



# NEVADA RADON REPORT

## Nevada Radon Education Program

A FEDERALLY FUNDED PROGRAM THROUGH THE NEVADA STATE HEALTH DIVISION AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY



University of Nevada  
Cooperative Extension

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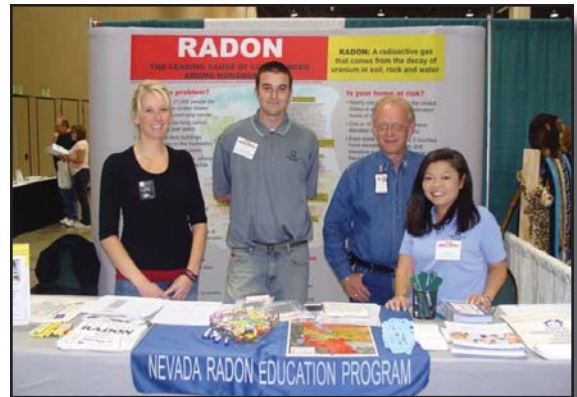
## Radon message promoted at fall home show

The Nevada Radon Education Program (NREP) participated in the annual Fall Home and Garden Show, held Oct. 23-25, at the Reno-Sparks Convention Center.

Megan Long, Jordan Lubek and Susan Howe, with NREP, and Adrian Howe with the Nevada State Health Division, provided visitors with information and publications about radon, radon testing, mitigation, radon in real estate transactions and new home construction. Radon test kits were available for purchase.

Certified radon mitigator, Derrick Carpenter, of Dependable Home Solutions, also had a booth at the homeshow and talked to people about fixing their homes.

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University of Nevada Cooperative Extension employees, Megan Long, Jordan Lubek and Susan Howe, and Adrian Howe, NSHD, talked to visitors about the importance of testing their homes for radon.

## Doctor talks about causes of cancer

Dr. Eric Rost, a radiation oncologist at the Renown Institute for Cancer in Reno, gave a lecture, "Truth, Lies & Mysteries About Environmental Causes of Cancer," on Dec. 2, at Tahoe Center for Environmental Sciences at Sierra Nevada College, in Incline Village.

Julie Brandt and Susan Howe of University of Nevada Cooperative Extension's

» continued, **DR. ROST**, Page 2



Eric C. Rost, MD discussed environmental causes of cancer, including radon as a cause of lung cancer.

## Nevada holds first Radon Poster Contest

The Nevada Radon Education Program (NREP) sponsored its first Radon Poster Contest for children ages 7-12. A small amount of entries were received by the October deadline and the top three posters in the state competition received cash awards.

Paige Thomson, a Las Vegas student from the Junior Gardener group, submitted the winning radon poster for the state of Nevada. Paige was awarded a \$50 cash award and her poster was sent to the National Radon Poster Contest in Washington, D.C. The national winners will be announced in January with a special ceremony held in Washington, D.C.

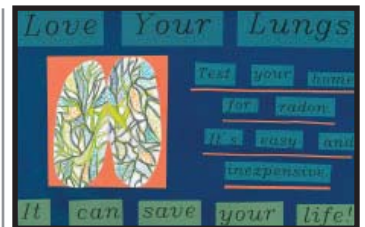
Two other posters winners were Alexandra Resney, 2nd place winner, and Katiya Resney, 3rd place winner, both of Gardnerville. They each received a cash prize of \$25 and their posters were also sent to the national contest.



Las Vegas student, Paige Thomson, was awarded a participation certificate and a \$50 cash award as first place winner of the Nevada Radon Poster Contest. Laura Au-Yeung, Southern Area Radon Coordinator, is pictured presenting Paige with her certificate, as her mother, Michelle Thomson, looks on.

NREP plans to offer the poster contest again in late 2010 for the 2011 contest and hopes to have more entries.

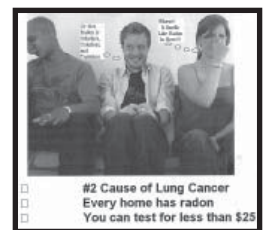
For more information on the National Radon Poster Contest, or to view the top posters from each state, visit [www.sosradon.org](http://www.sosradon.org). For more information on Nevada's poster contest, call Megan Long with NREP at 775-856-8408.



