



PLAINTIFF'S EXHIBIT

VCC-5

To: A. W. Delgado

Date: April 25, 1985

Location: Azusa

Copy to:

Route to:

From: N. D. Yin

J. C. Caporossi - NA

J. Marin - AZ

Location: Wayne

R. P. Krehling - NA

J. B. Reid - NA

Extension: 2708

Subject: I. H. SURVEY - AZUSA

Reference:

*Copies to E. Tatum Co
A. K. Yushin
K. L. Druker
y. Bunkin*

An industrial hygiene survey was conducted at Azusa on February 26 to 28, 1985. Below are items accomplished during this survey and recommendations for action where indicated.

File 10.11

A. Noise

The OSHA required annual noise survey was completed by measuring area and personal exposures. Major noise sources, previously identified as the Miller-Grinder machine in the calciner area and the attic fan in the metal solution area (I.H. survey report, Azusa Plant, August 23-26, 1982), remain.

However, because of worker mobility, all personal exposures measured were below the OSHA and Cyanamid permissible limit of 90 dBA. Results are in Tables A1 to A5.

B. Chemical Exposure

Employee exposures to dusts, metals (lithium, nickel) and NO₂ were monitored. Results, listed on Table B1 to B2, showed that exposures measured were all below Cyanamid and OSHA limits.

C. Asbestos

An asbestos inspection was conducted during this survey. Non-process areas (administration building and training center) were inspected. No structural asbestos material was found. This completes Azusa's requirements for the Chemicals Groups' asbestos study of non-process areas.

*Copy of H. Marin
only first two pages.
Nud Action Plan
developed by 5/22/85
AW Delgado*

A. W. DELGADO

A. W. DELGADO

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Since the nitric acid pipe insulation material was removed prior to this survey, wipe samples were collected during this survey to ensure the elimination of the asbestos. The negative results from wipe samples proved that the contractor involved has done a thorough job.

A field test was performed on the steam pipe (next to nitric acid pipe) insulation. Positive results confirmed by lab analysis indicated an asbestos content as 30% amosite and 20% chrysotile. Other tanks and pipes insulation have yet to be tested.

Recommendation

1. Complete the identification of asbestos materials in process areas before the end of 1986.
2. Use Attachment C1 as a guide for any asbestos removal project. Plant maintenance employees are required to take the protective measures described in Table D1 when working with asbestos.
3. Monitor personal/area asbestos exposures where asbestos is identified to assure compliance with the OSHA asbestos standard.

D. Ventilation

A ventilation inspection was made of all chemical hoods in the laboratory. Face velocities measured for these hoods showed that they do not meet Chemicals Group required air flows (Table D1).

Recommendation

1. Modify laboratory exhaust ventilation systems to bring minimum face velocities to 80 FPM for all hoods.

Please prepare a proposal implementation plan to assure compliance with these recommendations and submit a copy to the writer for review. A final plan should be established by 6/15/85.



N. D. Yin

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08/6645G

Attachments

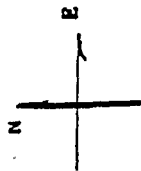


TABLE A-1
Results of Area Noise Survey
Calciner Area, Azusa Plant
February 27, 1985

