

SUMMARY

The usefulness of a sulphur hexafluoride (SF_6) tracer gas for investigating pulp mill workplace ventilation studies was examined under severe winter conditions at two pulp and paper mills located in central B.C.

The technique was successfully used to (1) determine process area ventilation rates for different ventilation configurations and (2), to determine the maximum concentration of toxic gases which can be expected to occur within the workplace due to abnormal emission conditions (both instantaneous and continuous) and for different ventilation configurations.

It is concluded that the use of a tracer gas can be a valuable tool to detect potential inadequacies with an existing ventilation system which may result in an unsafe workplace.

The technique should be further developed to incorporate dual tracer gases for use when the background level of SF_6 is excessive. (This gas can leak from high voltage switching gear).