CENTRAL RESEARCH AND DEVELOPMENT DEPARTMENT
HASKELL LABORATORY FOR TOXICOLOGY
AND INDUSTRIAL MEDICINE

March 9, 1988

MEMORANDUM

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FROM: R. C. GRAHAM, AEL COMMITTEE SECRETARY R.C. Graham

AEL COMMITTEE NOTES

(Next Meeting - Wednesday April 13, 1988 - Haskell Laboratory
Haskell Laboratory Room #619 Starting at 9:00 a.m.

1. Minutes of March 9, 1988 Meeting

(a). Decision Items

C-8 (PPD)	CEG = 0.3 ug/m^3.
Hexafluoroethane (PPD)	AEL = 1000 ppm (8- and 12-hour TWA).
	CEG = 100 ppm (24-hour TWA).
Isopar® G and Isopar® L	AEL = 100 ppm (8-hour TWA).
Pentafluoroallyl Chloride (PPD)	CEG = 5 ppb (24-hour TWA).
Trifluoromethane (PPD)	AEL = 1000 ppm (8- and 12-hour TWA).
	CEG = 100 ppm (24-hour TWA).

Fiber Glass (AEL Fibers Subcommittee)

Fiber glass is produced either as a wool-like material or in the form of continuous filaments. This material is commonly used in construction of homes and buildings for thermal insulation. A large number of animal and epidemiological studies are available. Based on the results of these studies, a TLV® of 10 mg/m³ has been recommended. However, ACGIH has stated in their documentation for this limit that, based on the possible significance to man of various implantation studies in rats, the final decision on the toxicity of fiber glass must await findings of additional long-term mortality studies. Several of these studies were discussed at an international symposium in 1986. These studies will be reviewed in light of the current TLV® value, and an AEL will be recommended.

Continued Discussion Items

Lead (C&P)

Du Pont and OSHA have blood lead limits of 50 ug/dL for all workers. Du Pont also has a 30 ug/dL blood lead limit for women of child bearing capability. Blood lead levels greater than 60 ug/dL are associated with CNS effects, peripheral neuropathy, GI disturbances and anemia. Renal damage has also been reported at blood lead levels of 60 ug/dL or more. The Center for Disease Control (CDC) and EPA's Clean Air Scientific Advisory Committee have recommended that blood lead limits be reduced from 50 ug/dL to 24 and 9 ug/dL, respectively. C&P has requested the bases for these recommendations be reviewed.

Benzene (CR&D) (W. L. Sprout, M.D.)

OSHA promulgated a standard for occupational exposure to benzene on September 11, 1987. Accordingly, the exposure standard was reduced from 10 ppm to 1 ppm on December 10, 1987. Initial challenges by both trade unions and industry have been withdrawn. The standard seeks to reduce the risk of leukemia and is supported by a large number of animal and epidemiology studies. Benzene was last reviewed by the AEL Committee in 1982. A summary of that review indicated that chronic exposures of man to 50 ppm or more are associated with various hematological abnormalities, and that exposures to 100 ppm or more, to leukemia. No adverse effects were reported following occupational exposure to 10 ppm of benzene. The basis for OSHA's 1 ppm standard was reviewed. Because of the complexity of the data base involved, it was decided to continue this discussion at the March AEL meeting. A subcommittee of W. L. Sprout, N. D. Krivanek, A. M. Kaplan, and S. G. Hundley will select the most appropriate data to be used in preparing an updated AEL documentation.