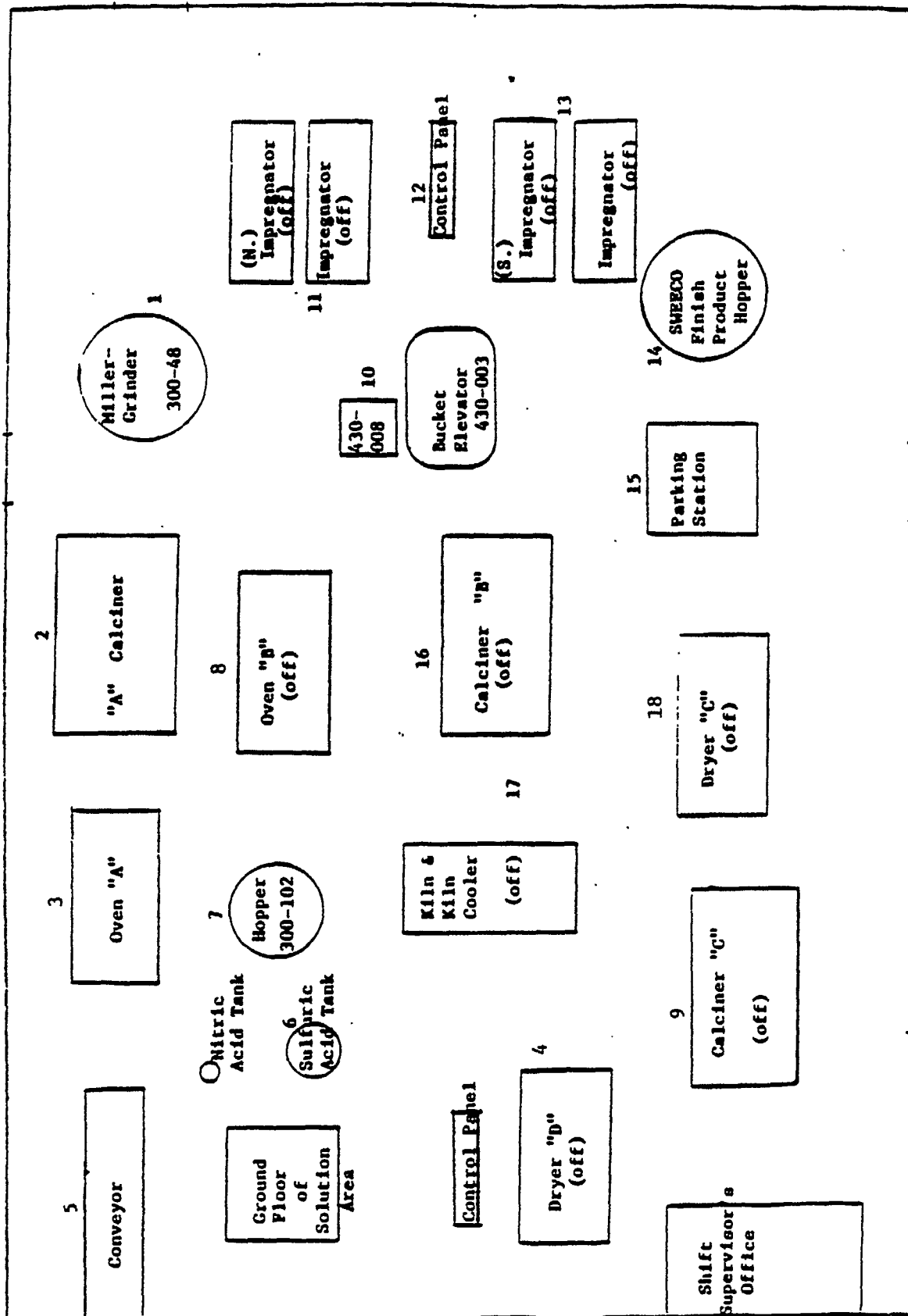


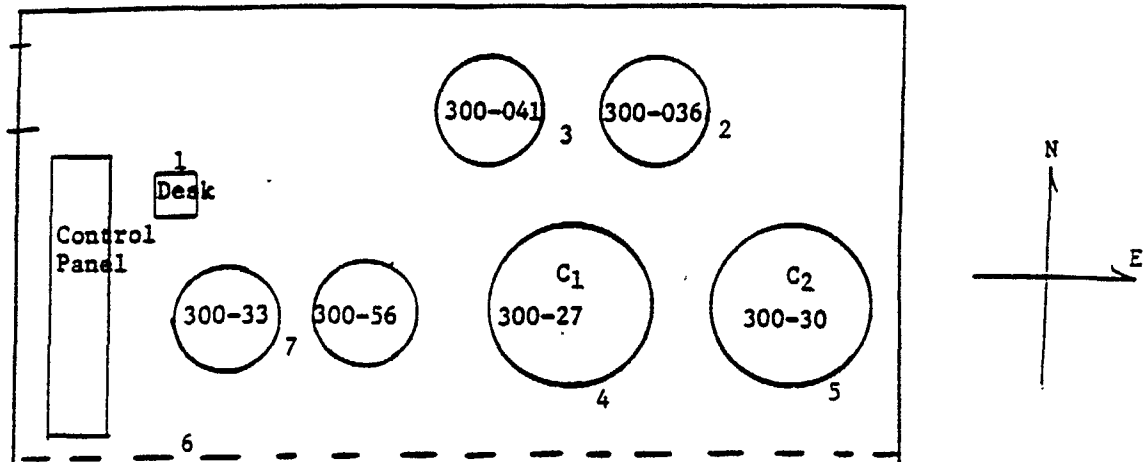
TABLE A-1 (continued)

