

**Opportunities for VOC Emissions Reductions in Manufacturing  
Office Furniture Partitions**

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**ABSTRACT**

This paper evaluates volatile organic compound (VOC) emission reduction opportunities for a manufacturer of office furniture partitions using pollution prevention (P2) methodology as defined by the Ministry of the Environment (Ontario).

The purpose of this paper is to provide a VOC P2 plan for Knoll, Panels Division. The concepts discussed in this paper can be applied to the wood furniture industry in general. The baseline conditions of VOC emissions of the plant were estimated using the mass balance approach. Pollution prevention projects were identified and then screened using criteria and weighting as defined by Knoll, Toronto.

A feasibility analysis was performed for the screened projects based on technical, environmental, and economic considerations. At the time of the evaluation, the following projects were deemed to be feasible:

1. Best management practices
2. Cease painting of non-visible parts
3. Hot melt backwrapping
4. Solvent recycling
5. Mechanical clip attachment

Implementation, measurement and control plans were prepared for the projects that passed the feasibility analysis.