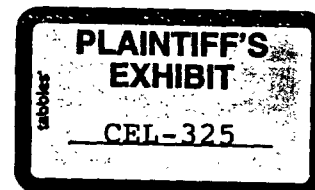


Interoffice Memorandum

TO (Name and Location)	DATE
K. A. Rose	6-21-79
FROM (Name and Location)	REFERENCE NO.
A. R. Hancock, J. H. Pritchard & F. Soliz	ARH-21-79
	JHP-4-79
	FS-11-79

OSHA Compliance Asbestos Measurements in the Special Products Unit



Summary:

Various operations personnel in the Special Products unit have been monitored for asbestos exposures during Celanex SEO-3310 natural and SEO-3210 black production run, 2/22-3/26/79 (Table I). Analytical results show all exposure levels below the allowable 8 hour time weighted average (TWA) of 2 fibers/cc longer than 5 micrometers. The highest asbestos concentration found was 0.68 fibers/cc while making an asbestos blend. Several recommendations are made:

- 1) Revise the current SOP for asbestos blending with attention given to the present placement of empty asbestos bags in drums outside the dump chamber and the present declothing procedures.
- 2) Use disposable gloves when handling asbestos.
- 3) Label the "decabromo" drums (used to store empty asbestos bags) with proper asbestos warnings and precautions.
- 4) The vacuum system must be in good working order at the time of the blend.

Asbestos monitoring will continue in accordance with federal regulations.

Discussion:

Attached are the results of the airborne asbestos monitoring during Special Products production of SEO 3310 natural and SEO 3210 black Celanex, 2/22-3/26/79 (Table I). Semi-annual sampling frequency is required by the Occupational Safety and Health Act, Section 1910.1001.

Measurements were obtained by attaching the monitoring equipment to operations personnel during an asbestos blend. Several "full shift" personal samples were taken for asbestos. This was done to ensure that personnel were not being exposed to asbestos elsewhere in the unit besides the asbestos blending procedures. The operator of MS 409 was also monitored for asbestos exposure (while on an

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asbestos run). All results were below the 8-hour TWA and the action level for asbestos. The highest concentration of asbestos seen was 0.68 fibers/cc while making an asbestos blend.

The asbestos samples were analyzed by National Loss Control Service Corporation, Long Grove, Illinois, accredited by the American Industrial Hygiene Association. The 8-hr. TWA's reported in Table I were calculated from their analyses.

The current SOP for making asbestos blends (posted on the dump chamber) is not being followed. Asbestos bags are being removed from the chamber and placed in the empty decabromo drums outside of the chamber instead of inside the chamber, as stated by the SOP. Most of the asbestos exposures are probably coming from this altered procedure.

Also, the blending personnel take off their disposable clothing (coveralls, dust masks, gloves) and place them into the decabromo drums along with the asbestos bags just prior to sealing the drums. The personnel do not have on their dust masks at this time and there is a noticeable amount of dust from "mashing" the bags and clothing into the drums. It is suggested that two drums be used for the disposing procedure. The drums with the asbestos bags could be sealed first, then the disposable clothing could be removed and placed in a separate drum. This "clothing" drum could be used several times before sealing permanently. Since the sampling pump is attached over the protective clothing, the monitoring equipment is usually removed from the blending personnel by this time. Therefore, no concentrations can be supplied for exposures during the declothing operation.

Recommendations:

It is recommended that the SOP for asbestos blending be revised with attention to the present placement of empty asbestos bags in drums outside the chamber and the present declothing procedure. Several recommendations previously made¹ should again be re-emphasized.

- 1) Disposable gloves should always be worn when handling asbestos.
- 2) The "decabromo" drums used to store empty asbestos bags should be properly labeled immediately after the blend is made.
- 3) It is a must that the vacuum system be in good working order when the blend is made.

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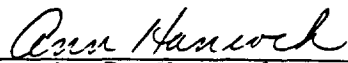
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Future Work:

No further asbestos sampling in the Special Products unit is scheduled until the third quarter, 1979.