Results of Area Noise Survey
Calciner Area, Azusa Plant

February 27, 1985

<u>Location</u>	<u>dBA Level (slow response)</u>
1. Grinder Area (off)	87
2. "A" Calciner	85
3. Oven "A"	85
4. Dryer "D" (off)	79.5
5. Conveyor from Extruders	87.5
6. Sulfuric Acid Tank	87
7. Hopper (300-102)	85
8. West Side of Oven "B" (off)	85
9. Calciner "C" (off)	76.5
10. Bucket Elevator (430-003 and 008)	86.5
11. Between Northside Impregnators (off)	86
12. In front of Control Panel	86.5
13. Between Southside Impregnators (off)	87
14. SWEECO Finish Product Hopper	84
15. Packing Station	83
16. Calciner "B" (off)	82
17. Between Calciner "B" and Kiln Cooler	81.5
18. Dryer "C" (off)	81

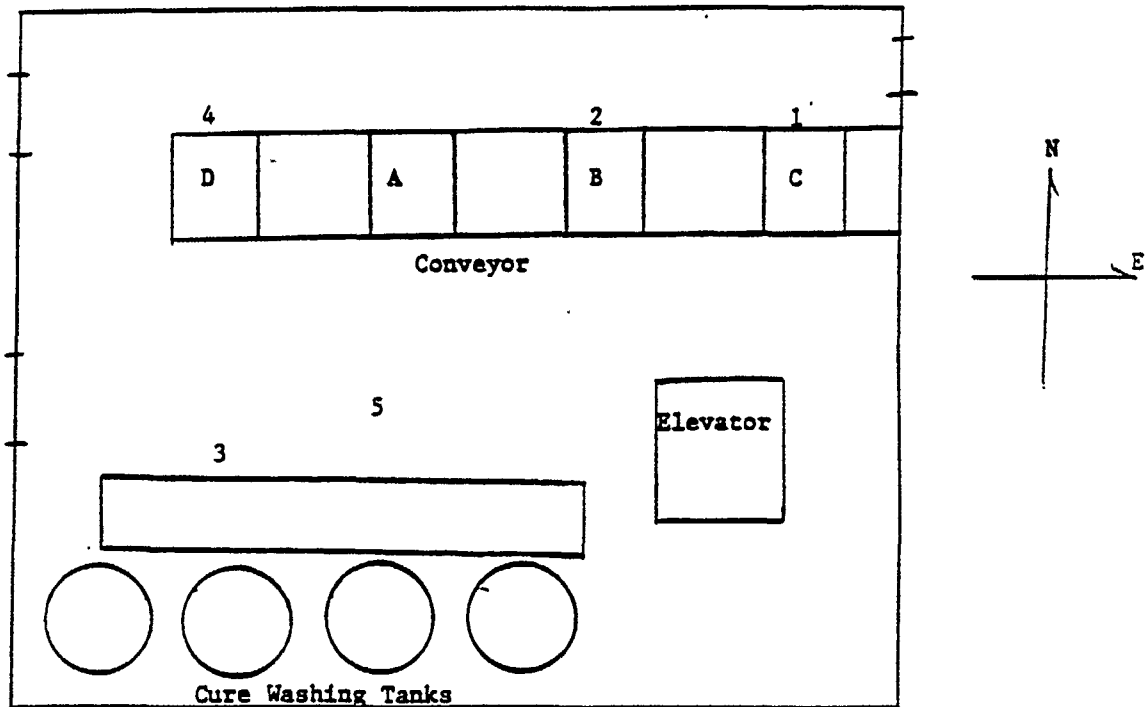
TABLE A-2
Results of Area Noise Survey
Metal Solution Platform
Azusa Plant
February 27, 1985



