



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Radiation Protection

# **Bureau of Radion Protection Radon Division**

Upper Saucon Township

Open House

Dec. 4, 2014

# DEP/BRP Radon Division

## Introductions:

- Our host, Upper Saucon Township
- U.S. EPA, Region III, Philadelphia
- American Lung Association in Pennsylvania
- Any local testers or mitigators?
- PA DEP/Bureau of Radiation Protection

## Radon Basics:

- Radioactive Gas
- Naturally Occurring
- Can't see, smell, or taste

## Radon Health Information and Risks:

- Class A carcinogen
- Lung Cancer only known health effect

# DEP/BRP Radon Division

## EPA Risk Estimates, June 2003

### Males and Females

	<b>Lung Cancer Deaths</b>	<b>Radon Attributable</b>
Total	157,400	21,800
Smokers	146,400	18,900
Non-smokers	11,000	2,900

# EPA Risk Chart

Radon Level	Non-smoker	Smoker
	If 1000 people are exposed over a lifetime	If 1000 people are exposed over a lifetime
20 pCi/L	36 get lung cancer	260
10 pCi/L	18	150
8 pCi/L	15	120
<b>4 pCi/L</b>	<b>7</b>	<b>62</b>
2 pCi/L	4	32
1.3 pCi/l	2	20

*\* Assumes 70 years and 18 hours per day = lifetime*

## Pennsylvania Specifics:

- About 1.5 million test results
- Likely the most severely affected state in the U.S.
- Average basement reading of 7 pCi/L, first floor 3.5 pCi/L
- About 40% of readings greater than EPA guideline

## Previous targeted surveys

- 14 surveys from the following counties:
- Lehigh, Berks, York, Clearfield, Lancaster, Montgomery, Chester, Lackawanna, Potter, Luzerne, and Dauphin
- These surveys are used to increase awareness in higher risk areas.



# Upper Saucon Twp Survey

Letters sent	505	
Tests supplied	283	56%
Tests analyzed (to date)	145	29%

**Our goal is for 100% response**

*\* Figures current as of December 3, 2014*

# Upper Saucon Twp Survey

	Count	Percentage
0 - 4 pCi/L	66	45.5 %
4 - 20 pCi/L	45	31.0 %
20 - 100 pCi/L	17	11.7 %
100 - 999 pCi/L	10	6.9 %
> 1,000 pCi/L	7	4.8 %

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**55% of these results are over 4 pCi/L.**

**Typically, only 40% of results in PA are over 4 pCi/L**

## Testing and Mitigation:

- Testing: Simple, easy, inexpensive

# Radon Test Devices



2011 12 23

# Radon Mitigation, Inside

Courtesy WPB Enterprises



# Radon Mitigation, Outside

Courtesy WPB Enterprises



# DEP/BRP Radon Division



## Questions?

Contact Information:

[www.depweb.state.pa.us](http://www.depweb.state.pa.us)

Click Radiation Protection  
then click Radon

- 800 237-2366
- 717 783-359