

Case 154. 57-year-old tub re-glazer died from arteriosclerotic and hypertensive heart disease with a contributory cause of methylene chloride poisoning while stripping a bathtub.

A 57-year-old male tub re-glazer died from arteriosclerotic and hypertensive heart disease with a contributory cause of methylene chloride poisoning while stripping a bathtub. The bathroom did not have windows and the bathroom door was closed. The police report indicated that the ventilation fan for the bathroom was operating. The decedent was found laying halfway into the bathtub, face down and not breathing. The decedent was wearing a tight-fitting, half-facepiece air-purifying respirator equipped with organic vapor/acid gas cartridges. Two cans of an aerosol chemical stripping agent were found on site. Blood methylene chloride concentration was 100 micrograms per milliliter (mcg/ml). A reference on the analysis sheet, which was excerpted from “Baslet Disposition of Toxic Drugs and Chemicals in Man” (both 5th and 7th editions) indicated that “Exposure to 200 ppm (TLV) in air for two hours produced up to 2.0 mcg/ml blood”. The MSDS for the stripper used by the decedent indicated that the product contained 85-90% methylene chloride.

MIOSHA Construction Safety and Health Division issued the following Serious and Regulatory citations to the employer at the conclusion of their investigation:

SERIOUS:

METHYLENE CHLORIDE, PART 313, 1910.1052(d)(2).

The employer did not conduct an initial exposure determination for each affected employee who maybe exposed to methylene chloride during bath tub-refinishing operations involving the use of a methylene chloride containing chemical stripping agent (i.e. Klean-Strip premium stripper).

SERIOUS:

METHYLENE CHLORIDE, PART 313, 1910.1052(e)(3).

The employer did not provide appropriate respiratory protection that was selected in accordance with paragraph (g)(3) of the standard to an employee whose exposure could be reasonably be expected to exceed either the 8-hour time weighted average (TWA) permissible exposure (PEL) or 15-minute short term exposure (STEL) limits while working in a regulated area. Personnel, including the decedent, were provided and utilized inappropriate respiratory protection (i.e. half-face, negative pressure air-purifying respirators equipped with organic vapor/acid gas cartridges) while working in regulated work areas (i.e. bathrooms where exposures could be reasonably expected to exceed either the 8-hour TWA PEL or 15-minute STEL).

SERIOUS:

METHYLENE CHLORIDE, PART 313, 1910.1052(g)(2)(i).

The employer did not implement a respiratory protection program in accordance with 29 CFR 1910.134(b) through (m) except (d)(1)(iii).

SERIOUS:

METHYLENE CHLORIDE, PART 313, 1910.1052(h)(1).

The employer failed to ensure that each affected employee was provided with and utilized appropriate eye and hand protection to prevent methylene chloride induced eye and skin irritation during bath tub-refinishing operations involving the use of a methylene chloride containing chemical stripping agent.

SERIOUS:

METHYLENE CHLORIDE, PART 313, 1910.1052(l)(1).

The employer did not provide information and training for each affected employee prior to or at the time of initial assignment to a job involving potential exposure to methylene chloride.

SERIOUS:

HAZARD COMMUNICATION, PART 430. 1910.1200(e)(1).

The employer did not develop, implement, and maintain a hazard communication program as described in 29 CFR 1910.1200 (e),(f),(g) and (h) and MCL 408.1014c, g, and k of Act 154.

REGULATORY:

MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ACT, ACT 154,
PUBLIC ACTS OF 1974 AS AMENDED, SEC. 61(1)

The employer did not report orally or in writing to the Department of Labor and Economic Growth within eight hours after the occurrence of an employment accident or illness which was fatal to one or more employees or resulted in the hospitalization of three or more employees.