First place poster by Paige Thomson of Las Vegas.



2nd place poster by Alexandra Resney of Gardnerville.



3rd place poster by Katiya Resney of Gardnerville.

# Southern area update

A highlight for the Southern Area Radon program was the announcement that the Nevada Radon Poster Contest winner was one of their Youth Master Gardeners, Paige Thomson. Thomson received a check for \$50, as well as a chance to participate in the National Radon Poster Contest.

“The poster contest helps in creating awareness among young people regarding the radon health risk in homes,” said Laura Au-Yeung, Southern Area Radon Coordinator. “Hopefully, as these youth become adults, they will remember to avoid indoor radon exposure in their future homes.”

The Southern Area Radon program was also invited to be part of the fall festival celebrated by Lincoln County residents in Caliente. A handful of residents who had recently moved to Caliente from other parts of the country were interested in finding out more about radon in the state of Nevada. Attendees received free radon test kits during the festival.

“We also managed to create some Radon awareness among local residents on this beautiful fall afternoon,” said Au-Yeung.

Date	Program/Presentation	No. kits distributed	No. tested	% tested
10/10/09	Lincoln County Fall Festival	4	2	50.0%
11/7/09	Henderson Multigenerational Ctr.	22	4	18.2%
11/16/09	Odyssey Charter Schl-Health Expo	24	0	0.0%
<b>Program Totals</b>		<b>50</b>	<b>6</b>	<b>12.0%</b>

UNCE Radon Program	prior to Sep 07	FY 08	FY 09	July-Sept	Oct - Dec 09	Total to date
Radon phone and email inquiries	NA	2,136	2,688	310	338	5,472
Direct contacts promoting radon testing and mitigation	NA	3,259	14,000	1,834	1,088	20,181
Newspaper/magazine articles	1	99	61	4	26	191
Number of TV reports	NA	17	9	1	5	32
Web site pages of NV Radon information					35	35
Number of radio PSAs	NA	6	6		20	32
Number of radon exhibits	NA	51	106	10	26	193
Radon publications/info distributed	NA	2,798	67,071	2,927	25,310	98,106
Web site page hits	NA	NA	29,466	10,754	13,693	53,913
Test kits distributed	92	2,274	10,622	632	714	14,334
Homes tested-Short-Term	843	1,430	3,884	-14*	348	6,491
Homes tested-Long Term	60	32	49	19	6	166
Schools tested	6	1	16	1	4	28
Schools mitigated	3	1	2		3	9
Homes mitigated	4	20	75	12	32	143
Large buildings mitigated			2			2
Homes tested in real estate transaction	1	27	68	3	17	116
Homes built with RRNC features		7	36	2	4	49
Number/list of mitigators		3	2			5

\*decrease in homes tested due to refinement of data this quarter.

# NREP at Cattlemen's Covention

The Nevada Radon Education Program (NREP) attended the 74th Joint Annual Cattlemen's Convention, held at John Ascuaga's Nugget in Reno, Nov. 11-13. This year, 150 Cattlemen's Association members traveled to Reno and participated in educational forums, Cattlemen's College sessions, joint policy meetings, social events, and award banquets. NREP was represented along with booths including topics such as wild horses, estate tax, youth education, animal welfare, water rights, wildlife, and federal land management.

NREP set up a booth in the convention area alongside the University of Nevada Cooperative Extension booth. Visitors were able to pick up publications on radon and test kits were available for purchase.

Megan Long, Radon Education Coordinator for NREP, was on hand to



Cattlemen's Convention attendees viewed the Nevada Radon Program's exhibit display during the Cattlemen's Convention, held at John Ascuaga's Nugget, Nov. 11-13.

answer questions about radon testing and radon health risk.

“The Cattlemen's Convention is a great way to meet with ranchers from all over the state and reach parts of rural Nevada that may not get this information otherwise,” said Long.

