

VOC MONITORING NEAR THE WORLD TRADE CENTER ON SEPTEMBER 28, 2001 SUMMARY

To measure the surrounding communities' exposure to volatile organic compounds (VOCs) from the World Trade Center fires and cleanup activities, the State and City Health Departments collected air samples for some VOCs around the World Trade Center. Most of these compounds are commonly found in petroleum products or are common industrial chemicals. Some of these compounds are also produced by fires, including the World Trade Center fires, or by equipment, such as the equipment being used in the recovery effort.

Air samples were taken on September 28, 2001 at three locations around the World Trade Center site. Samples were taken at roof level and street level. They were taken in the morning, afternoon and evening. One sample was also taken in the smoke at the wreckage at the World Trade Center. The sample in the smoke plume had the highest levels of VOCs. Recovery and emergency workers need to take safety measures that have been provided to them to limit their exposure to the smoke at the site.

Samples were taken near Parc Place, Rector Place and Broadway at Liberty Streets. Upwind of the site and crosswind, levels of VOCs were about the same as those commonly found in outdoor samples (also called "background" levels). Downwind of the site, VOC levels for most of the compounds detected were higher than background.

The higher levels of VOC compounds downwind of the site are not likely to last for an extended period of time (for example, the fires will be put out and the wind direction changes). The health risks from VOCs downwind, where the levels are highest, are still not much different than they would be for typical background levels. For the VOCs that were measured, the air concentrations outside the work area are not a significant health concern. However, other chemicals from the fires or other recovery activities may be contributing to eye, nose and throat irritation.

