

12/12/90

To: C. Lawrence
Location: Azusa
From: N. Yin
Location: Wyane

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Subject: Industrial Hygiene Survey-Azusa.

An Industrial Hygiene Survey was provided to Azusa on 11/14 to 11/16/90. During this survey, 31 air samples were collected to determine employees' exposure to 7 substances. In addition, the plantwide noise level was measured and air flow measurements were taken for lab hoods. Other than air sample results which will be provided by the Stamford Industrial Hygiene Laboratory by 12/21/90, the survey findings and recommendation for improvements are contained in this report. Upon receiving lab results, I will submit an exposure evaluation report to you.

1. Noise.

The plantwide noise level was measured (Attachment 1) and found two areas:

-SOM mill area

-east end of Calciner 300-15A

its area noise level was exceeded 90 dBA. SOM mill has been enclosed by the sound absorbent material. However, due to the joints was not sealed and the absorbent material on the north wall was missing, noise levels were not totally confined and measured up to 92.5 dBA. The motor of Calciner 300-15A generates noise at 91.2 dBA. A total of 4 personal noise exposures were measured they are all below the OSHA PEL of 90 dBA (Attachment 2). On 10/16 Mr. David Perez, the Impregnation operator, received a noise level of 85.7 dBA which is over the OSHA Action Level of 85 dBA. Due to the special assignments he had (collecting waste, cleaning oven, helping in kiln area), this may not be represented as his true exposure.

Currently, the Audiometric test is being performed by The Foothill Clinic, yet, the test results have not been evaluated to determine the employees' hearing impairment.

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Recommendations.

- A. Provide adequate seal on joints and apply noise absorbent material on the north wall of SOM mill enclosure. This should reduce the area noise level to below 90 dBA.
- B. Conduct a maintenance survey on the motor of Calciner 300-15A to determine and repair any defective parts (ball bearing, fan belt, machine lubrication, etc.) If the noise still can not be reduced after the survey, install an enclosure, similar to the one on SOM mill, to minimize

the noise emission.

- C. Conduct a follow-up noise monitoring on Mr. Perez when he returns to his normal duty. If the follow-up result showed that his noise exposure is still above 85 dBA, enroll him into the OSHA Hearing Conservation Program. In such, the annual audiometric test and annual noise training must be provided to him and the proper hearing protective equipment must be made available to him.
- D. Request the Foothill Clinic to evaluate audiometric test results to determine the possible hearing loss cases. If a hearing loss case is identified, complete the follow-up procedures which is specified in the CAL-OSHA Occupational Noise Exposure Standard.

2. Hazard Communication Program.

Azusa has developed an effective Hazard Communication Program, however, the visitor safety instruction program required by the Cyanamid Chemicals Group has not been implemented. NTP (National Toxicology Program) listed both Nickel Oxide and Nickel Carbonate as a carcinogen, therefore, cancer warning signs must be posted on its containers based on the OSHA Hazard Communication requirement. In the warehouse all Nickel Oxide and Nickel Carbonate containers are properly labeled except some. About 100 boxes of Nickel Oxide and Nickel Carbonate, made by Outokumpu Company, Finland, do not carry the cancer warning sign.

Recommendations.

- E. Implement the visitor safety instruction program which consists of the Safety, Hazard Communication, Emergency Response information, major chemical storage areas and plant map. A sample of this program is listed in the Chemicals Group Hazard Communication Program.
- F. Notify the Purchasing Dept. on the requirement of cancer warning sign on Nickel Oxide and Nickel Carbonate so that it will be incorporated into the contract for the future purchasing. Notify Azusa Receiving Dept. not to receive any incoming chemicals without having proper warning labels on the container. Place cancer warning signs on Outokumpu's products. Since these chemicals have been received by Azusa, therefore it is Azusa's responsibility to properly label them.

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3. Asbestos.

Three area asbestos samples have been taken to complete the air monitoring requirement of the Chemicals Asbestos Standard. However, Azusa has not yet posted the caution

signs on the materials identified containing Asbestos.

Recommendation.

