WAYS TO
INCREASE PUBLIC AWARENESS
ABOUT THE RISKS OF RADON GAS
&
MITIGATE UTAH RESIDENTS’
EXPOSURE TO RADON

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Utah’s most deadly and costly geologic hazard

Between 1973 and 2017, an estimated 5826* radon-related fatalities occurred in Utah.

*Utah Department of Health
Radon Hazard is in Utah

ONE OUT OF THREE homes in Utah contains dangerous levels of RADON.

RADON FORMATION
Uranium breaks down into radium, which then decays into radon gas. Under ideal circumstances, the radon gas moves up through the soil into the atmosphere and dilutes—presenting little human-health risk. When a building is constructed on top of decaying uranium, instead of dissolving in the atmosphere, the radon gas ends up trapped inside the building. Occupants, including pets, then breathe the gas at unhealthy levels and can develop lung cancer.

CANCER IN NON-SMOKERS
Radon is the leading cause of lung cancer in non-smokers.

TESTING YOUR HOME
It is recommended that homeowners should test for radon every few years.

INEXPENSIVE TEST KITS ARE AVAILABLE AT RADON.UTAH.GOV
Utah’s Radon Hazards

DEQ Predicted values based on testing

EPA Predicted

>4 pCi/L

2-4 pCi/L

<2 pCi/L

unknown
Why Should You Care?

## RADON RISK IF YOU’VE NEVER SMOKED

<table>
<thead>
<tr>
<th>Radon Level</th>
<th>If 1,000 people who never smoked were exposed to this level over a lifetime*…</th>
<th>The risk of cancer from radon exposure compares to**…</th>
<th>WHAT TO DO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 pCi/L</td>
<td>About 4 people could get lung cancer</td>
<td>The risk of dying from poison</td>
<td>Consider fixing between 2 and 4 pCi/L</td>
</tr>
<tr>
<td>1.3 pCi/L</td>
<td>About 2 people could get lung cancer</td>
<td>(Average indoor radon level)</td>
<td>(Reducing radon levels below 2 pCi/L is difficult)</td>
</tr>
<tr>
<td>0.4 pCi/L</td>
<td></td>
<td>(Average outdoor radon level)</td>
<td></td>
</tr>
</tbody>
</table>

Note: If you are a former smoker, your risk may be higher.
*Lifetime risk of lung cancer deaths from EPA Assessment of Risks from Radon in Homes (EPA 402-R-03-003).
**Comparison data calculated using the Centers for Disease Control and Prevention’s 1999-2001 National Center for Injury Prevention and Control Report.
Radon in Utah

- Average radon level in Utah: 5.3 pCi/L

- Highest radon levels measured in Utah: 664 pCi/L

<table>
<thead>
<tr>
<th>County in Utah</th>
<th>Tests Completed</th>
<th>% of Households Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaver</td>
<td>423</td>
<td>26%</td>
</tr>
<tr>
<td>Box Elder</td>
<td>831</td>
<td>6%</td>
</tr>
<tr>
<td>Cache</td>
<td>3471</td>
<td>11%</td>
</tr>
<tr>
<td>Carbon</td>
<td>209</td>
<td>4%</td>
</tr>
<tr>
<td>Davis</td>
<td>5482</td>
<td>6%</td>
</tr>
<tr>
<td>Salt Lake</td>
<td>30,692</td>
<td>11%</td>
</tr>
<tr>
<td>Summit</td>
<td>1929</td>
<td>15%</td>
</tr>
<tr>
<td>Utah</td>
<td>12,055</td>
<td>8%</td>
</tr>
<tr>
<td>Wasatch</td>
<td>1193</td>
<td>14%</td>
</tr>
<tr>
<td>Washington</td>
<td>797</td>
<td>2%</td>
</tr>
<tr>
<td>Weber-Morgan</td>
<td>3231</td>
<td>5%</td>
</tr>
</tbody>
</table>

A sampling of counties across the state
2021 HB 45

Recommendations to

INCREASE PUBLIC AWARENESS ABOUT
THE RISKS OF RADON GAS
&
MITIGATE UTAH RESIDENTS’ EXPOSURE TO RADON
Public Awareness

• Increase Homebuyers Awareness of Radon Gas Hazards
• Increase Utah Student Awareness of Radon and other Natural Hazards
• Increase Public Awareness of Radon Gas Hazards
• Increase Public Access to Indoor Radon Gas Test Data
✓ Test Schools and Daycares for Radon
✓ Test Prisons and Public Buildings for Radon
Where does Utah Stand?

