

4TH QUARTER, 1984
INDUSTRIAL HYGIENE - S. W. ELLIS

I. "J" Unit

a. Asbestos Removal

Work continues on replacing all asbestos insulation with non-asbestos insulation. Removal and replacement has been completed in Pumping and Purification buildings, Compression building, Tank Farm, Blending building and Catalyst Preparation building and at the flare tower.

b. Shutdown Monitoring

Eleven areas in "J" Unit were monitored for Hydrocarbons and Carbon Monoxide prior to vessel entry work during the 1984 annual shutdown. All results were 0 ppm.

c. Additive System Ventilation

Semi-annual monitoring was done on the additive mix tank ventilation system. Air velocity results were below the minimum acceptable velocity of 1680 fpm on two of three vents. A program has been initiated to bring the velocity above the minimum.

Carbon tube monitoring for Hydrocarbon exposure while mixing AO-6 results were 0.28 ppm 8 hr TWA, well below the TLV.

d. Ethylene Compressor Motor-noise Reduction

The 1250 H.P. ethylene compressor motor was replaced with a 2000 H.P. motor during the annual shutdown. Noise measurements indicate a significant reduction in noise levels. Results were from 87 to 91 dBA which is still above the 87 dBA maximum.

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DUP 0814505

DU 009863

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II. "F" Unit

a. Auxiliary Air Compressors

Two auxiliary air compressors have been installed at "F" Unit. 87 dBA noise contour lines have been established. They extend 8 ft. to the North of the foundation and 2 ft. to the East.

b. Low Pressure Separator Stripping

The unit was shut down while producing an 8.9% vinyl acetate copolymer. Monitoring for vinyl acetate exposure while hot stripping indicated a maximum of 0.5 ppm 8 hr. TWA. The TLV is 10 ppm 8 hr. TWA.

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III. Alathon® Mechanical

a. Bldg. 582 Shop, Dip-Seal Vat

A COD to install a vent hood over the dip-seal vat was completed. The average air velocity was 77 FPM. The minimum is 60 FPM.

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IV. Alathon® Lab

a. Plant Ambulance

The Alathon® Laboratory has the responsibility of operation and maintenance of the plant ambulance. An article in Science News Volume 126, made the 550 Lab aware of possible exposure to Carbon Monoxide. The Du Pont Acceptable Exposure Limit for Carbon Monoxide is 50 ppm-8 hr. Time Weighted Average, and 25 ppm-12 hr. Time Weighted Average. The American Conference of Governmental Industrial Hygienists calls for a Short Term Exposure Limit of 400 ppm.

Last week a new exhaust system was installed on the Ambulance. The 550 Lab ambulance crew drives the vehicle off-plant on a weekly basis. They monitored the ambulance on Saturday, December 8, using a calibrated Drager Meter with a Carbon Monoxide 5/C Drager Tube in line. (Calibrated 12-7-84)

<u>Conditions</u>	<u>CO Check Near Stretcher</u> <u>(Back of Ambulance)</u>
Engine Idling (10 mins)	5 ppm CO
Low Speed (30-35 mph)	1 ppm CO
High Speed (50 mph)	0 ppm CO

Results show that Carbon Monoxide levels are well below TLV's. A CO check on the ambulance will be set up on Victoria Plant's computer tickler system, and levels will be checked every six months.

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V. Shops and Services

a. Waste Paint Thinner Disposal

Approximately 5000 gallons of paint thinner that had accumulated since the incinerator was shut down was burned in #7 and #8 boilers. Monitoring results indicated there was no personnel exposure.

b. Welding Fume Ventilation - Bldg. 31

The Building 31 welding fume ventilation system is complete except for installation of vent fan.

c. Welding Fume Ventilation - Bldg. 4

The Rumemelin vent system was monitored on December 20, 1984. All seventeen cones had a velocity greater than the minimum required.

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VI. Diamine - East

a. Power and Hydrogen, Noise Survey

The annual noise survey was completed on November 21, 1984.

b. HMD - HMD Monitoring

Monitoring results from several of the locations suspected to have HMD exposure were all 0 ppm.

c. D&R - Asbestos Monitoring

Asbestos removal practices continue to meet standards samples at the north perimeter fence were all less than .009 fibers/cc > 5 microns in length. The AEL is .5 fibers/cc > 5 microns in length.

SWE/kp

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DUP 0814510