

**Illinois Department of
Public
Health**

Jim Edgar, Governor • John R. Lumpkin, M.D., M.P.H., Director

525-535 West Jefferson Street • Springfield, Illinois 62761-0001

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September 26, 1997

Dr. Glenn W. Davis, Superintendent
DeKalb Community Unit School District 428
901 S. Fourth Street
DeKalb, IL 60115

Dear Dr. Davis:

On September 24, 1997, the Illinois Department of Public Health (IDPH) investigated a mercury spill that occurred at Jefferson Elementary School in DeKalb, IL. According to school district officials, the spill occurred September 23, 1997 when a student opened a vial of mercury brought from home. At this time, the original source of the mercury is unknown, but local police are investigating the source. The student opened the vial of mercury and spread it on a desk in a small room that was used for consultations with a social worker. Once the adult that was present realized that the substance was mercury, the student was told to put it away. Somehow the mercury spilled onto the carpet and the student proceeded to rub it in with his/her shoe. The nickel sized spill was then vacuumed by the custodian while the children and social worker stayed in the adjoining room.

School officials notified the local fire department who proceeded to consult with the Illinois Environmental Protection Agency (IEPA) and Emergency Services and Disaster Agency (ESDA) on proper clean up procedures. After learning that the vacuuming had undoubtedly caused the mercury to be released into the surrounding air in the form of mercury vapor, fire officials dispatched a hazardous materials response team to perform clean up activities. The clean up activities, as suggested by IEPA and ESDA, included removing the carpet from the room where the spill occurred and confiscating the shoes of the room's occupants, the vacuum cleaner used, and the custodian's uniform. The materials believed to be contaminated were placed in three 55 gallon drums and left in an adjoining room. Both rooms were then sealed by taping the doors shut and covering all ventilation ducts with plastic. School officials then decided to notify all parents of the spill and cancel classes until the school could be tested for residual mercury contamination. IDPH personnel were asked to visit the school to determine if mercury vapors were present.

Aparna Kaul and Jennifer Slightom of IDPH arrived at Jefferson Elementary the afternoon of September 24, 1997 and met with two members of the DeKalb fire department, the school

custodian, three DeKalb school district officials, and the school's hazardous materials coordinator. After being briefed on the details of the incident, IDPH proceeded to investigate the school using a Jerome Mercury Vapor Analyzer. The instrument was regenerated and zeroed at the site per manufacturer's instructions prior to collection of samples. Mercury vapor levels were taken outdoors, along the hallway leading to the site of the spill, in the two sealed rooms and in the library and classrooms surrounding the spill site. No mercury vapors were detected at any time during the survey of these areas. The outside storage shed that had housed the contaminated vacuum cleaner was also examined and did not contain mercury vapors.

After it was determined that no mercury vapors were present in the school, the drums containing the contaminated items were examined. The drums were briefly opened and sampled with the instrument probe; all drums contained mercury vapor at levels above the detection limit of the instrument. This verified that there had been mercury contamination of the carpet and materials isolated.

As a result of the investigation, IDPH recommended that the two sealed rooms be opened and that the air-conditioning system be used to ventilate the school. The drums containing the mercury contaminated materials were removed from the school building and will be disposed of properly. IDPH did not see any reason to keep the school closed due to the fact that all mercury contamination appears to have been removed and no residual vapors were detected. No further action will therefore be necessary for Jefferson Elementary School.

If you have any further questions regarding this investigation, feel free to contact me or Aparna Kaul at (217) 782-5830.

Sincerely,



Jennifer Slightom
Environmental Toxicologist
Division of Environmental Health

cc: Tom Baughman, IDPH West Chicago Regional Office
Gary Flentge, IDPH West Chicago Regional Office
Dr. Robert Healey, DeKalb School District
Reuben Nelson, DeKalb Fire Department