

INDUSTRIAL HYGIENE MONITORING FOR ASBESTOSTO: R. F. Painter, Trlr. 5583
511Computer Ref. W-1076

CC: C. W. Carman, 725-105 D. R. Paugh, 511-2009 E. J. Tawney, 5583
 G. F. Hurley, 701-334 H. L. Robinson, 701-401 R. G. Rowe, M.D., 753
 L. R. Noble, 511-2149 E. C. Shipley, 511-2009 R. J. Sexton, M.D., 51

PERSON MONITORED

Location Bldg. 777 - Room 111 Date 8/19/80

EXPOSURE RESULTS

	Conc.	Sampling Time	Comments
Sample 1	10.1 fibers $> 5 \mu\text{m}/\text{cm}^3$	118 minutes	P.M. - Wetting and bagging insulation and cleaning up area
2			
3			
4			
5			
6			

Time-Weighted Average Concentration (TWA) 2.5 fibers $> 5 \mu\text{m}/\text{cm}^3$
 Ceiling Concentration _____

ALLOWABLE EXPOSURE

TWA 2 fibers $> 5 \mu\text{m}/\text{cm}^3$ OSHA UCC Other
 Ceiling _____ OSHA UCC Other

COMMENTS

Even though the workers had been advised to keep the insulation well wetted, it didn't appear as if they had done so.

WORK BY

Ruth Clise

APPROVED BY

George Hurley

UCC 017448

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512

PERSON MONITORED

Location Bldg. 777 - Room 111 Date 8/19/80

EXPOSURE RESULTS

	Conc.	Sampling Time	Comments
Sample 1	fibers > 14.4 5 $\mu\text{m}/\text{cm}^3$	125 minutes	P.M. Stripping insulation and cleanup of area.
2			
3			
4			
5			
6			

Time-Weighted Average Concentration (TWA) 3.8 fibers > 5 $\mu\text{m}/\text{cm}^3$
Ceiling Concentration _____

ALLOWABLE EXPOSURE

TWA 2 fibers > 5 $\mu\text{m}/\text{cm}^3$ OSHA UCC Other
Ceiling _____ OSHA UCC Other

COMMENTS

The concentration of fibers was as great the second day even though the men had been advised to keep the insulation well watered.

WORK BY

Ruth Clise

APPROVED BY

George Hurley

UCC 017449



INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 8361, SOUTH CHARLESTON, WEST VIRGINIA 25303

To (Name)	Mr. D. L. Johnson	Date	November 16, 1979
Division	511-5518 (512)	Originating Dept.	Technical Center IH/EP
Location		Subject	Asbestos Monitoring
Copy to	Mr. C. W. Carman		704 Powerhouse, First and
	Mr. G. F. Hurley		<u>Second Level</u>
	Mr. C. R. Johnson		
	Mr. D. R. Paugh		
	Mr. P. A. Perry		
	Mr. C. E. Richardson		
	Mr. H. L. Robinson		
	Mr. E. C. Shipley		

PROJECT

Determine the exposure of Construction workers to asbestos fibers during insulation stripping in Building 704.

DATE OF SURVEY

October 26, 1979

DISCUSSION

On October 26, 1979, separate breathing zone samples were taken on 1, and F to determine their exposure to asbestos fibers. They were stripping and bagging approximately thirty feet of an 8-foot by 6-foot exhaust duct coming from No. 3 boiler in Building 704 - Powerhouse on the first and second levels. During the stripping and clean-up procedure all Construction workers wore Norton disposable dust respirators, gloves, and coveralls. All others who needed to be working in the 704 Powerhouse operating area were given 3M disposable dust masks to wear during the stripping. Because the duct was hot and electric motors were situated near the duct, the insulation was only minimally wetted with a garden sprayer.

The dust created by the stripping and throwing the insulation to the floor became so heavy that the insulators were advised to

hand the insulation to the laborers to be bagged. The stripped asbestos was placed in plastic bags for disposal.

When the dust became so heavy at the site of stripping on the second level, samples were taken on the first level on the north and south side of the stack.

After the stripping of the duct on the second level was completed and the dust had settled some, breathing zone samples were taken on as they finished bagging the stripped insulation and cleaned the second level area.

When the stripping started on the first level, only area samples were taken. Two samples were taken on the first level on the north and south side of the stack, and one sample was taken on the west wall north of the stack on the second level. All area samples were placed at breathing zone level.

CONCLUSIONS

The dust collected on the breathing zone samples of , was so heavy that it was impossible to determine the concentration of asbestos fibers on these samples. The results of the other samples are given in the attached table.

