Illinois School Radon Testing Program

Patrick Daniels
IEMA Radon Program Manager
The Legislation

• Public Act 96-0417 Amended the Illinois School Code January 1, 2010

• Recommended every occupied school building be tested every 5 years and new schools be built using radon resistant construction techniques.
The Legislation

- Required school districts to report testing results to the ISBE
- Required ISBE to prepare a report of results from schools that have performed testing to the General Assembly every 2 years
Allowed IEMA to exempt a school employee from licensing requirement if they passed an IEMA approved training course.
Relieving Cost Burden to School Districts

- Illinois School Radon Screening Program
  - Initiated January 2011
  - Partnership with the American Lung Association in Illinois (ALAIL)
  - IEMA provided testing equipment for loan to school districts
Relieving Cost Burden to School Districts

- Supplemental SIRG Funding
- Creation of online Training Course to school employees to perform screening measurements and the materials needed
- Site visits and technical guidance from IEMA & ALAIL
Illinois School Radon Screening Program

- General Program Procedures

**Step 1:** School signs up for program and completes Training Course

A $38,000 grant from the U.S. Environmental Protection Agency will be used to help 50 Illinois school districts screen school buildings for the radioactive gas radon. IEMA announced the screening program on Jan. 4 as it kicked off a statewide observance of Radon Action Month during January. Read press release.

**School Radon Screening Program**

To reduce the cost to school districts for the radon tests, the Illinois School Code allows school district employees to complete an online training course approved by IEMA in order to perform screening measurements in their district school buildings. By using a trained school district employee to conduct the tests, districts won't have the expense of hiring a licensed radon measurement contractor.

The Radon Measurement Course for School Districts Electing to Perform Radon Measurements is available for downloading. After completing the Radon Measurement course, district employees must demonstrate their knowledge of the course work by passing an online examination. After successfully passing the online exam a certificate will be emailed to the employee.

School districts interested in participating in the grant program recently awarded to the Illinois Emergency Management Agency (IEMA) and the American Lung Association of Illinois may register by contacting Patrick Daniels. The grant program will be available to the first 50 Illinois school districts to register with the Agency by email. Please include your District contact information in your correspondence.

Radon Measurement Course for School Districts Electing to Perform Radon Measurements

Radon Measurement Online Exam for School Districts Electing to Perform Radon Measurements
Step 2:
Initial site visit with ALA and/or IEMA representative (first school only)
Illinois School Radon Screening Program

Step 3:
Distribute radon devices to school

Step 4:
Receive used devices from school and distribute results
Illinois School Radon Screening Program

Step 5:
Complete final report
(first school only)
**What Have We Found so Far?**

### Districts:

| Number of School Districts in the State of Illinois | 869 |
| Number of Districts Signed Up to Be in Program | 56 |

### Schools/Classrooms:

| Number of Schools in the State of Illinois | 5,461 |
| Number of Schools Tested | 56 |
| Number of Classrooms Tested | 2,500 |
| Number of Classrooms with levels ≥ 4.0 pCi/L | 201 (8.0%) |
| Number of Schools with At Least 1 Elevated Classroom | 40 (71.4%) |
In Summary

- **Legislation Passed**
  - Amended the ILLINOIS SCHOOL CODE
  - Reports to ISBE & General Assembly
  - IEMA exempt employees

- **Schools weren’t testing – Cost Prohibitive!**
  - Create the IL School Radon Screening Program with ALAIL
  - Supplemental SIRG & IEMA testing equipment

- **Results**
  - **8.0%** of classrooms have elevated levels of radon, not the whole building
  - **71.4%** of schools have at least 1 classroom with elevated levels of radon
School Building Testing by the Untrained and Uninformed:
A case study in what a school system should not do.
Boulder Hill Elementary School
Oswego, Illinois
Radon Testing

• Concern for the health and safety of those who come to the school every day.

• Parents know one teacher at the school who has lung cancer, and who teaches in the same classroom as another who died of the disease.
Initial Radon Measurements

• School testing performed by an unlicensed, untrained and uninformed Environmental Firm.

• Test kits were obtained from the National Radon Program Services Program at Kansas State University.

• Samples were performed in May and June with 4 classrooms exceeding the USEPA Action Level.
Environmental Firm Results and Recommendations

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<tr>
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<th>May Results</th>
<th>June Results</th>
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<tbody>
<tr>
<td>Room 48</td>
<td>3.4</td>
<td>7.4</td>
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<tr>
<td>Room 51</td>
<td>1.9</td>
<td>6.1</td>
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- Radon was sampled initially (May Results) during the time period when the School was operating normally. (meaning that the doors, windows and ventilation systems were in use).
From the Environmental Firms Report to the District

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- Considering that radon testing is generally performed with the doors and windows closed and ventilation system fans off, the tests were repeated as soon as practical after the school year ended and appropriate conditions could be implemented.
Licensees Intervene

- Environmental Firm recommended hiring a licensed mitigation contractor to take corrective actions in the four rooms and perform long term radon testing in 10 other rooms that tested in June at levels of 2.0 pCi/L.

- Licensed Measurement Professional performs valid measurements in July with all rooms below the USEPA’s Action Level.
Public Response

• Montgomery resident criticized the district’s response, calling the multiple tests “lab shopping.”

• “That bothers me not only as a parent, but as a taxpayer. Fix the problem in Boulder Hill, that’s all you gotta do. The flow chart tells you when you find the levels this high, you fix.”
State Radon Program Actions

• Statement to School Board to stop reliance on bad testing data, “IEMA would not consider any measurement performed by an unlicensed individual as valid.”

• State Expert to Arrive Wednesday
School Board Action

• School Board agrees to hire two independent licensed measurement professionals to do additional testing.

• Asks IEMA for some action that can be taken while waiting for additional measurements.

• School Board hires HVAC Engineering firm to test and balance elementary school HVAC systems.
In Summary

• Only Licensed / Qualified individuals should perform radon measurements.

• No rooms indicated there was any need for any type of radon reduction activities. (Highest Level found was 2.6 pCi/L)

• All of the district buildings would be tested for radon as part of the Illinois School Radon Screening Program.

• The district spent $12,000 to have the HVAC system balanced by an engineering firm over a weekend.
Questions?

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