

To: C. W. Lawrence

July 3, 1991

Location: Azusa

cc: J. C. Caporossi-W3

J. A. Marin-AZ

From: N. D. Yin

J. B. Plummer-HC

Location: Wayne

Subject: Annual Industrial Hygiene Survey-Azusa.

Annual Industrial Hygiene Survey was conducted at Azusa. Other than the completion of identifying Asbestos at the old resin plant (my memo to A. C. Marek on 5/29/91), 30 air samples were collected during this survey, to determine employees' exposure to 7 substances. In addition, noise level was monitored at affected areas, capture velocity was measured for lab hoods.

Based on the analytical results, employees' exposures to Nuisance dust, Aluminum, Molybdenum, Nickel, Mercury, Nitrogen Dioxide and noise were all below its individual OSHA PELs (Permissible Exposure Limits). Exposure information are contained in table 1, 2, 3 and 6. Significant improvement was observed on the lab hoods and plant noise levels in such, the capture velocity for all 5 lab hoods are now meeting the Cyanamid requirement of 80 FPM (Corporate IH Standard No. 4) and the noise level for the major emission sources are reduced to below 90 dBA. However, there is one area; at the east end of Calciner 300-15A, still has noise at the borderline of 90 dBA. The improvement, comparing with the previous measurements showed in the table 4 and 5, indicated the concern of the plant management for employee health and is highly commendable.



Nick Yin

Table 1

Dust and Metals exposure measured at Azusa

(product: HDS1443)

Name/SS no.	Job title	date	pump flow rate(L/M)	time		TWA* Exposures(mg/M3)			
				on	off	dust	Al	Mo	Ni
Sergio Jauregui (561-57-7568)	Kiln opr.	5/7/91	1.03	0822	1527	0.85	0.14	0.03	0.01
Juan Gutierrez (569-87-6446)	Extruder opr.	5/7/91	1.136	0830	1532	0.75	0.19	0.03	0.01
		5/8/91**	1.136	0850	1350	0.87	0.09	0.01	<0.01
		5/9/91	1.136	0815	1530	0.20	0.05	0.01	<0.01
Sonya Bright (572-43-6373)	Muller opr.	5/7/91	1.042	0835	1535	2.70	1.44	0.01	<0.01
Fred Applegate (316-24-4440)	Soln. opr.	5/7/91	1.046	0840	1531	0.30	0.08	<0.01	<0.01
S. Isaac (551-49-6310)	Kiln. opr.	5/8/91**	1.03	0808	1533	0.63	0.17	0.03	0.01
		5/9/91	1.03	0811	1534	1.01	0.07	<0.01	<0.01
Noel Deocampo	Extruder opr.	5/8/91**	1.042	0855	1533	0.97	0.28	<0.01	<0.01
		5/9/91	1.042	0820	1527	0.41	0.09	0.01	<0.01
Frank Delgado (572-58-7715)	Shift super.	5/8/91**	1.046	0915	1540	0.12	0.04	<0.01	<0.01
Genaro Alvarado	Muller opr.	5/9/91	1.046	0825	1525	2.19	0.08	0.01	<0.01

*OSHA PELs for Nuisance dusts, total particulates: 15 mg/M3 TWA,
 Aluminum, soluble salts, as Al: 2 mg/M3 TWA,
 Molybdenum, soluble compounds, as Mo: 5 mg/M3 TWA,
 Nickel, soluble compounds, as Ni: 0.1 mg/M3 TWA.

**Operation down on 5/8/91, most operators involved cleaning works.

Table 2

Mercury exposure measured at Azusa
(product: HDS1443)

Name/SS no.	Job title	date	pump flow rate(L/M)	time on	time off	Hg TWA* Exposures(mg/M3)
Marylyn Figueroa (554-33-5877)	Lab tech.	5/7/91	0.199	0816	1526	0.0013
Esperanza Reveche (550-43-0158)	Lab tech.	5/8/91	0.199	0850	1532	0.0010
		5/9/91	0.199	0807	1535	0.0005
Area, on the bench top next to #5 Hg hood.		5/7/91	0.197	0816	1526	0.0025
Area, between PSD instruments.		5/8/91	0.197	0805	1532	0.0007
Area, next to presser for panetrometer.		5/9/91	0.197	0807	1535	<0.0001

*OSHA PEL for Mercury ,all forms except alkyl vapor, as Hg: 0.05 mg/M3 TWA.

Table 3

Nitrogen dioxide exposure measured at Azusa
(product: HDS1443)

Name/SS no.	Job title	date	time		NO2 TWA* Exposures (PPM)
			on	off	
Frank Delgado (572-58-7715)	- Shift	5/7/91	0816	1545	0.12
	Super.	5/8/91	0915	1540	<0.10
Sergio Jauregui (561-57-7568)	Kiln	5/7/91	0822	1527	0.11
	opr.				
Fred Applegate (316-24-4440)	Soln.	5/7/91	0840	1531	0.12
	opr.				
S. Isaac (551-49-6310)	Kiln	5/8/91	0808	1533	<0.10
	opr.	5/9/91	0811	1534	<0.10
Juan Gutierrez (552-80-3568)	Soln.	5/8/91	0850	1545	<0.10
	opr.	5/9/91	0815	1530	<0.10
Noel Deocampo	Extruder	5/9/91	0820	1527	<0.10
	opr.				
Genaro Alvarado	Muller	5/9/91	0825	1525	<0.10
	opr.				

*OSHA PEL for Nitrogen Dioxide: 1 PPM STEL.

ACGIH TLV for Nitrogen Dioxide: 3 PPM TWA
5 PPM STEL.

Table 4

Capture velocity measured at Azusa laboratory.

5/8/91

<u>Hood No.</u>	<u>Size</u>	<u>Sash position</u>	<u>Capture velocity measured (FPM)*</u>	
			<u>Current</u>	<u>Before</u>
1.	- 5.3'x2.5'	full open	118	
		1' open	152	< 50(11/15/90)
2.	8'x3'	full open	142	
		1' open	228	< 50(11/15/90)
3.	2.5'x3'	Slot hood	slots 177, 183, 150	
4.	3.3'x2.3'	full open	91	< 50(11/15/91)
5.	2'x2'	full open	123	< 50(11/15/90)

*Minimum Capture velocity for an existing laboratory hood is 80 FPM as required by Cyanamid Corporate IH Standard No. 4.

on 5/9/91

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Table 6

Personal noise exposure measured at Azusa
(product: HDS1443)

<u>Name/SS no.</u>	<u>Job title</u>	<u>date</u>	<u>time</u>		<u>Noise TWA*</u>		<u>Exceeded</u>
			<u>on</u>	<u>off</u>	<u>Exposures</u>	<u>115 dBA</u>	
					<u>%</u>	<u>dBA</u>	
Sergio Jauregui (561-57-7568)	Kiln opr.	5/7/91	0822	1527	11.6	75.4	no
S. Isaac (551-49-6310)	Kiln opr.	5/8/91	0808	1533	17	77.9	no

*OSHA PEL for Noise: 90 dBA TWA.