

Chlorine Emission Test

Our Sentry scrubbing system was tested by Entropy, Inc. on August 11th and 12th. The chlorine emissions tests were conducted in accordance with U.S. EPA Reference Method SW846 0051. This method is identical to U.S. EPA Reference Method 26. The data provided by the U.S. EPA Reference Method is substantially more accurate than provided by the EIT sensor and by Drager colorimetric indicator tubes. The preliminary results for the chlorine release tests are summarized in the table below.

Chlorine Release Conditions	Outlet Cl ₂ ppm
Peak	4.98
Sustained	0.36
Peak	6.14
Sustained	0.31

The peak concentration test was conducted during the 20 minute period of the chlorine release. Based on the chlorine evaporation rate data, we believe that this period had the maximum inlet concentration to the scrubber system.

The chlorine release rates during these peak periods were well above the 78 pounds per minute rate specified in the Uniform Fire Codes. The sustained chlorine release tests were conducted during one hour periods as the remainder of the chlorine evaporated in the release room. The purpose of these “end-of-release” tests was to evaluate the scrubber’s capability for high efficiency removal of chlorine over the entire time period of the chlorine release.

The chlorine emission concentration data indicates that the Sentry Scrubber system exceeded the performance requirements of the Uniform Fire Codes. Entropy completed quality assurance checks on the laboratory analyses and field data. There was no major changes in the chlorine emission concentration data as result of the checks.