



The Industrial Commission
Of Ohio
Division Of Safety & Hygiene
246 N. High St., Col. O. 43215

June 13, 1983

Industrial Commission of Ohio
Legal Section
246 North High Street
Columbus, Ohio 43215

Attn: Judy Spencer

RE: O.D. 20022-22
Florence Podralski
Packard Electric Division
Warren, Ohio 44486

Dear Ms. Spencer:

On April 25 and May 4, 1983, visits were made to the Hubbard Plant of the Packard Electric Division for the purpose of determining conditions under which the above named claimant has been employed. The claimant alleges that her condition, which was diagnosed on October 29, 1982, as acute rhinitis and acute sinusitis, was caused by the inhalation of lacquer thinner vapors. Specifically the claimant, who is an electric forklift truck operator, states that she became ill on October 26, 1982, when she drove her forklift truck into the loading dock area, while a maintenance painter shook excess lacquer thinner from two paint brushes into a trash dumpster which is normally positioned at the loading dock.

The painter, on May 4, 1983, stated to this writer that he had soaked the brushes overnight in approximately one-half pint of lacquer solvent No. 1502 and in preparing to start work on the morning of October 26, shook the excess thinner from the brushes. Although the claimant states that the painter also threw the excess solvent into the trash dumpster, he denies that he has ever disposed of waste solvent in this manner. Instead, he states that he disposes of waste solvent in a covered 55 gallon drum which has been designated by management for that purpose. Management states that, when the waste solvent drum is filled, it is disposed of according to EPA approved procedures.

From the OSHA material safety data sheet, provided by the supplier of the lacquer thinner (1502), the following ingredients are identified in the make-up of this material:

Toluene	60%
Isopropyl Acetate	10%
Isobutyl Acetate	20%
Butyl Alcohol	10%

During the visit of May 4, the painter was asked to duplicate his actions, in cleaning the brushes, prior to monitoring the air in the dock area for solvent vapors. Immediately following the shaking of the excess solvent into the dumpster, 30 minute air samples were taken in the area, with the use of personal sampling pumps and charcoal adsorption tubes. One hour after the brushes were cleaned, a second set of 30 minute air samples were obtained. The laboratory reports that the concentrations of solvents in question were, in each case, less than 1.0 ppm, the lower detectable limit for an air sample of this size. It should be noted that all outside overhead doors to the loading dock remained closed until after the completion of the first 30 minute sample. During the period between samples, the side overhead door was open for approximately two minutes. During the rest of the sampling all doors remained closed.

The symptoms, as described by the claimant, could be experienced by a worker if concentrations reached or surpassed the Threshold Limit Values which have been adopted by the American Conference of Governmental Industrial Hygienists (ACGIH) for the substances listed as being present on the safety data sheet. However, after viewing the size of the dock area (approximately 70,000 cubic feet), learning of the small volume of solvent involved, and reviewing the results of monitoring, it is doubtful that the claimant's symptoms could be related to the brush cleaning, as she alleges.

Certain chemicals are recognized as sensitizing agents, materials which after an initial exposure to an allergic individual will result in an immune response or allergic reaction following any subsequent contact, no matter how small. In reviewing available references, including several OSHA and NIOSH publications and Patty's Industrial Hygiene and Toxicology, no reference could be located which identifies any of the ingredients of the lacquer thinner as being sensitizing agents.

Threshold Limit Values refer to concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse

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effect. Because of a wide variation in individual susceptibility, however, a small percentage of workers may experience discomfort from some substances at concentrations at or below the Threshold Limit. A smaller percentage may be affected more seriously by aggravation of a pre-existing condition or by development of an occupational disease,

Sincerely yours,

Donald B. Meeker

Donald B. Meeker
Industrial Hygienist

DBM:ceg