

2ND QUARTER 1983

PLAINTIFF'S
EXHIBIT
DUP-1879

ALATHON DIVISION - S. W. Ellis/C. M. Beck

I. General

- a. The annual noise survey for all areas in the Alathon™ Division were completed.

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2. "J" Unit

a. Ethylene Purifiers - Dust and Hydrocarbon Monitoring

Each ethylene purifier contains 7200 lbs. of molecular sieve. There is a potential for hydrocarbon exposure while emptying and dust exposure when emptying and refilling. Dust exposure samples taken while emptying were 10.40, 6.66, 2.34 and 0.12 mg/m³ 8 hr. TWA. Dust exposure results while filling were 0.46 and 0.19 mg/m³ 8 hr. TWA. Two results were above the 8 hr. TWA TLV of 5 mg/m³ for respirable dust. Respiratory protection with a protection factor of 5X was worn. Hydrocarbon results were less than 0.01 ppm 8 hr. TWA, well below the 8 hr. TWA TLV of 50 ppm.

b. Hexane Purifiers - Dust Monitoring

Each hexane purifier contains 8250 lbs. of silica gel and 2750 lbs. of molecular sieve. There is a potential for dust exposure when emptying and refilling. Dust exposure results from samples taken while emptying were 9.76, 6.62, 2.06 and 0.91 mg/m³ 8 hr. TWA. Dust exposure results from samples taken while filling were 0.31 and 0.28 mg/m³ 8 hr. TWA. Two results were above the 8 hr. TWA TLV of 5 mg/m³ for respirable dust. Respiratory protection with a protection factor of 5X was worn.

c. Octene Purifiers - Dust Monitoring

Each octene purifier contains 5250 lbs. of silica gel and 1650 lbs. of molecular sieve. There is a potential for dust exposure when emptying and refilling. Dust exposure results from samples taken while emptying were 1.76, 0.92, 0.44 and 0.38 mg/m³ 8 hr. TWA. Dust exposure results from samples taken while filling were 0.36 and 0.17 mg/m³ 8 Hr. TWA.

All results were below the 8 hr. TWA TLV of 5 mg/m³ for respirable dust. Respiratory protection with a protection factor of 5X was worn.

d. Ethylene, Hexane and Octene Purifiers - Dust Summary

The 8 hr. TWA TLV for respirable dust is 5 mg/m³. The STEL (15 min) TLV has not been established but a STEL-TLV of 10 mg/m³ respirable dust has been recommended by J. C. Olguin of Environmental Affairs - Wilmington. The 8 hr. TWA - TLV was exceeded for respirable dust 20% of the time with the maximum of 10.4 mg/m³. The recommended STEL-TLV of 10 mg/m³ was

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2. "J" Unit (cont'd)

exceeded 78% of the time with a maximum of 415.9 mg/m³. 36.6% of the STEL's were above the 5X protection factor of respiratory protection worn. It is also necessary to wear goggles for eye protection which can contribute to poor fit of the goggles and respirator. A scott full face Model 65H twin cartridge respirator with protection factor of 50X is now required.

e. Noise Monitoring - Octave Band

Octave Band Noise analysis of the atmospheric flash tank, ethylene compressor, ethylene purge compressor, vent blowers (finishing), reaction cooling fans, sweco screeners and adjacent area were conducted. Data are being analyzed to determine proper treatment for noise control.

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3. "F" UNIT

- a. Eight Material Safety Data Sheet were prepared.
- b. Task monitoring for vinyl acetate was conducted. Four samples were obtained during hot stripping of the low pressure separators. One sample was taken during the removal of two Kobe automatic valves. All results were below 0.13 ppm 8 hr. TWA.

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4. Building 582 Shop

- a. A noise compliance plan was written. It documents the action taken to comply with OSHA requirements for the noise emitted by portable tools.

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5. Central Shop (Bldg. 4)

- o A "Reumelin" welding fume exhaust system was completed. It services eight welding stations. Face velocity measurements met all standards. Blower noise is below 87 dBA.

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Central Shops and Services - C. Beck

- Initial spray paint samples were taken in the paint booth in Building 31 using the test stand. The two samples were analyzed by 550 GC and Building 3 GC/MS. The major peaks are toluene and xylenols.
- Burning odor from milling machine in Fab Shop was found to be caused by excessive bacterial growth in cutting fluid. Control measures will include frequent fluid changes and addition of bactericide.
- Several chemicals monitored in Garage as per initial risk appraisals. Kerosene, brake fluid, and aerosol products showed no significant hydrocarbon levels for given product use. Carbon monoxide levels from vehicle exhaust were around 300 ppm (STEL is 400 ppm), but unexhausted fumes in building last no longer than ten minutes.
- Procedures for several I/H sampling methods were written for use in Alathon's I/H program.
- Confined welding fume measurements continue. A single 79 minute sample from a water softener (APH) showed an 8 hr. TWA of 14.03 mg/m³ total fume. Metal analysis showed an overexposure to iron and high manganese and tin levels. More sampling to be done on softeners.
- Personal sampling during MIG welding in Central Shops showed overexposure to total welding fumes and high levels of iron, manganese, and carbon monoxide. Local exhaust ventilation is very strongly recommended for MIG jobs.
- The welding gas study in Central Shops is nearing completion. Results to date show little problem except when TIG welding on carbon steel with Oxxwell 65 on certain welding machines (producing ozone). All machines will be checked to ascertain if the problem lies in the machine.

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