PLAINTIFF'S EXHIBIT

UC-2685

UNION CARBIDE

INTERNAL CORRESPONDENCE

AGRICULTURAL PRODUCTS COMPANY, INC. • P O BOX 2831 CHARLESTON, WEST VIRGINIA 25

INSTITUTE PLANT

To (Name) Mr. G. F. Hurley
Division Building 701, 334
Location Technical Center
Floor Number

Date July 25, 1980

Originating Dept. Industrial Hygiene

Floor Number

Answering letter date

Copy to Mr. K. B. Drake
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Mr. A. S. Howard
Mr. S. W. Jensen
Mr. L. R. Noble
Dr. R. J. Sexton
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Mr. Fred Williams

Subject Asbestos Exposure Potential, Precipitators, No. 1 Steam Plant

RECEIVED
JUL 2 1 1980
G. F. HURLEY

Concern has been expressed on various occasions relative to the condition of protective covering over asbestos containing insulation on the south side of the No. 1 Steam Plant precipitators. A recent storm apparently caused large sections of the protective cover to be torn from the precipitators, leaving some sections free to move according to wind direction and velocity.

Industrial Hygiene was requested to evaluate the existing conditions in terms of personal exposure potential of personnel involved in the 511 Construction Project of retubing the boilers. By observation, the condition appeared to have serious potential and it was suggested to Mr. Jensen that "free-hanging" protective cover be removed and consideration be given to application of a binder material to the exposed insulation. Sampling at appropriate locations and personal sampling of selected workers for asbestos exposure was initiated to determine the degree of the apparent problem.

The current OSHA Standard for asbestos sets an eight-hour time-weighted average airborne concentration to which any employee may be exposed not to exceed two fibers, longer than 5 micrometers, per cubic centimeter of air. A ceiling concentration of 10 fibers has been established which is not to be exceeded for any time period.

Samples collected at this location on July 21, 1980, show results as follows:

Name/Type Sample	Fibers/cm^3	Job Task/Location
D. R. Stephens	~~1.8~~ 1.7	Rigger inserting piping in tube sheet. 3rd level.
W. P. Gilmore	0.08	Rigger guiding tubes into tube sheet. 4th level.
S. J. Edens	0.09	Rigger guiding tubes into tube sheet. 4th level.

Name/Type Sample	Fibers/cm^3	Job Task/Location
B. J. Wehrle	0.05	Rigger inserting piping in tube sheet. 3rd level.
Area	0.05	Face level No. 3 boiler (upwind) while pipe was inserted.
Area	0.09	Face level No. 3 boiler (downwind) while piping was inserted.
Area	None detected	South of No. 6 precipitator at source - undisturbed by workers.
Area	None detected	South of No. 4 precipitator at source - undisturbed by workers.
Area	None detected	South of No. 1 boiler while scaffold was erected at No. 3 (downwind).
Area	0.05	South of No. 2 boiler while scaffold was erected at No. 3 (downwind).

These data indicate that exposure potential to airborne asbestos is minimal from the large areas of exposed insulation material on the south side of the precipitators when the material is undisturbed. The four personal samples were collected during a time period when tubes were being inserted into the north side of the tube sheet and local disturbance of the insulation material was near a maximum. The extreme north tubes require manipulation of the piping against the insulation and it was observed that pieces of insulation up to half inch diameter were being released into the work area. Individual fibers, which are the real hazard, were not being released at the expected rate nor at an excessive degree.

Industrial Hygiene, therefore, recommends the following:

1. Energy Systems follow-up on a Maintenance request to remove all "free-hanging" protective covering which can be safely removed without scaffolding. Personnel involved should wear a 3M dust mask and the insulation side of the removed covering should be wet down for immediate disposal.

2. Plant 511 Construction personnel should continue to wear 3M dust masks while inserting tubes in the north side of the respective tube sheets and/or while raw insulation is being disturbed.

3. At the discretion of the Construction supervision, a sealer may be applied at local areas of exposed insulation proximal to where work is to be performed and insulation is likely to be disturbed.

Should there be questions or need for additional monitoring, please call me at 6161.

H. H. Frazier