Sara Israelsen-Hartley
Deseret News
January 29, 2020
Increase Homebuyers Awareness

Radon can enter a house through many paths.
# Radon Testing in Utah Schools

School districts that are testing according to AARST protocol

<table>
<thead>
<tr>
<th>Beaver</th>
<th>Davis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canyons</td>
<td>Tooele</td>
</tr>
</tbody>
</table>

School districts that are testing/have tested but not according to AARST protocol

Not every building, not every classroom older than five years and/or test kits placed incorrectly

<table>
<thead>
<tr>
<th>Box Elder</th>
<th>Park City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emery</td>
<td>Provo</td>
</tr>
<tr>
<td>Granite</td>
<td>Salt Lake City*</td>
</tr>
<tr>
<td>Iron</td>
<td>South Summit</td>
</tr>
<tr>
<td>Jordan*</td>
<td>Uintah</td>
</tr>
<tr>
<td>Nebo</td>
<td>Wasatch</td>
</tr>
<tr>
<td>North Summit</td>
<td>Washington</td>
</tr>
</tbody>
</table>

School Districts that have not tested for radon

<table>
<thead>
<tr>
<th>Alpine^</th>
<th>Murray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cache</td>
<td>North Sanpete</td>
</tr>
<tr>
<td>Carbon</td>
<td>Ogden</td>
</tr>
<tr>
<td>Daggett</td>
<td>Piute</td>
</tr>
<tr>
<td>Duchesne</td>
<td>Rich</td>
</tr>
<tr>
<td>Garfield</td>
<td>San Juan</td>
</tr>
<tr>
<td>Grand</td>
<td>Sevier **</td>
</tr>
<tr>
<td>Juab</td>
<td>South Sanpete**</td>
</tr>
<tr>
<td>Kane</td>
<td>Tintic</td>
</tr>
<tr>
<td>Logan</td>
<td>Wayne</td>
</tr>
<tr>
<td>Millard</td>
<td>Weber</td>
</tr>
</tbody>
</table>

^Refused to answer our survey
**Districts that allowed the Deseret News and DEQ to come out and test an elementary school to demonstrate the process

*Saralisa Israelsen-Hartley
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Kids know about Radon – Let’s make it official

RADON. IT'S THAT DEADLY

Test Your Home Today

RADON

May Be CREEPIN

In Your House!!

1 in 3 HOMES CONTAIN

RADON

It rises from the GROUND.

Most people don't know it's in their HOME

Test yours today. Radon.Utah.Gov

UTAH GEOLOGICAL SURVEY
Where do your kids spend a large portion of time?

Test for Radon Every Five Years in:

- Schools
- Daycares
Where do you Spend the Majority of your time?

Test for Radon in:

- Public Buildings
- Prisons
Increase Public Awareness
Education Through Outreach

- Sponsor radon education at:
  - emergency preparedness
  - community fairs, etc.
- Distribution of free radon gas test kits
- Educate about radon gas action limits
Mitigation

• Reduce Utahns’ Exposure to Indoor Radon Gas in New Construction
• Reduce Utahns’ Exposure to Indoor Radon Gas
• Increase Public Access to Indoor Radon Gas Test Data
• Increase Understanding of Background Radon Levels in Utah
• Evaluate Appropriate Level of Indoor Radon Gas
What We Can Do

Reduce Utahns’ Exposure to Indoor Radon Gas in New Construction –

- Adopt Appendix F (Radon Control Methods) of the latest adopted International Residential Code (IRC) in the State Construction and Fire Codes Act. Requires passive or active radon mitigation systems be installed at time of construction.

- Adopt statewide, the Rough-In of Radon Control Components in New Construction of One- and Two-Family Dwellings and Townhomes in the State Construction and Fire Codes Act.
What We Can Do

Reduce Utahns’ Exposure to Indoor Radon Gas –
- Require in-home testing when a home is sold
- Develop a no or low interest loan program for radon mitigation of an existing residential property

Source: AARST
What We Can Do

Reduce Utahns’ Exposure to Indoor Radon Gas –

- If the results of the radon test are greater than or equal to 4 pCi/L, recommend that a radon mitigation system be installed.
- If the results of the radon test are between 2.7 - 4 pCi/L, consider installing a radon mitigation system.

Source: AARST
What We Can Do

Reduce Utahns’ Exposure to Indoor Radon Gas –

- Create a new, online radon test database
- Collect and archive radon test data; and maintain the database
- This database would distribute radon gas testing data by fixed U.S. Census block areas

Source: DEQ
What We Can Do

Evaluate Appropriate Level of Indoor Radon Gas –

- Commission a study to evaluate the EPA’s greater than 4.0 pCi/L radon gas action limit
- Decide whether Utah should adopt a stricter radon gas action limit and the subsequent impact
Helping At-Risk Populations
Rural Areas and Low Income Populations

Indian Tribal Lands
And
Utah Counties

Radon Levels by County
Public Awareness

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Questions

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