

E. Jones	SUBJECT Asbestos Exposures	
S. Venable	DATE	FILE NO.
BATON ROUGE, LA.		

On October 8-9, 1974, I collected air samples for asbestos fiber analysis at the No. 2 PCLA turnaround. As you know, we are required by OSHA regulations (Para. 1910.93a (f) 3) to monitor the exposures of employees every six (6) months.

The removal of existing asbestos - containing insulation from lines and vessels during the turnaround afforded an opportunity for representative samples to be taken.

Three samples were collected by means of a personal sampler during the removal by one of our insulators of the material covering an 8-inch hot oil lines on overhead pipebands. The results of these samples are as follows:

SAMPLE NUMBER	SAMPLE RATE	SAMPLE TIME	NUMBER OF FIBERS GREATER THAN 5 μ /cc
1	1.35 LPM	16 Min.	15
2	1.35	4	78
3	1.35	3	58

The TLV for asbestos is 5 fibers greater than 5 microns in length per cubic centimeter of air.

The insulator was wearing a Welsh disposable dust respirator approved for concentrations up to 10 times the limits (100 fibers/cc for ceiling concentrations) and was, therefore, adequately protected from inhalation of asbestos. I should point out, however, that Paragraph (C) 2 iii covering work practices during spraying, demolition or removal calls for providing the employee with respiratory protection of Type "C" supplied air respirators and special clothing.

Two air samples we collected while a contractor's employee removed insulating material containing asbestos from the exterior of the reactor vessel at No. 2 PCLA. The results of these samples are as follows:

SAMPLE NUMBER	SAMPLE RATE	SAMPLE TIME	NUMBER OF FIBERS GREATER THAN 5 /cc
4	1.35 LPM	3 Min.	255
5	1.35 LPM	2.5 Min.	203

There are a number of observations regarding these removal jobs that warrant discussion.

The extremely chesty nature of these jobs appear to be the result of prolonged heating and drying of the calcium silicate - asbestos insulation. It is difficult, if not impossible to suppress this dust by prior wetting by water hoses, since pipe insulation, in particular is covered with weatherproof paper and this must be removed before water can reach the insulation material. The problem is further complicated because the insulator is working at relatively high evaluations with, often, poor footing. Any attempt to wet the insulation during actual removal using water hoses might contribute to an accident from slipping or working on the wet asbestos. The alternative used in this job was to drop the dry insulation to the ground and immediately wet it with water. This practice at least minimizes the dust problem during subsequent clean-up and removal of the scrap asbestos.

The contractor's job of removing insulation from the shell of the reactor is also complicated by the large quantities to be removed, the dustiness of the material and the added problem of wire mesh support of the asbestos cement. Large amounts of dust are generated when the wire mesh is cut or shaken as it is removed. This scrap material also cannot be bagged before removal since the wire readily cuts the plastic bags usually employed for scrap disposal.

There are a number of items concerning these jobs that I feel deserve comment. Of first concern is the clothing contamination by asbestos dust which is almost unavoidable in this scope of removal operations. Not only are we violating the existing regulations concerning clothing by not providing such clothing and laundering it, but we are also failing to protect our employees and the families of our employees from asbestos exposure. The matter of protection of contractor's employees is also worthy of consideration by our management.

While we issued refinery-wide guidelines on asbestos handling soon after the effective date of the standard in 1972, there are still deficiencies in our compliance with these guidelines, specifically the failure to restrict unprotected employees from these areas and the failure to post warning signs in the asbestos work area.

While we initially embarked upon the asbestos control program with some reservations concerning its real significance to the problem of asbestos caused disease and some degree of complacency regarding the health of our employees, there has been considerable change in thinking, at least on the part of this writer, because of the appearance of two cases of mesothelioma in recent months among Exxon Company employees.

If you agree that we should discuss these matters with management, I am prepared to do this.

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