CYANAMID

PLAINTIFF'S EXHIBIT

ACC-7

To: J. Marin

Location: AZ

From: N. D. Yin

Location: NA

Extension: 2708

Date: October 13, 1989

Copy to: J. C. Caporossi - W3
C. Lawrence - AZ

Subject: INDUSTRIAL HYGIENE SURVEY - AZUSA

Reference:

An Industrial Hygiene survey was provided to Azusa on August 15-18, 1989. During the survey, 29 bulk asbestos samples were collected to identify most of the asbestos in the plant. Four (4) air samples were taken to evaluate airborne asbestos levels. Although all airborne levels are below OSHA limits of 0.2 fibers/c.c. (Table 2), the surface condition for some pipelines, especially in the old resin plant, are not so well (Table 1). Thus, an asbestos abatement plan must be developed to encapsulate or remove damaged parts before the asbestos becomes airborne. In addition, warning signed such as "Danger: Contains Asbestos Fibers; Avoid Creating Dust; Cancer and Lung Disease Hazard" shall be posted on materials identified with asbestos and all asbestos information shall be made available to the employees affected.

Eleven (11) noise exposures were also monitored and found below OSHA limit of 90 dBA. Six (6) hydrogen dioxide and 3 hydrogen sulfide samples were collected. Results show they are all below the detectable limit. Eleven (11) personal exposures to dust, nickel, molybdenum and aluminum were also monitored. Results are all below the current OSHA permissible exposure limits; all results are contained in Tables 2 to 6. However, ACGIH has proposed to reduce its nickel TLV's from 1 mg/M^3 to 0.05. Although nickel exposures measured during this survey were all below 0.05 mg/M^3, training on handling nickel and review of process should be conducted, semiannually, to control the potential exposure and prevent skin contact.

N. D. Yin

NDY:cf/ndy1013a

Attachments

Table 1
Results of Bulk Asbestos Sampling

Date	Sample No.	Location	Asbestos Identification Type	% By Volume	Surface Condition
8/16/89	B1	Roof of Catalyst Bldg. kiln exhaust line East Side, Broken Line.	None Detected		Broken
	B2	Same as above, Black interior filling Material.	None Detected		Broken
	B3	Same as above, West Side, Broken Line.	None Detected		Broken
	B4	Same as above, West Side, Broken Line.	None Detected		Broken
	B5	Transite Wall, Resin Plant Bldg. 124	Chrysotile	10	ok
	B6	Transite Material, Cooling Tower	Chrysotile	25	ok
	B7	Transite Material Large Electrical Control Room (North Side).	Chrysotile	25	ok
	B8	Transite Material, Small Electrical Control Room (South Side).	Chrysotilze	25	ok
	B9	Transite Material, AFI Building (Painted in Yellow).	None Detected		ok
	B10	Insulation of Steam Pipe across the Maintenance Shop	Amosite	30	Small Damages Observed

Table 1 (cont'd)

Date	Sample No.	Location	Asbestos Identification Type	% By Volume	Surface Condition
8/16/89	B11	Pipe-Line Outside of Store Room.	Amosite	35	Damage at Upper level
	B12	Suspended Pipeline Behind Nomax Bldg., Northside of Store Room	Amosite	35	Minor Damages on Elbow
	B13	Elbow of Pipe Between Resin Plant and Resin Tank Farm (East of Resin Plant)	None Detected		Broken
	B14	Pipe Between Tank #10 and #12 in Resin Tank Farm.	Amosite	60	Broken
	B15	Small Pipe under Tank #10 in Resin Tank Farm.	Amosite Chrysotile	30	Broken
	B16	Suspended Pipe-Line Next to Nitric Acid Unloading Platform.	Amosite	55	Partial Damaged
	B17	Pipeline Behind #5E 3354 Fatty Acid Tank, East of Resin Plant	Chrysotile Amosite	25 35	Broken
	B18	Pipeline Outside of Resin Plant Suspended on yhr Rsdy Wall.	Chrysotile Amosite	30 30	Broken
	B19	Pipe Between BK1 and CK1 Tanks, Above CYMEL Storage Drums.	Chrysotile Amosite	15 30	Broken
	B20	Catalyst Bulk Caustic Storage Tank.	None Detected		Minor Damages Observed

Table 1 (cont'd)

Date	Sample No.	Location	Asbestos Identification Type	% By Volume	Surface Condition
8/17/89	B21	Pipeline Next to the Wall Clock, Boiler Room.	Amosite	40	Broken
	B22	Insulation on Boiler #4.	None Detected.		ok
	B23	Yellow Steam Pipe Next to No. 4 Boiler.	Chrysotile	20	Broken
	B24	Black/Gray Water Line Next To #4 Boiler.	None Detected		Broken
	B25	Boiler #5 Insulation	None Detected		ok
	B26	Return Condensate Line to Condensate Tank of #6 Boiler.	None Detected		ok
	B27	Steamline to Condensate Tank Under the Platform.	None Detected		ok
	B28	Steam Line North of Tank BK5 at Lower Level.	Amosite	30	ok
	B29	Heating Pipe to Chipping Rest Room, Resin Plant.	Amosite	40	ok