<u>Location</u>	<u>dBA Level (slow response)</u>
1. Next to Desk	86
2. East Side of Tank 300-036	89
3. Between Nitric Acid Tanks Under Attic Fan	94
4. South Side of Cobalt Nitrate Tank (300-27)	89.5
5. South Side of Cobalt Nitrate Tank (300-30)	87
6. Southwest Corner	85.5
7. Between Moly Tanks	89

TABLE A-3
Results of Area Noise Survey
Extruder Area (First Floor)
Azusa Plant

February 27, 1985

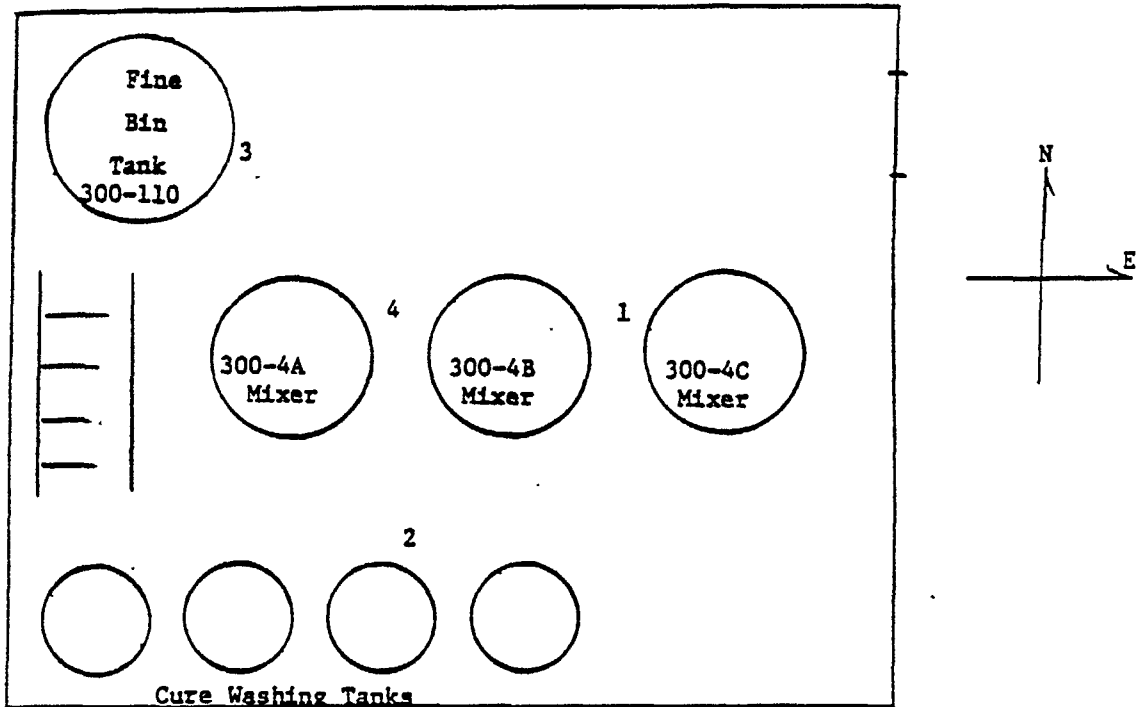


<u>Location</u>	<u>dBA Level (slow response)</u>
1. In front of Extruder "C" (on)	89
2. ditto "B" (off)	87.5
3. Cure Washing Tanks (off)	85
4. ditto "D" (on)	89
5. Center of the Area	87

