

Illinois School Radon Testing Program

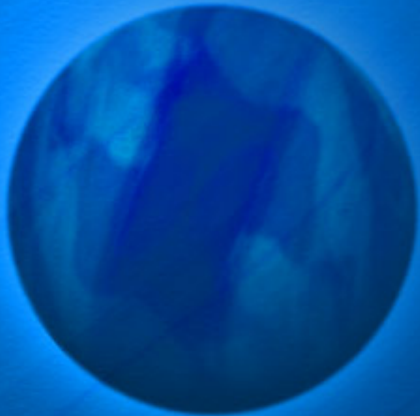
PATRICK DANIELS

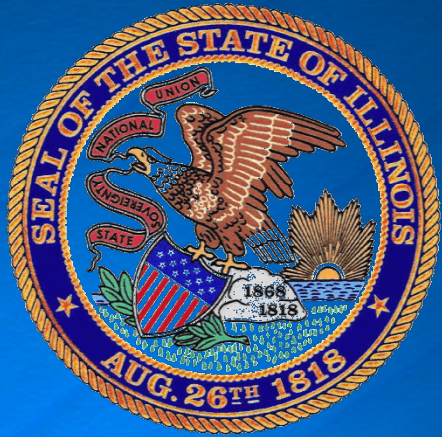
IEMA RADON PROGRAM MANAGER



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





ILLINOIS EMERGENCY MANAGEMENT AGENCY
Division of Nuclear Safety
Radon Program

Be it known that

Patrick Daniels

*has satisfactorily completed on 01/24/2011 the State of Illinois
Radon Measurement Course for School Districts
and in recognition of attendance and accomplishment
is awarded this*

Certificate of Training

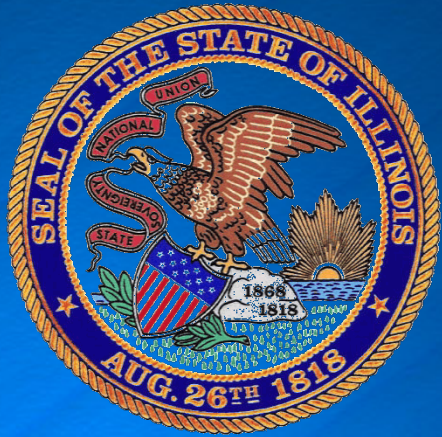
*in accordance with the Illinois School Code (105 ILCS 5)
and the Radon Industry Licensing Act (420 ILCS 44)
you may perform radon screening measurements for radon in the facilities of*

Illinois Emergency Management Agency

Joseph G. Klinger
Interim Director
Illinois Emergency Management Agency

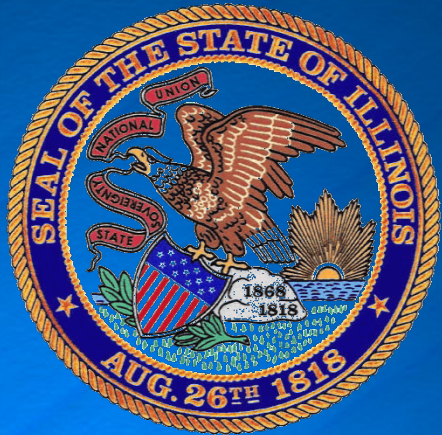
Patrick I. Daniels
Radon Program Manager
Illinois Emergency Management Agency
(217) 782-1325

- 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](#)

Illinois School Radon Screening Program

Sample School District #123
Quality Assurance Project Plan

Radon Measurements of
Sample Elementary School
123 Sample Street
Sample, IL 60000



Approval:

Performer: → _____ → Date: → _____

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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

Oswego School District #308

Final Measurement Report

Radon Measurements of
Old Post Elementary School
100 Old Post Road
Oswego, IL 60543



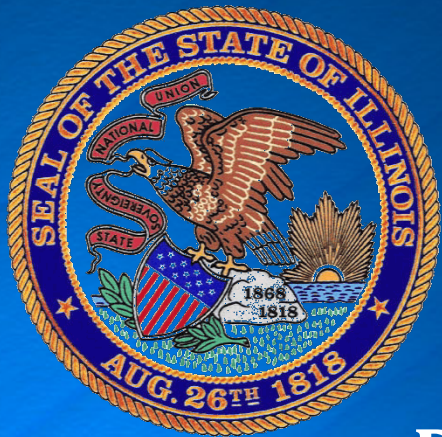
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Performer: → _____ → Date: → _____

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Step 5:

Complete final report
(first school only)



What Have We Found so Far?

