

Illinois Department of
**Public
Health**

George H. Ryan, Governor • John R. Lumpkin, M.D., M.P.H., Director

4302 North Main Street • Rockford, Illinois 61103-1209

December 15, 2000

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DEPARTMENT
OF ENVIRONMENTAL HEALTH

#112060001

Mike Lawler
Fulton Elementary School
1301 7th Ave
Fulton, IL 61252

Dear Mr. Lawler:

On December 6, 2000 an indoor air investigation was conducted at the Fulton Elementary School. The investigation was conducted by Steve Johnson and Lisa Hilliard of our Rockford Regional Office. Yourself, Arnie and Lynn (from the Whiteside County Health Department) were present during the investigation. This investigation centered on the bioaerosol contamination in the building. We have prepared a short discussion that describes potential health effects and implications for employees and students who are exposed to bioaerosols in the building and then recommendations concerning repairs to the building.

Background

Bioaerosols are particles that are living or originate from living organisms. Bioaerosols include living or dead microorganisms such as bacteria, fungi (mold), viruses, cell structures, and products of metabolism. Pollen grains, fungal spores, dust mites, and insect body parts are also considered bioaerosols. The bioaerosols most frequently associated with moisture intrusion and water-damaged building components are bacteria and mold. If leaks and water-damaged building components are not promptly repaired and restored, bacteria and mold will colonize, grow, and proliferate on building materials.

Health Effects

Molds are found everywhere, indoors and outdoors. People are repeatedly exposed to molds by ingestion or inhalation, usually with no obvious ill effects. Molds primarily cause health problems when they are present in large numbers, such as in mold contaminated buildings. Occupants of mold contaminated buildings are potentially at risk of developing a variety of infectious, toxic, and allergic diseases. The most common health problems related to mold exposure are probably allergic reactions. Typical symptoms include:

- ▶ nose and throat irritation
- ▶ respiratory problems (asthma, coughing, shortness of breath)
- ▶ watery or burning eyes
- ▶ sinus and nasal congestion
- ▶ skin irritation

Some molds can produce toxins, called mycotoxins. Mycotoxins are found on living and dead mold spores. They suppress the immune system and can increase the susceptibility of an exposed individual to infectious disease. Chronic exposure to certain mycotoxins has also been associated with a variety of relatively mild health effects including headaches, sore throats, flu symptoms, diarrhea, fatigue, and general malaise.

In short, indoor exposure to mold is not healthy for anyone. Moisture sources and mold growth need to be quickly identified and corrected before health problems occur.

Recommendations

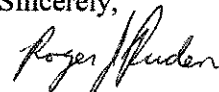
During our investigation, no mold growth was observed in the building. However, interviews with some of the staff indicated that during the summer and fall, moisture readily condenses in the building. This generally results in extensive areas of mold growth that must be quickly addressed by the maintenance staff. Common areas observed with mold growth have been walls and carpets. In addition, it is our understanding that several of the staff are experiencing varying degrees of allergic reactions.

Our recommendations regarding the building are:

- ▶ Correct the moisture problem. Although the maintenance staff has promptly cleaned any observed mold growth, there is a potential for serious health problems. Mold may contaminate surfaces not readily observable, such as the backs of ceiling tiles, chalk boards, or even inner wall cavities.
- ▶ Remove the carpet. A tile floor would be much easier to clean and not harbor mold spores.
- ▶ Continue to maintain the heating units. Filters need to be replaced on a regular basis and drip pans and tubes must be kept clean.
- ▶ Continue to promptly clean any observed mold growth.

If you have any further questions, please feel free to contact to contact myself or Steve Johnson at our Rockford Regional Office, 4302 North Main Street, Rockford Illinois 61103, telephone 815/987-7511.

Sincerely,



Roger J. Ruden, P.E.
Regional Engineer

SJ:sj

cc - Central Office
- Rockford Regional Office
- Whiteside County Health Department