whose exposure meets the criteria in 2 above.



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Medical Director



H. L. Kusnetz
Manager
Industrial Hygiene

Attachments