

GLYCOL I PLANT - LOUISIANA DIVISION

INDUSTRIAL HEALTH JOB ANALYSIS

DECEMBER, 1976

Produced Pursuant
to Subpoena
Re: Industrial Health Job Analysis
Case No. 1770005 (SJR)
Western District of New York

- A. A survey of airborne organic contaminants has been completed at Glycol I, Louisiana Division.

Personnel were equipped with battery operated air sampling pumps made by Sipin Co. The suction side of the pump was connected to a charcoal filled tube through which air was drawn. From the time and flow rate information, the total volume of air through the charcoal absorption tube was determined. The pumps were worn for eight hours after which the charcoal was removed and retained for analysis. Each sampler was filled with fresh charcoal, its battery recharged and used again.

The charcoal sample was poured into a bottle of chilled carbon disulfide mixed for 30 minutes. Time was allowed for all the charcoal "fines" to settle out and a sample of clear carbon disulfide was injected into a vapor phase chromatograph. Two chromatographic systems were needed.

- a. 10' x 1/8"s.s. tubing packed with porapak PS, 50/80 mesh
- b. 9' x 1/8" s.s. tubing packed with 20% Ucon 50 HB 2000 on gas chrom Z, 60/80 mesh.

Each chemical normally present was checked, as well as type of work.

There were 15 jobs studied in this survey. The average and maximum time weighted values for each job surveyed are shown on the following data sheets. The maximum threshold limit value (TLV) are recorded next to the chemical name on each sheet.

Six chemicals were tested for in our block that are toxic.

Fifty-two 8-hour samples were caught in this survey, which lasted the entire month of December.

New information included on this survey this year is a job description of each classification and pump calibration proof of performance.

Each Sipin pump was checked before and after use to determine flow rate. The instruments used to check with were a Dupont pump calibration kit or a SKC Universal pump calibrator.

B. CONCLUSIONS:

Analyzing the Glycol I block for six chemicals and fifteen jobs:

1. No one checked on survey was over the TLV on any chemical.

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2. We are 100% below the acceptable industrial health standard maximum limits.

C. A noise survey was conducted during the month of December. This survey is an area survey and not an individual exposure survey. The results are shown on the plant layout and on the data sheet. We do have some areas where the noise level exceeds the 85db limit. Warning signs are posted in these areas and personal ear protection is provided for use.

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