TECHNICAL CENTER SERVICES

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
SOUTH CHARLESTON, WEST VIRGINIA

MEMORANDUM

26(j)

PLAINTIFF'S EXHIBIT

UC-3422

May 24, 1979

TO: Dr. R. J. Sexton, 512
*Mr. C. C. Smith, Jr., NYO (*Please note last paragraph)

CC: Mr. L. R. Noble, 512
Mr. D. R. Paugh, 512
Mr. H. L. Robinson, 511
Mr. E. C. Shipley, 512
Dr. T. N. Spencer, 511
Mr. C. W. Carman, 511

FROM: G. F. Hurley

SUBJECT: Medical Exams For Craftsworkers Exposed To Asbestos

Dr. Sexton requested an immediate opinion on required medical examinations for construction workers who might have been exposed to asbestos. A number of these people are scheduled for termination as a result of a reduction in the workforce.

Careful examination of the OSHA asbestos standard, Section 1910.1001, gave the following information:

1. Compliance

   a. Engineering controls are preferred, but Section 1910.1001(d)(ii) Personal Protective Equipment says "in work situations in which the (engineering methods) are technically not feasible" compliance maybe achieved by use of respirators.

   b. Part (d)(2)(i) Respirators

      An approved single use respirator "shall be used to reduce the concentration of airborne asbestos in the respirator below the exposure limits prescribed in paragraph (b) of this section when the ceiling or the 8 hour time weighted average airborne concentration of

b. (continued)
asbestos are reasonably expected to exceed no more than 10 times those limits." (OSHA limits of 2 fibers/cc or ceiling of 10 fibers/cc longer than 5 microns.) This assumes that respiratory training is provided and each employee is able to function normally wearing a respirator.

2. Medical Examinations

a. Section 1910.1001(j)(2)(3) and (4)

Provide for medical examinations. Paragraph (4), Termination of Employment, says an employer shall provide within 30 calendar days of termination of employment of an employee "exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination...." Paragraph (5) states that no medical exam is required if records show that the employee has been examined within the past one-year period.

b. An OSHA Program Directive, Number 300-16 was issued on October 11, 1978, to clarify the term "exposed to airborne concentrations of asbestos fiber." This is administratively interpreted to mean "exposed to a minimum of 0.1 asbestos fiber longer than 5 micrometers per cubic centimeter of air," as determined by the official prescribed method.

Thus "medical exams will be required for any 7 or 8 hour time-weighted average concentration of 0.1 fiber/cc or greater."

If the reduction factor of 10 noted above is valid also for application to the OSHA Program Directive, it would mean that respiratory protection is sufficient for protection in instances where ambient air concentrations are 1.0 fiber/cc or less.

Thus, my interpretation is that medical examinations are required only of employees who, either

1. did not wear respiratory protection in areas where airborne asbestos was found, or

2. wore proper respiratory protection, but the airborne concentrations exceeded 1.0 fiber per cc. Since not all coatings mechanics were monitored on every

2. (continued)
insulation removal job, the selection of those requiring medicals may have to be determined by examining the records for the past year. This would match job location with any monitoring done on that job. Also, it would be assumed that many small jobs of short duration where prescribed work practices were followed would result in low ambient levels of airborne asbestos.

Monitoring for asbestos in construction areas since May 1978 is shown on Table 1.

I am requesting, by this letter, that the Law Department consider this issue to either (1) state that my interpretation of the law is correct or (2) provide a correct interpretation.

George Hurley

G. F. Hurley, Technical Center
Industrial Hygienist

GFH/sc

Attachment - Table 1

TABLE I

ASBESTOS MONITORING - CONSTRUCTION DEPARTMENT

DATE	PERSONNEL	EXPOSURE FIBERS/CC	TWA 8-HOUR	SAMPLE TIME	PLANT LOCATION	APPROVED RESPIRATOR	DESCRIPTION
12/12/78	Brad Nester	2.8	No	0950-1038	TC	Yes	Stripping old insulation from piping in Building 773, third level.
	C. Miller	1.3	No	0950-1038	TC	Yes	
12/13/78	Brad Nester	0.4	No	1335-1350	TC	Yes	Stripping old insulation from piping in Building 773, third level.
	C. Miller	0.3	No	1335-1350	TC	Yes	
1/22/79	C.C. Bragg	7.25	No	0855-0920	CI	Yes*	Stripping old insulation from pipe flanges in the Sevin Unit.
	C.R. Lanier	5.30	No	0855-0920	CI	Yes*	*Both men had facial hair.
	Area Sample	0.30	-	0855-0920	CI	-	
3/17/79	J.F. Sampson	3.4	No	0830-0940	CI	Yes	Stripping old insulation from 3" steam line in east area - Complex 6.
	G.P. Hall	0.7	No	0830-0940	CI	Yes	
	J.F. Sampson	1.7	No	1023-1038	CI	Yes	
	G.P. Hall	2.9	No	1021-1038	CI	Yes	
	Area	0.3	-	0835-1040	CI	-	

UCC 017220

DATE	PERSONNEL	EXPOSURE FIBERS/CC	TWA 8-HOUR	SAMPLE TIME	PLANT LOCATION	APPROVED RESPIRATOR	DESCRIPTION
3/19/79	J.F. Sampson	0.2	No	0850-0938	CI	Yes	Stripping old insulation from 3" steam line in east area - Complex 6.
	D.L. Carpenter	0.4	No	0850-0938	CI	Yes	
	Area	0.01	-	0853-0940	CI	-	
5/15/79	M. Finney	4.0	2.2	0950-1115	TC	Yes	Stripping old insulation from Still Col., Building 707, Cell - 11.
	M. Finney	6.1		1300-1400	TC	Yes	
	C. Miller	2.0	0.9	0950-1115	TC	Yes	
	C. Miller	2.1		1300-1400	TC	Yes	

UCC 017221