UNITED STATES POSTAL SERVICE

Building Fumigation — Field Operations

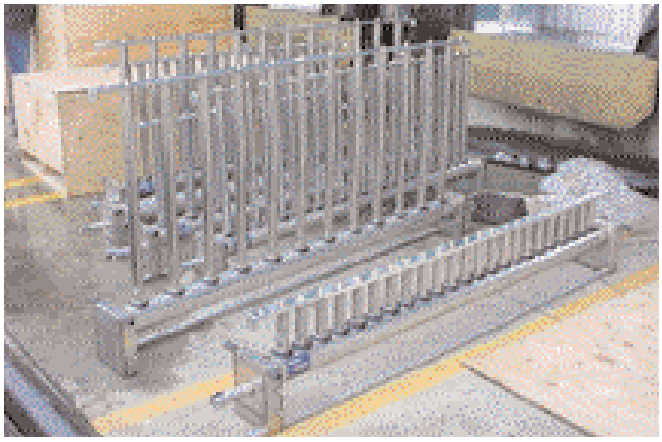
Washington DC Processing and Distribution Center Brentwood

This fact sheet is one in a series of fact sheets providing information on the anthrax decontamination activities at the Washington DC Processing and Distribution Center Brentwood.

How will the chlorine dioxide (ClO_2) gas be made and emitted into the building?

ClO_2 will be prepared onsite just prior to introduction into the Brentwood facility. The raw chemicals that are used to prepare the gas, which include sodium chlorite ($NaClO_2$), sodium hypochlorite (NaOCl), and hydrochloric acid (HCl), will be kept in secure storage containers at the site.

A custom ClO_2 generator will make a dilute liquid ClO_2 solution by mixing the raw chemicals. The liquid solution will then be pumped to emitters located inside the building. These emitters simply blow air from inside the building through the liquid solution and remove the ClO_2 gas. Unused liquid solution will be pumped back out of the building and reused. The ClO_2 gas leaving the emitters will be pulled directly into the return-air side of the building s existing air handling system, where it will then be distributed throughout most of the building. Also, a system of about 350 fans will transport the gas to stagnant areas and will mix the gas into a uniform concentration.



How will the temperature and humidity be controlled?

A computer located in the operations trailer outside the building will control the operation of the air handling units inside the building. Each air handling unit will be fitted with a steam generator so that both temperature and humidity can be precisely controlled. Sensors inside the building will relay instant real-time information to the operations trailer.

How will ClO_2 gas be neutralized within the building?

The ClO_2 gas will primarily be removed by scrubbing it from the interior air. The same emitters mentioned above will now be fed with an alkaline (high pH) liquid solution. The air inside the building will be blown through a fine spray of this alkaline solution. A chemical reaction will then occur, turning the ClO_2 into a salt and removing it from the building air. The salty water will be pumped out of the building, safely stored for disposal elsewhere at an approved waste treatment facility.

In addition to the air scrubbing, the ClO_2 gas will also degrade by itself. The building will be well ventilated with fresh air.