CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
J0906

Project Title
CO at SFO

Abstract

Objectives/Goals
The goal is to determine the carbon monoxide levels at different locations in the San Francisco airport to see if levels exceed OSHA or EPA's recommended limits.

Methods/Materials
A Senco Model One digital carbon monoxide tester is modified and used to test the carbon monoxide level at six different locations over a 28 minute time period. All samples were taken at a height of five feet.

Results
The CO level did not exceed OSHA's limits at any of the six locations. Two areas, outside the baggage claim and at the exit booth, exceeded EPA's and UK's guidelines for an extended period. The range of CO measurements did not vary much at any location except outside the baggage claim area. The carbon monoxide level was consistant at heights from 0 to 12 feet.

Conclusions/Discussion
EPA, OSHA and UK National Air Quality Strategy guidelines for CO exposure are not consistant. Since two locations at the San Francisco airport exceeded EPA and UK standards, the areas should be retested over an eight-hour period to more accurately determine the exposure. Pregnant female workers should not work in these areas. The health histories of policemen and other workers in these areas should be studied to determine if CO has affted their health or that of their babies.

Summary Statement
The levels of carbon monoxide were measured at the San Francisco airport to determine if they were dangerous to the health of workers.

Help Received
Stan Yamaichi from the Bay Area Air Quality Management District advised to test air pollution by monitoring CO, Mother drove to airport