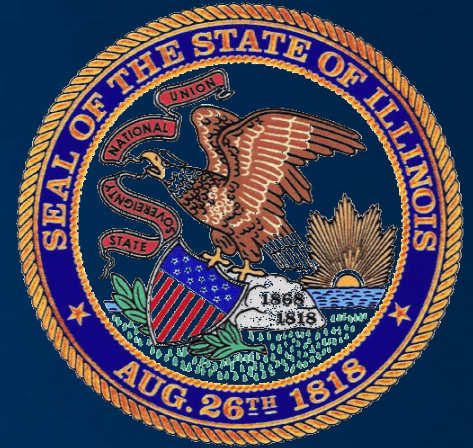
Districts:

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**

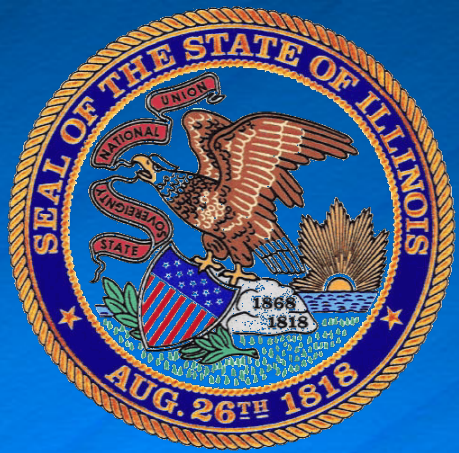
- Amended the ILLINOIS SCHOOL CODE
- Reports to ISBE & General Assembly
- IEMA exempt employees

- **Schools weren't testing – Cost Prohibitive!**

- Create the IL School Radon Screening Program with ALAIL
- Supplemental SIRG & IEMA testing equipment

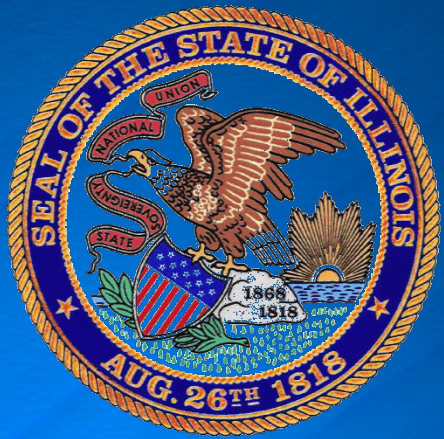
- **Results**

- **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



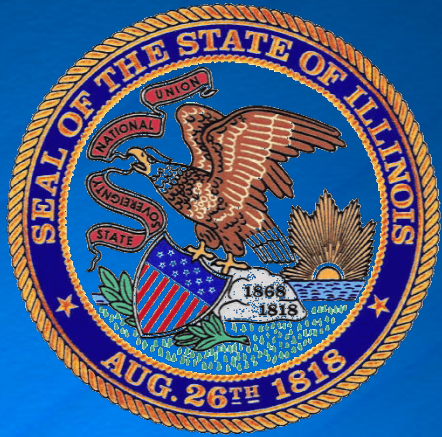
School Building Testing by the Untrained and Uninformed:

A case study in what a school
system should not do.



Boulder Hill Elementary School Oswego, Illinois

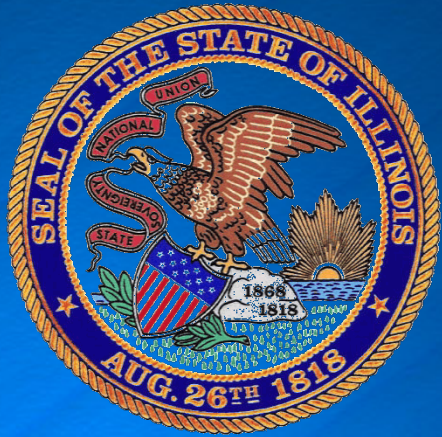




Radon Testing

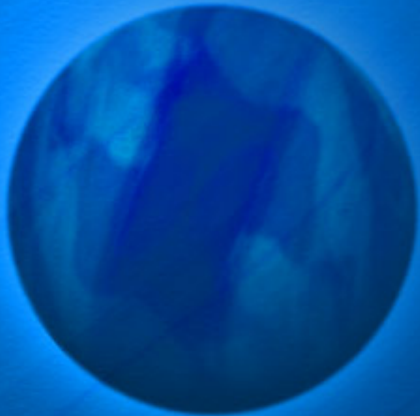
- Concern for the health and safety of those who come to the school every day.
- Parents know one teacher at the school who has lung cancer, and who teaches in the same classroom as another who died of the disease.

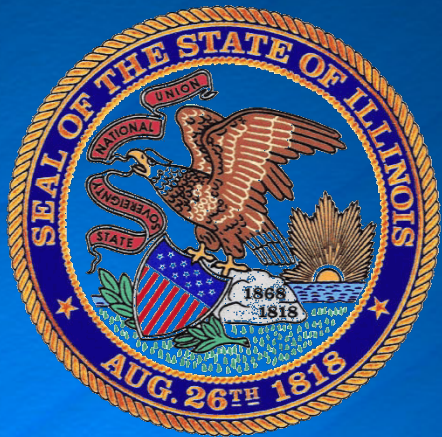




Initial Radon Measurements

- 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.