G. Post caution signs on Asbestos materials as stated in the Cyanamid Corporate Industrial Hygiene Standard No. 9, section 4.1.

4. Ventilation System-Laboratory Hoods.

Five chemical hoods in the laboratory their capture velocities have been measured and found not meeting the requirement. All measurements (Attachment 3) indicated that with the sash fully open, the air flow through the opening area were below 50 FPM. The minimum air flow required by the Cyanamid Industrial Hygiene Standard No. 4 is 80 FPM.

Recommendation.

H. Upgrade and balance the laboratory ventilation system so that each chemical hood will withdraw a minimum of 80 FPM air as its capture velocity.

If you have any questions, please feel free to contact me at extension 2708, Wayne.



Nick Yin

Attachment 1.

Area noise levels measured at Azusa
on 11/15/90.
(Equipment used: Du Pont Mark II, A scale)

<u>Locations</u>	<u>Noise Levels (dBA Slow)</u>
1. SOM mill	
-east side	91.2
-north side	90.8
-west side	92.5
-south side, with half panel open.	90.3
2. Calciner 300-15A	
-east end	91.2
-middle section, south side	87.0
north side	86.5
-west end	86.0
3. Oven "A"	
-east end	86.2
-middle section, south side	85.0
north side	83.5
-west end	82.7
4. Ground floor under metal solution	82.6
5. Between "B" calciner and "B" oven	86.3
6. Under "B" hopper	89.5
7. Under "B" impregnator (off)	86.0
8. At kiln operator's desk area	85.1
9. Kiln control panel area	84.4
10. Next to Fine product hopper	85.5
11. Product loading area	83.9
12. Metal solution mezzanine area	
-south entrance	86.3
-operator's desk	84.2
-Moly tank 300-56	85.9
-next to tank 300-33	84.3
-next to tank 300-27	86.2
-next to tank 300-30	84.5
-next to tank 300-36	86.5

Attachment 1, cont.

-next to tank 300-41	86.7
-weigh hopper 250 007	83.0
-east end of plateform	82.5
-west entrance	83.0
13. Grinding area, 2nd floor	83.0-84.5
14. Muller area, 3rd floor	
-north of "A" muller 300-4A (on)	87.0
-south of "A" muller (on)	84.5
-operator's desk	85.8
-north of "B" muller (off)	83.5
-south of "C" muller (on)	84.5
-north of "C" muller (on)	85.2
15. Extruder area, ground floor	
-north of "A" extruder (on)	87.1
-south of "A" extruder (on)	84.1
-north of "B" extruder (off)	82.3
-south of "B" extruder (off)	84.0
-north of "C" extruder (off)	80.5
-south of "C" extruder (off)	82.2
-operator's desk	82.5
16. Between "D" dryer and "D" kiln, under the attic fan	87.2

Attachment 2

Personal noise exposures measured at Azusa
on 11/14 to 11/16/90.

<u>DATE</u>	<u>Name/S.S.No.</u>	<u>Job/product</u>	<u>Time</u>		<u>TWA exposures</u>		<u>>115</u>
			<u>on</u>	<u>off</u>	<u>%</u>	<u>dBA</u>	<u>dBA</u>
10/14/90	Jose Manuel Aguilera (551-23-8128)	Solution opr. (1442B)	0834	1550	28.7	83.1	no
10/14/90	Noel Deocambo (553-81-9505)	Kiln opr. (1442B)	0844	1544	22.2	80.1	no
10/16/90	David Perez	Impregnator opr. (1442B)	0804	1538	52.1	85.7	no
10/16/90	Ryan Frazier (252-45-1347)	Muller opr. (1442B)	0813	1528	38.8	83.9	no

Attachment 3

Capture velocity measured at Azusa laboratory.

<u>Hood No.</u>	<u>Size</u>	<u>Sash position</u>	<u>Velocity measured (FPM)</u>
1.	5.3'x2.5'	4" opening 1' opening	170 < 50
2.	8'x3'	1' opening	< 50
3.	2.5'x3'	Slot hood	< 50
4.	3.3'x2.3'	1' opening Full open	110 < 50
5.	2'x2'	1' opening Full open	150 < 50

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