TABLE A-4

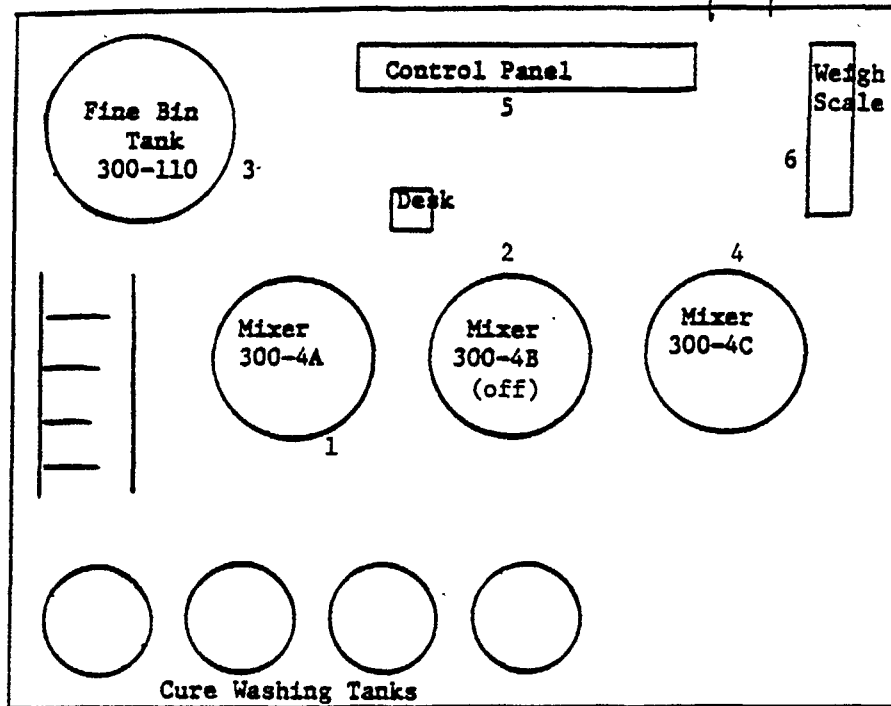
Results of Area Noise Survey
Muller Area, Second Floor

Azusa Plant
February 27, 1985



<u>Location</u>	<u>dBA Level (slow response)</u>
1. Between Mixer B&C	85
2. Cure Washing Tank Area	84
3. Next to Fine Bin Tank	85
4. Between Mixer A & B	86

TABLE A-5
Results of Area Noise Survey
Muller Area, Third Floor
Azusa Plant
February 27, 1985



<u>Location</u>	<u>dBA Level (slow response)</u>
1. At Mixer A (operating)	86
2. At Mixer B (off)	83
3. Next to Fine Bin Tank (300-110)	85
4. At Mixer C (operating)	85
5. In front of Control Panel	85.5
6. Weigh Scale	84

TABLE C-1

RESULTS OF DUSTS, METALS SAMPLING
IN AZUSA PLANT

Name	Job	Date	Time	Flow Rate (l/m)	Avr. Vol. (l)	8 Hour TWA Exposure (mg/M ³)			
						Total Dust (PEL-10)	AL ₂ O ₃ (PEL-10)	Mo (PEL-5)	Co (PEL-0.05)
Bob Lewis	Impregnator Opr. (Doing Grinding)	8/24/82	0854-1530 (396 Min.)	1.8	713	1.4	0.9	0.04	0.02
		8/25/82	0930-1540 (370 Min.)	1.86	688	0.4	0.1	0.003	0.001
Kenneth Smith	Solution Opr.	8/24/82	0915-1536 (381 Min.)	2	762	0.5	0.3	0.02	0.005
		8/25/82	0900-1542 (402 Min.)	1.8	724	2.5	0.8	0.12	0.02
Joe Porres	Kiln Opr.	8/24/82	0846-1526 (400 Min.)	1.7	680	0.38	0.26	0.01	0.004
		8/25/82	0853-1521 (388 Min.)	1.8	698	0.35	0.17	0.008	0.004

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TABLE B1
RESULTS OF DUSTS AND METALS SAMPLING
IN THE AZUSA PLANT

Process - 1443B (w/o Catapal)

