

**Illinois Department of
Public
Health**

John R. Lumpkin, M.D., M.P.H., Director

2125 South First Street • Champaign, Illinois 61820-7499

#612059601

March 4, 1997

CHAMPAIGN COUNTY (MAHOMET) - Follow-up Indoor Air Survey

Mr. Lee Jessup, Principal
Lincoln Trail Elementary
102 E. State, Box 200
Mahomet, Illinois 61853

Dear Mr. Jessup:

A follow-up indoor air survey was conducted by Cary Ware at the Lincoln Trail Elementary January 27-31, 1997. The primary goal of the survey was to determine if recent modifications to the heating and ventilation system in the 1988 addition (Room 5F) increased the amount of outside air being supplied to the building.

The long-term sampling results detected a maximum carbon dioxide (CO₂) level of approximately 2200 parts per million (ppm) on January 28, 1997. This was the coldest day of the week which coincides with the lowest amount of outside air being supplied to the ventilation system. All other days the indoor CO₂ concentrations ranged from 1600 to 1800 ppm in occupied room 5F). The temperature averaged 71°F and the relative humidity was approximately 10% which was below the recommended guideline (between 30% and 60%).

As discussed in the initial indoor air survey, CO₂ is a normal constituent of exhaled breath. Measurements of CO₂ can be used to determine if the quantity of outdoor air that is being delivered to occupants is adequate. High concentrations of CO₂ indicate that outside air is not being adequately supplied to the building to mix with recirculated air. If indoor CO₂ concentrations are more than 1000 ppm, complaints such as headaches; fatigue; and eye, nose and throat irritations may be anticipated. The elevated CO₂ concentration itself is not responsible for the complaints; however, high CO₂ concentrations are indicative of stale, stagnant air which does contribute to occupant complaints. Although the CO₂ concentrations were lower than the concentrations measured during the initial indoor air survey, they were still elevated and could potentially contribute to occupant complaints. Therefore, additional modifications to the ventilation system may be necessary.

Please note that the results from the fungi (mold) sampling conducted on February 11 are pending.

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If you have any questions regarding the follow-up survey, please contact Cary Ware or me at our Champaign Regional Office located at 2125 South First Street, Champaign, Illinois 61820, telephone (217) 333-6914.

Very truly yours,



Mark Kuechler, P.E.
Regional Engineer

CW:kgb

cc: Champaign Regional Office^{CW}
Division of Environmental Health ✓
John Alumbaugh
