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E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

LEGAL DEPARTMENT

October 16, 1984

Docket Officer
Docket No. H-033C
Room S-6212
U.S. Department of Labor
Third Street and Constitution Ave., N.W.
Washington, D.C. 20210

Re: Occupational Safety and Health
Administration Proposal to Revise
29 CFR §1910.1000 - Asbestos
Post-Hearing Brief of
E. I. du Pont de Nemours and Company

Dear Sir:

In the pre-hearing comments of E. I. du Pont de Nemours and Company (Du Pont) re the above-referenced proposal, the company requested to submit for the record a study it was conducting on workplace protection factors for elastomeric half-mask and single use respirators. The study was begun in 1983 and was not completed in time to present at the public hearings in June and July. The study is now finalized and is attached as exhibit A to these comments.

The authors of the study are Stephen W. Dixon, Supervisor, Industrial Hygiene, Haskell Laboratory for Toxicology and Industrial Medicine, and Thomas J. Nelson, Coordinator, Industrial Hygiene, Finishes and Fabricated-Products Department. Because the authors are considering publication, we would appreciate limited distribution of the study.

The Du Pont Respirator Study

In the Du Pont respirator study, workplace protection factors for elastomeric and single use half-mask respirators

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were measured during asbestos removal operations. In addition, two workplace protection factor measurements were made for a self-contained breathing apparatus operated in the pressure-demand mode. The operations consisted of asbestos removal from a ceiling (fire proofing) and removal of pipe insulation.

Results of the study showed that all respirators tested reliably provided workplace protection factors of ten or greater except the American Optical (AO) R1050 which reliably provided a protection factor of five or greater (based on the best estimates of the 5th percentile of workplace protection factors). Results for the self-contained breathing apparatus suggest that it may not provide appreciably better protection than the disposable and elastomeric facepiece respirators, though it created a significantly greater safety hazard (i.e., falling due to difficulty balancing the heavy tanks when climbing scaffolding, etc.).

Much of the hearing testimony regarding adequacy of respiratory protection, particularly for disposable respirators, was conjecture. The Du Pont study provides the only data which measures the protection provided by elastomeric and single use half-mask respirators for asbestos exposures in asbestos removal operations. Based on this information, the OSHA standard should permit use of these respirators.

OSHA should adopt a performance-based work practices standard for insulation removal and permit use of elastomeric half-mask and disposable respirators in these operations.

As stated in Du Pont's pre-hearing comments, the company urges OSHA to adopt a flexible, performance based standard which permits the use of respiratory protection to achieve compliance where engineering controls are not feasible, such as in the removal of old asbestos insulation. Even witnesses generally opposed to the use of respirators in workplaces where there is potential for exposure to asbestos agree that there are instances where respirators are the only feasible control measure. At the OSHA hearings on the asbestos proposal the National Institute of Occupational Safety & Health (NIOSH) stated:

"However, prior to the installation of or during the malfunction or maintenance of these engineering controls, for short-term intermittent exposures and

for certain operations that are performed at constantly changing locations, a need for respirators does exist."(1)

The final standard should acknowledge that respirator use will be the only adequate control for some activities and it should allow employers the flexibility to select protective equipment based on an assessment of the potential for exposure and the individual performance capability of the respirator.

Infeasibility of supplied air respirators in insulation removal

Air line respirators or self-contained breathing apparatus (SCBA) create safety hazards in a complicated removal operation where workers are constantly climbing and descending ladders or scaffolding because of the increased risk of tripping or falling. In addition, the limited data available in the Du Pont study suggest that contrary to the general assumption, supplied air respirators may not provide appreciably better protection than air purifying respirators. In view of the documented effectiveness of elastomeric half-mask and disposable respirators, Du Pont urges OSHA to permit use of these protective devices in insulation removal operations where expected concentrations will not exceed the use limits applicable for a particular type of respiratory protection equipment.

OSHA should provide additional opportunity to comment on the proposed standard

The preamble to the proposed standard discusses many regulatory possibilities which are not contained in the actual proposed standard. It is, therefore, difficult to identify precisely what the Agency is proposing and provide meaningful input. Consequently, Du Pont requests that OSHA not proceed from this comment period directly to a final standard; instead, the Agency should reissue a revised proposal reflecting the information received in this proceeding and solicit additional comments on this revised version.

(1) See testimony of the NIOSH transcript of the OSHA asbestos hearings on June 21, 1984, page 73.

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In summary, Du Pont supports OSHA's decision to reduce exposures to asbestos. For the specific activity of removal of old asbestos insulation, engineering controls are not effective in controlling exposures to less than 0.5 fibers/cc; consequently, respiratory protection should be permitted. The use of respirators will effectively control exposures as demonstrated by Du Pont's field study for negative pressure respirators.

If you have questions regarding any Du Pont materials submitted to the asbestos rulemaking record, I may be reached at 302-774-8284.

Very truly yours,



Julia L. Phillips
Attorney
Environment, Materials &
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JLP/cde
Att.