Table 2

Results of Area Asbestos Air Sampling

Sampling Date: 8/15/89

Sample No.	Area	Time On	Time Off	Air Volume(l)	Airborne* Fiber Count (Fiber/C.C.)
A1	Utility Area, On Top of Operator's Desk.	10:30	16:25	366	0.004
A2	Utility Area, North of #5 Boiler, On Top of Blow Down Sentinel For #6 Boiler.	10:31	16:25	372	0.007
A3	Resin Plant, BK1 South Area, On Top of CYMEL Storage Drum	10:36	16:25	340	0.012
A4	Maintenance Shop, Center Work Bench.	10:45	16:25	356	0.010

*Current OSHA PEL for Asbestos is: 0.2 Fibers/c.c. (8 hr. TWA) and 1 Fibers/c.c. (For 30 Minutes STEL).

Table 3

Results of Personal Noise Exposure

Product = 1443

Name	Job	Date	Time On	Time Off	TWA Exposure* (dBA)
Juan Gutierr	Extruder Opr.	8/15/89	8:14	16:50	82.9
		8/16/89	8:20	16:58	86.5
Skaria Issac	Kiln Opr.	8/16/89	8:10	16:57	86.0
		8/17/89	9:05	16:26	84.8
Barry Clayton	Sup. Catalyst	8/16/89	8:15	16:56	79.9
		8/17/89	8:18	14:25	85.2
Dave Lamb	Maintenance Sup.	8/16/89	8:25	16:21	71.0
Don Grush	Maintenance Opr.	8/16/89	8:30	17:21	79.8

*Current OSHA PEL is: 90 dBA (8 Hr. TWA)

Table 4

Results of Nitrogen Dioxide Sampling*

Date = 8/18/89 Product = 1443

Name/Location	Job	Sample ID	Time On	Time Off	TWA Exposure** (ppm)
Rich Coons	Solution Opr.	1	8:08	16:30	<0.104
Skaria Issac	Kiln Oper.	2	8:05	16:30	<0.104
Barry Clayton	Sup. Catalyst	7	8:19	16:35	<0.107
Area, On Top of Tank 300-30 Metal Solution Platform		3	8:09	16:35	0.112
Area, Trimmer System, Make Up Tank		4	8:16	16:35	<0.104
Area, East End of Calciner "A"		5	8:12	16:30	<0.104
Area Ground Level Quench Tower		6	8:13	16:30	<0.104

*Sampling Method, Palmes Tube
**OSHA PEL for Nitrogen Oxide = 3ppm TWA

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Table 5

Results of Hydrogen Sulfide Sampling*

Product = 1443

Name	Job	Date	Time On	Time Off	Air Volume(l)	TWA Exposure* (ppm)
Rich Coon	Solution Opr.	8/17/89	10:00	16:20	39.1	<0.202
Area, On Operator's Desk At Solution Platform		8/17/89	10:00	16:45	86.3	<0.091
Area, Nomax Bldg. South Walkway, Next to the Clock		8/18/89	8:15	16:40	52.0	<0.152

*OSHA PEL For Hydrogen Sulfide = 10 ppm TWA.

Table 6

Results of Dusts, Metals Exposures

Product = 1443

Name	Job	Date	Sample No.	Time On	Time Off	Air Volume(l)	TWA Exposures* Mg/M^3 Total Dust	Mo	Ni	Al
Don Grush	Maintenance Opr.	8/16/89	M1	10:17	17:21	546.9	0.53	<0.0002	0.003	0.006
Bob Lewis	Impregnator Opr.	8/16/89	M2	8:15	16:48	538.5	0.89	<0.0002	0.012	0.19
		8/17/89	M8	10:17	16:25	362.6	1.24	<0.0003	0.025	0.24
Skaria Issac	Kiln Opr.	8/16/89	M3	8:10	16:47	501.5	0.60	<0.0002	0.007	0.12
		8/17/89	M9	9:05	16:25	426.8	0.94	<0.0002	0.01	0.16
Adalberto Casillas	Muller Opr.	8/15/89	M4	8:15	16:50	451.4	1.06	<0.0002	0.005	0.13
	Opr.	8/16/89	M5	8:22	16:46	500.9	0.82	<0.0002	0.002	0.17
		8/17/89	M10	8:10	16:25	490.0	0.57	<0.0002	0.003	0.10
Rick Goons	Solution** Opr.	8/16/89	M6	8:05	16:05	499.2	0.52	<0.0002	<0.001	0.03
		8/17/89	M7	8:18	16:18	499.2	0.56	<0.0002	0.003	0.06
Juan Gutierr	Extruder	8/17/89	M11	8:03	16:25	531.1	0.51	<0.0002	0.005	0.11

*

Substance	OSHA-PEL (TWA)(mg/M^3)	ACGIH-TLV (TWA)(mg/M^3)
Total Dust	10	10
Nickel, Metal	1	0.05 - Intend to Change
Molybdenum, Soluble	5	5
Aluminum, Soluble	2	2

**Did Not Charge Nickel on this Day.

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