SH-32 (Rev. 9-57)

REFERENCE

SHELL OIL COMPANY

DATE OCTOBER 31, 1974

TO WESTERN E & P REGION
MID-CONTINENT DIVISION
MICHIGAN OPERATIONS - MANAGER

FROM INDUSTRIAL HYGIENIST
DEPARTMENT OF OCCUPATIONAL
SAFETY AND HEALTH - WOOD RIVER

SUBJECT GRANULAR ASBESTOS SURVEY

Personal sampling tests were made on September 24 at three drilling sites to evaluate workers' exposure to airborne concentrations of asbestos fibers during mud mixing operations, using the Montello New Granular Super Visbestos pelleted product. Mr. E. J. Kleber, Customer Service Representative, Union Carbide Corporation, took samples concurrently along with these. The purpose of the tests was to compare the exposures using this product with those taken on June 3 and 4 using the Montello Super Visbestos material (the same asbestos in a loose fluffy form).

At each of the sites, 25 bags of asbestos were carried from a truck to the hopper, opened and mixed, and with the exception of Cactus Rig #21 the empty bags were carried to a dump site. Handling conditions at each of these and the June sites were different; these tests involved sampling times of about 12 to 18 minutes with 25 bags; the June tests involved about 5 minutes with 6 bags.

The table below shows the average exposure for each man for the total sampling time involved, and his time-weighted average as calculated for an 8-hour shift with an assumed background concentration of 0.2 fibers/ml for the balance of the shift not involved in the sampling period. This arbitrary background figure weighs heavily on the 8-hour average, due to the short actual exposure times, but would not be considered an excessive estimate for the purpose of these evaluations. The first three sites are the September tests, the last two are the June tests, evaluated the same way for ease of comparison.

Location	Name	Total Sampling Time (Minutes)	Average Fibers/ml	8-Hour Average with Background
(September: New Granular Super Visbestos)				
Cactus		11.8	3.40	0.28
Rig #16		11.8	6.34	0.35
Cactus		18.2	6.37	0.43
Rig #21		18.2	2.72	0.30
Cedco		16.3	0.60	0.21
Rig #37		16.3	0.58	0.21
(June: Super Visbestos)				
Cactus		5.25	11.64	0.33
Rig #21		5.25	1.07	0.21
Chapman		5.0	1.99	0.22
Rig #8		5.0	0.67	0.20

PLAINTIFF'S EXHIBIT
SH-348

ABS-046960

I noticed that in the July 17 report, second paragraph, last two sentences, I transposed Jensen's and Porter's names. Jensen was samples 1 and 3, Porter 2 and 4, as is according to the individual sampling sheets. The reference to the high values in paragraph four should also be Jensen's rather than Porter's.

There appears to be no significant difference in the use of the two materials in these short-term applications. Discounting the high value of Jensen's test in June due to improper handling procedures, the tests would favor the Super Visbestos over the New Granular Super Visbestos. This could possibly be explained in that the fluffy material seemed to cling together and did not appear to have a lot of fine dust, whereas the granular material breaks up in the bags producing considerable amounts of fine dust, in the particle sizes which are being counted in the analysis.

With proper handling procedures, either material could be used while maintaining compliance with OSHA Standard 1910.93a. The recommendations of the previous report and administrative requirements of the OSHA standard should be implemented if the use of asbestos is to be continued.

RK Jones

R. K. Jones

Attachments

RKJ/cho

cc: Head Office - E&P Mid-Continent Division - Safety & Environmental Conservation - Manager
E&P Mid-Continent Division - Michigan Operations - Staff Environmental Specialist