# OPERATIONAL METHYL BROMIDE RECAPTURE SYSTEMS

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Recapture of methyl bromide from commodity fumigations is now a proven commercial process. Great Lakes Chemical Corporation (a Chemtura company) Methyl Bromide Recapture Systems are operating in Texas (D/FW Airport) and in California (Well-Pict Berries, Watsonville). The most recent installation at Houston Intercontinental Airport, is ready to be put into service. Recapture of methyl bromide protects the ozone layer, and has the potential to substantially reduce buffer zone dimensions currently under discussion by US-EPA.

With the recapture system, test have shown that the amount of methyl bromide emitted from commodity fumigations is reduced by 80% or more, allowing fumigation facilities to meet strict local emission regulations. Furthermore, the maximum concentration of methyl bromide entering the atmosphere is reduced by 95% or more. Ground level concentrations around a fumigation facility are a direct function of exhaust stack concentrations. Buffer zones presently under discussion within US-EPA around fumigations are based on ground level concentrations. Recapture should therefore substantially reduce the size of the proposed buffer zones.

Methyl bromide recapture is accomplished by passing the initial, high concentration, ventilation stream at the end of a fumigation through activated carbon. Once the concentration in the ventstream reaches 500 ppm, or other preset limits, the remaining ventstream passes directly to the atmosphere. Because of this arrangement, there is zero effect on the fumigated commodity. Fumigations are carried out exactly as they are now, according to label conditions.

The Well-Pict installation in Watsonville is very simple: It consists of an adsorber and a suction fan which, for safety, keeps the whole system under a slight negative pressure. The Houston system is part of brand new state-of-the-art treatment facility. It has many additional features, such as redundant adsorbers, redundant blowers, continuous methyl bromide monitors, plus a data acquisition system.

Thus far, local air pollution control regulations have been the driving force that required installation of the recapture systems. If buffer zones become a reality, economic or space/location factors could become additional driving forces for the installation of the systems.