A. R. Hancock

ARH:slh

1. Hancock, A.R., "OSHA Compliance Asbestos Measurements in the Special Products Units", ARH-7-79, 2-1-79.

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TABLE I
ASBESTOS MEASUREMENTS RESULTS

Name SS No.	Date	Job Description	8 hr. TWA Exposure ^{1,2,3} Fibers/cc	Highest Exposure ^{2,4} Fibers/cc	Comments
Don Strecker 488 476-30-8043	2/22/79	Operator	0.01	0.01	Operated MS-409 Extruder.
Area Sample 489	2/22/79	NA	NA	0.01	Sample taken near MS-409 chopper.
Benny Rodriguez 490 450-82-1183	2/22/79	Operator Helper	0.01	0.01	Did not make an asbestos blend.
Justo Suarez 491 453-60-3595	2/22/79	Utility	<.01	<.01	Did not make an asbestos blend.
Area Sample 492	2/22/79	NA	NA	<.01	Sample taken on top of asbestos dump chamber. No blend made.
Benny Rodriguez 493 450-82-1183	2/23/79	Operator Helper	0.03	0.03	All day sample. No blend made.
J. Suarez 494 453-60-3595	2/23/79	Utility	<.01	<.01	All day sample. No blend made.
Faye Loving 495 454-86-5247	3/01/79	Operator Helper	0.05	0.56	Made an asbestos blend, vacuum system not working.
Pat A. Schroeder 497 449-17-0495	3/01/79	Utility	0.01	0.09	Same as above.
Area Sample 499 500	3/01/79	NA	0.01	<.04	Area sample taken on top of asbestos dump chamber.
Kevin W. Childs 501 457-82-0912	3/13/79	Utility	0.01	.06	Made an asbestos blend. Asbestos fibers on floor.
Larry M. Trevino 504 450-82-1744	3/13/79	Operator	NA	0.04	
Area Sample 505	3/13/79	NA	NA	.06	Area sample by asbestos dump chamber.
Larry M. Trevino 509 450-82-1744	3/14/79	Operator	<.01	<.01	Did not make an asbestos blend.

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Name SS No.		Date	Description	8 hr. TWA Exposure ^{1,2,3} Fibers/cc	Highest Exposure ^{2,4} Fibers/cc	Comments
Childs 451-82-0913	S10	3/14/79	Operator Helper	<.01	<.01	Did not make an asbestos blend.
Area Sample	S11	3/14/79	NA	NA	<.01	Area sample by asbestos dump chamber No blend made.
Tomas Garza Not Available	S12	3/21/79	Operator Helper	0.02	0.57	Made an asbestos blend.
Kevin Wickham 049-79-0532	S13	3/21/79	Operator	0.02	0.68	Same as above.
Ignacio G. Reyes Not Available	S14	3/26/79	Utility	0.01	0.11	Same as above.
Delmino L. Garcia 453-84-9268		3/26/79	Operator	0.04	0.57	Same as above.

1. TWA - time weighted average. Calculations of 8 hr. TWA, General Industry Standards and Interpretations, U.S. Dept. of Labor, Volume 1, OSHA 2077, 1910.1000(d)(1), p. 701.
2. Permissible 8 hour TWA exposure to airborne concentrations of asbestos fibers, 2 fibers, longer than 5 micrometers, per cubic centimeter of air.

Ceiling concentration: 10 fibers, longer than 5 micrometers, per cubic centimeter of air, at any time.
3. Monitoring Method: According to Federal Register, Section 1910.1001(f)(2)(L).

Analyses: Phase microscopy fiber counting by National Loss Control Laboratory, Long Grove, Illinois.
4. Most of the "highest exposure" samples occurred during asbestos blends. Each sample was approximately 15-30 minutes in duration.

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ASBESTOS PERSONAL EXPOSURE DATA REVIEW AND RECOMMENDATIONS

DISTRIBUTION

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