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INTERNAL CORRESPONDENCE

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Name: Mr. D. L. Johnson
Mr. E. C. Shipley
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Date: March 29, 1979

Originating Dept: Technical Center IH/EP

Subject: Asbestos Monitoring at Institute

By to: Mr. L. R. Noble
Mr. H. L. Robinson

PROJECT

Monitor exposure of insulators to asbestos during the removal of insulation from a 3" steam line in East Area Complex Six.

DATE OF SURVEY

March 17 and 19, 1979

DISCUSSION

Construction insulators J. F. Sampson and G. P. Hall wore personal samplers while removing sections of insulation from a 3" steam line which crossed the road approximately 15 feet above the ground. The area below the insulators was evacuated initially with some walk-through traffic later. The insulators wore respirators during the entire operation. The insulation was not wetted with water during removal. The personal samples indicated asbestos concentrations of 3.4 and 1.7 fibers/cc. When it was determined that another section of insulation needed removed, more personal samples were taken. This time the air concentrations were 2.9 fibers/cc and 0.7 fibers/cc.

On March 19, 1979, Mr. J. F. Sampson and Mr. D. L. Carpenter wore respirators and personal samplers while removing insulation from the steam line which was taken down on the 17th of March. The insulation was wetted with water before and during removal. The air concentration indicated by the samplers were 0.2 fibers/cc and 0.4 fibers/cc. An area sample twenty feet downwind from the operation showed a concentration of 0.01 fibers/cc. The OSHA standard sets a ceiling limit for a 15-minute exposure of 10 fibers/cc and a limit of 2 fibers/cc for an eight-hour time-weighted average exposure.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The exposures of the insulators were below the OSHA permissible exposure limits. Exposure requirements of the OSHA standard may be more easily satisfied by the use of wet methods to prevent emission of airborne asbestos fibers. One way to do this is the use of garden sprayers to wet asbestos-containing insulation in locations inaccessible to water hoses.

Also, in order to better protect other employees in the area from exposure to excessive concentrations of airborne asbestos fibers, barricade tape and warnings signs should be posted around every asbestos job. It may be useful to have stands made to which the tape and signs could be fastened.

DATA

Date	Sample	Sampling Time	Air Conc. (F/cc)
3/17/79	J. F. Sampson	0830 - 0940	3.4
3/17/79	J. F. Sampson	1023 - 1038	1.7
3/17/79	G. P. Hall	0830 - 0940	0.7
3/17/79	G. P. Hall	1021 - 1038	2.9
3/17/79	Area	0835 - 1040	0.3
3/19/79	J. F. Sampson	0850 - 0938	0.2
3/19/79	D. L. Carpenter	0850 - 0938	0.4
3/19/79	Area	0853 - 0940	0.01

REFERENCES

UCC C/P Industrial Hygiene #38C-29X4 - R1A
OSHA 29 CFR 1910.1001

REPORT PREPARED BY

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