

## **PROJECT DESCRIPTION**

### **Odor Abatement System**

### **SENSIENT FLAVORS (CHAMPLAINS INDUSTRIES)**

### **Cornwall, ON**

#### PROJECT SCOPE

The project consisted in treatment of exhaust gas emissions coming from beef and chicken broth manufacture, in order to minimized complaints and odor around the plant.

Mesar / Environair was mandated to provide engineering and supply of a scrubbing system to the Sensient facility at Cornwall in Ontario.

At Cornwall plant, the waste stream to be treated comes from four process tank vents where hydrolysis is performed in a batch process. The main contaminants were ammonia and mercaptans.



The treatment system consists in one spray tower followed by a packed tower scrubber unit using diluted sulfuric acid to control ammonia emissions in the spray tower and then using caustic/hypochlorite to remove mercaptan odor in the packed tower.

Other equipment like recirculation pump, metering pump, mist eliminator and fan were supplied to insure a safe system design.

#### RESULTS

The system was installed in July 1995 as scheduled. Performance trials in following months showed that the scrubbing system consistently operates, and the plant was then avoiding complaints from residents around the plant.

The system efficiencies were 99% on  $\text{NH}_3$  and 95% on mercaptans, and the chemical demands were minimized using advanced control system.