

**PROJECT NAME:            Ventilation Design**

**PROJECT DESCRIPTION:**

The client operates a pad printing operation in one large semi-divided room. The pad printing operation is used to place designs, logos, and lettering on its consumer products. Currently, the area has three open cup pad printers. A planned expansion would increase the number of units to six. The scope of the consulting contract was to address the ergonomic, ventilation and safety issues associated with current and future operations in addition to environmental compliance issues.

We reviewed the planned expansion noting current and future ventilation, chemical handling, storage and disposal issues and needs. The review included measuring the room, calculating volume and estimating the amount of solvents released which would cause the atmosphere to reach the PEL or TLV. Estimates were made for the volume of waste solvent, wipe rags, and paper towels used in the process, and the increase in waste recycling/disposal. The proposed hoods were reviewed for appropriateness and effectiveness.

We reviewed the ventilation systems needed and designed a hood for a work table that has its own make up air source and a ventilation system for pad printing machine.

The current S-K washer was evaluated and suggestions for modifications and a replacement were made. Equipment that will reduce emissions and exposures were suggested for parts cleaning. Waste streams were established for solvent soaked trash as well as non-hazardous waste.

The atmosphere was monitored prior to, and again after ventilation and equipment changes were made.