Since asbestos levels were so high on samples taken after some of the initial dust had cleared, they were likely higher during the period of greatest dust concentrations. Since all people in the area wore masks they were probably protected if a good mask fit was obtained.

RECOMMENDATIONS

It is suggested that all Construction workers that are involved with the stripping and disposal of suspected asbestos containing insulation be shown the Industrial Hygiene slide presentation on the proper handling of asbestos containing materials.

REFERENCES

Volume 38C-29X4-R1a Asbestos, Dust Determination By Membrane Filter Technique Using Phase Contrast Microscopy

INDUSTRIAL HYGIENE MONITORING FOR ASBESTOSTO: R. F. Painter, Trlr. 5583
511Computer Ref. W-1075CC: C. W. Carman, 725-105
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H. L. Robinson, 701-401
E. C. Shipley, 511-2009E. J. Tawney, 551
R. G. Rowe, M.D.
753
R. J. Sexton, M.I.
511

PERSON MONITORED

Location Bldg. 777 - Room 111 Date 8/18/80

EXPOSURE RESULTS

	Conc.	Sampling Time	Comments
Sample 1	15.4 fibers > 5 $\mu\text{m}/\text{cm}^3$	41 minutes	A.M. Stripping insulation
2	11.3 "	149 minutes	P.M. Stripping insulation
3			and helping with cleaning of area
4			
5			
6			

Time-Weighted Average Concentration (TWA) 4.1 fibers > 5 $\mu\text{m}/\text{cm}^3$
Ceiling Concentration _____

ALLOWABLE EXPOSURE

TWA 2 fibers > 5 $\mu\text{m}/\text{cm}^3$ OSHA UCC Other
Ceiling _____ OSHA UCC Other

COMMENTS

More water should be used to wet the insulation before stripping. Those stripping and bagging should always wear their disposable dust respirator while in the area and until the cleanup is finished.

WORK BY

Ruth Clise

APPROVED BY

George Hurley

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PERSON MONITORED _____

Location Bldg. 777 - Room 111 Date 8/18/80

EXPOSURE RESULTS

	Conc.	Sampling Time	Comments
Sample 1	6.3 5 $\mu\text{m}/\text{cm}^3$ fibers	42 minutes	A.M. - Wetting and bagging insulation
2			
3	3.9 "	149 minutes	P.M. - Wetting and bagging insulation and cleaning up area
4			
5			
6			

Time-Weighted Average Concentration (TWA) 2.8 fibers > 5 $\mu\text{m}/\text{cm}^3$
Ceiling Concentration _____

ALLOWABLE EXPOSURE

TWA 2 fibers > 5 $\mu\text{m}/\text{cm}^3$ OSHA UCC Other
Ceiling _____ OSHA UCC Other

COMMENTS

More water needs to be used in keeping the insulation wetted. Disposable dust respirators should be worn while in the stripping area and until the cleanup is completed.

WORK BY

Ruth Clise

APPROVED BY

George Hurley

RESULTS

<u>DATE</u>	<u>SAMPLE TYPE</u>	<u>TIME (MINUTES)</u>	<u>ASBESTOS FIBERS (Fibers >5 $\mu\text{m}/\text{cm}^3$)</u>	<u>REMARKS</u>
10/26/79	Area	32/2 LPM	0.28	First level, north side of stack while dust was settling after stripping on the second level. Cleanup being completed on second level.
10/26/79	Area	27/2 LPM	0.51	First level, south side of stack while dust was settling after stripping on the second level. Cleanup being completed on second level.
10/26/79		15/2 LPM	3.93	Bagging insulation after stripping on second level finished.
10/26/79		15/2 LPM	2.97	Bagging insulation after stripping on second level finished.
10/26/79	Area	51/2 LPM	1.01	First level, north of stack while first level being stripped.
10/26/79	Area	55/2 LPM	0.9	First level, south of stack while first level being stripped.
10/26/79	Area	48/2 LPM	1.16	Second level, on west wall, north of stack while first level being stripped.

REPORT PREPARED BY

Ruth Clise
Technical Center Industrial Hygiene Group



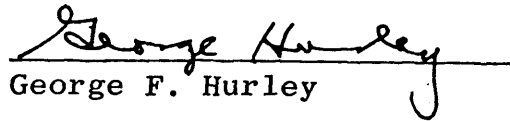
Ruth Clise

Mr. D. L. Johnson

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11/16/79

REPORT APPROVED BY


George F. Hurley

RC/sc