Name/S.S. No.	Job	Date	Time	Flow Rate	Air Volume (l)	Total Dust (PEL = 10 mg/M3)		Lithium (PEL = 0.025 mg/M3)		Nickel (PEL = 0.1 mg/M3)	
						Results (mcg)	TWA exposure (mg/M3)	Results (mcg)	TWA Exposure (mg/M3)	Results (mcg)	TWA Exposure (mg/M3)
Jeff Smith	Impregnator Opr.	2/27/85	0807-1533 (446 min.)	1.02	453.5	420	0.926	0.03	0.00007	0.98	0.002
		2/28/85	0758-1546 (472 min.)	1.01	476.7	290	0.608	0.03	0.00006	2.36	0.005
n Smith	Solution Operator	2/27/85	0820-0937* (77 min.)	1.04	80.0	70	(0.874)**	0.04	(0.00050)**	0.50	(0.006)**
		2/28/85	0805-1540 (455 min.)	1.02	464.6	900	1.937	0.04	0.00009	12.64	0.027
ter Herrera	Muller Opr.**	2/27/85	0834-1502 (388 min.)	1.02	395.8	820	2.072	0.03	0.00008	1.86	0.005
		2/28/85	0810-1550 (440 min.)	1.02	476.3	540	1.134	0.04	0.00008	3.10	0.007
ng Yu	Extruder Opr.	2/27/85	0835-1536 (421 min.)	1.01	427.1	1280	2.996	0.005	0.00012	10.50	0.025
		2/28/85	0821-1543 (442 min.)	1.04	463.8	260	0.561	0.03	0.00006	2.94	0.006
rray Smith	Kiln Opr.	2/27/85	0812-1009* (117 min.)	1.02	119.3	20	(0.168)**	0.03	(0.00025)**	0.50	(0.004)**
Soriano	Kiln Opr.	2/28/85	0757-1145+ (168 min.)	1.02	232.6	360	(1.548)**	0.03	(0.00013)**	5.09	(0.022)**

Pump quit
half day exposure
quit for the day

TABLE A5
RESULTS OF PERSONAL NOISE EXPOSURE
AT AZUSA PLANT

Employee No.	Date	Job	Time	Direct % Readout	Process - 1443B (w/o Catapal)		
					8-Hr. TWA % Readout	8-Hr. TWA dBA	Exceeded 115 dBA
Off Smith 70-68-6031)	2/27/85	Impregnator Opr.	0807-1533 (446 min.)	26	28.0	80.8	No
	2/28/85	Impregnator Opr.	0758-1546	43	44.1	84.1	Yes
n Smith 46-17-1109)	2/27/85	Solution Operator	0820-1532 (432 min.)	74	82.2	88.6	Yes
	2/28/85	Solution Operator	0805-1540 (455 min.)	37	39.0	83.2	No
t Gustin 37-40-6117)	2/27/85	Superintendent	0826-1545 (439 min.)	47	51.4	85.2	No
rrey Smith 50-74-8588)	2/27/85	Calciner Opr.	0812-1531 (439 min.)	52	56.9	85.9	Yes
Soriano	2/28/85	Kiln Opr.	0757-1145* (228 min.)	32	(32)	(81.8)	Yes
ng Yu	2/27/85	Extruder Opr.	0838-1536 (418 min.)	8	9.2	72.8	No
	2/28/85	Extruder Opr.	0821-1543 (446 min.)	65	70.6	87.5	No
ter Herrera	2/28/85	Muller Opr.**	0810-1550 (460 min.)	46	48	84.7	No

*Quit for the day (half day exposure)
**Muller was off for that day

TABLE B2
RESULTS OF NITROGEN DIOXIDE SAMPLING*
IN THE AZUSA PLANT

CYPEL = 5 PPM TWA
Process = 1443B (w/o Carapal)

<u>Name/S.S. No.</u>	<u>Job</u>	<u>Date</u>	<u>Time</u>	<u>Results (mcg)</u>	<u>TWA exposure (ppm)</u>
Murray Smith	Kiln Opr.	2/27/85	0812-1531 (439 min.)	0.12	0.003
Ken Smith	Solution Operator	2/27/85	0820-1532 (432 min.)	< 0.1	< 0.002
		2/28/85	0805-1540 (455 min.)	0.13	0.003
Art Gustin	Superintendent	2/27/85	0826-1545 (439 min.)	< 0.1	< 0.002
		2/28/85	0751-1609 (498 min.)	< 0.1	< 0.002
Al Soriano	Kiln Opr.	2/28/85	0757-1145**	< 0.1	< 0.004

*By using palmers tube method

**Half day exposure - (quit for the day)

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