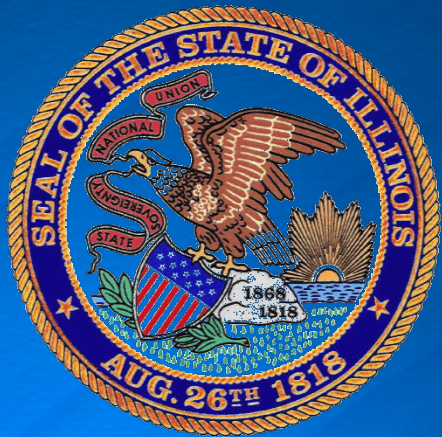


Environmental Firm Results and Recommendations

	May Results	June Results
Room 48	3.4	7.4
Room 51	1.9	6.1
Room 54	6.9	11.8
Room 55	3.0	5.0

- 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).



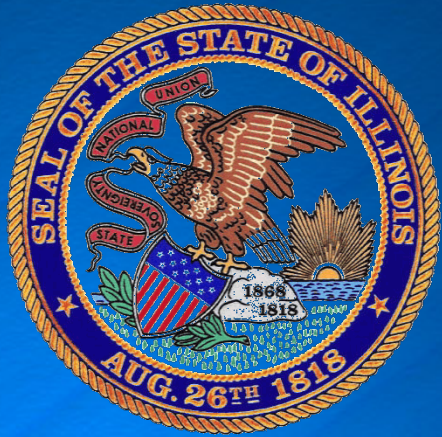


From the Environmental Firms Report to the District

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Room 48	3.4	7.4
Room 51	1.9	6.1
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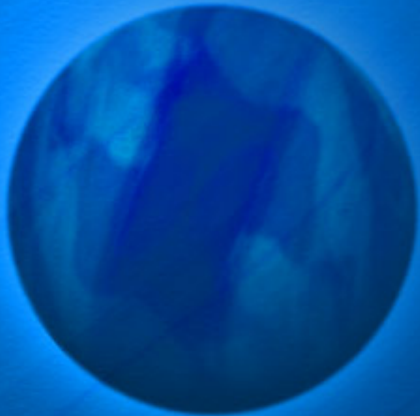
- Considering that radon testing is generally performed with the doors and windows closed and ventilation system fans off, the tests were repeated as soon as practical after the school year ended and appropriate conditions could be implemented.

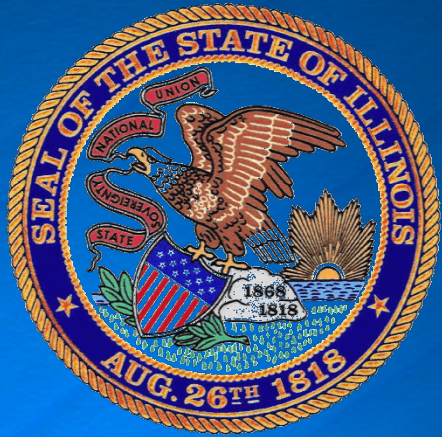




Licensees Intervene

- 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.

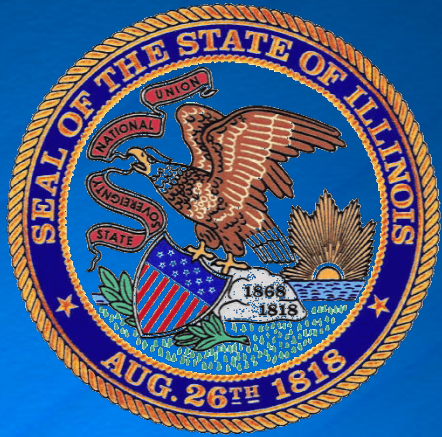




Public Response

- 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."

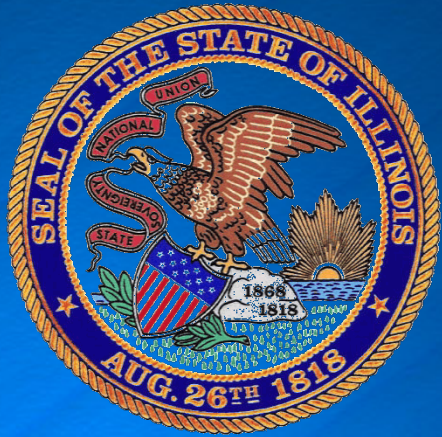




State Radon Program Actions

- 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

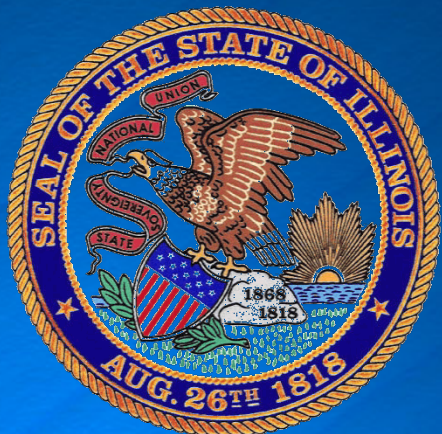
- School Board agrees to hire two independent licensed measurement professionals to do additional testing.
- Asks IEMA for some action that can be taken while waiting for additional measurements.
- School Board hires HVAC Engineering firm to test and balance elementary school HVAC systems.



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 ?

Patrick Daniels

IEMA Radon Program

(217) 782-1325

patrick.daniels@illinois.gov