## Dr. Rost

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Radon Education Program attended the presentation. They also set up a radon display and offered radon test kits to attendees.

Dr. Rost listed a variety of environmental carcinogens, including radon in Group A carcinogens known to cause cancer in humans. Among the known cancer-causing suspects are radiation, metals, smoking, and pesticides.

“Radon gets trapped in lungs and mutates cells,” said Rost. “It can take many years to cause cancer. Being exposed to radon doesn't mean you will get lung cancer, but it increases your risk.”

With environmental factors, getting cancer depends upon many factors, including the dose and the amount of exposure time.

Attendees numbered about 30, with 13 requesting test kits. Currently, only two of those kits have been used.

## Homeshow

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“If you test and find high levels of radon in your home, NREP recommends you mitigate (fix) your home for radon,” said Susan Howe, NREP Program Director. NREP maintains a list of certified radon mitigators for the state of Nevada and it is available on the Radon in Nevada Web site at [www.unce.unr.edu/radon](http://www.unce.unr.edu/radon).

Because test kits were being sold and not given out free, only 30 kits were distributed at the homeshow. Although visitors paid for their kits, only nine or 30 percent of them were used.

## Quarterly distribution data

Distribution Office	# Distributed	# Tested	% Used
Carson City County	14	6	42.9%
Churchill County	3	3	100.0%
Clark County	53	25	47.2%
Douglas County	74	39	52.7%
Humboldt	2	2	100.0%
Lyon County	3	2	66.7%
NV State Health Division	1+	1	
N Nye County	1	0	0.0%
Pershing County	2	0	0.0%
S Nye County	6	4	66.7%
Washoe County	204	97	47.5%
Incline Village	123	48	39.0%
Washoe Health Dept.	2+	2	
White Pine County	4	1	25.0%
<b>DISTRIBUTION TOTALS</b>	<b>492</b>	<b>230</b>	<b>46.7%</b>

\*Distribution chart does not include kits given out at presentations, home shows, health fairs or expos.

Date	Program/Presentation	No. kits distributed	No. tested	% tested
10/23/09	10 Reno Homeshow	30	9	30.0%
11/2/09	10 Incline McCloud	6	5	83.3%
11/12/09	10 Reno Cattlemen's	2	0	0.0%
12/2/09	10 Incline-Dr. Rost	13	2	15.4%
12/15/09	10 SEC Meeting	10	0	0.0%
<b>Program Totals</b>		<b>61</b>	<b>16</b>	<b>26.2%</b>





## Nevada Radon Short-Term Test Results\*

From February 2003 to December 31, 2009

Nevada counties	Carson City		Churchill		Clark		Douglas		Elko		Esmeralda	
Total number of usable tests per county	460		110		665		1,295		93		0	
EPA Action Level	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0
No. of short-term radon test results	301	159	94	16	616	49	763	532	58	35	0	0
% of homes tested that have elevated radon levels	34.57%		14.55%		7.37%		41.08%		37.63%			

Nevada counties	Eureka		Humboldt		Lander		Lincoln		Lyon		Mineral	
Total number of usable tests per county	4		34		16		15		229		22	
EPA Action Level	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0
No. of short-term radon test results	2	2	22	12	11	5	11	4	159	70	14	8
% of homes tested that have elevated radon levels	sample size too small		35.29%		31.25%		26.67%		30.57%		36.36%	

Nevada counties	Nye		Pershing		Storey		Washoe		White Pine		TOTALS	
Total number of usable tests per county	84		61		10		2,502		83		5,683	
EPA Action Level	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0
No. of short-term radon test results	77	7	24	37	9	1	2,029	473	64	19	4,254	1,429
% of homes tested that have elevated radon levels	8.33%		60.66%		10.00%		18.90%		22.89%		25.15%	

\*State data provided by the Nevada State Health Division, AccuStar Labs, Alpha Energy Laboratories and Pro Lab. Results based on independently tested homes, not scientific sampling. When known, post-mitigation results are not included and usable results are valid tests, one per home, using an average of multiple tests from the lowest level of the home tested.

## Nevada Radon Long-Term Test Results\*\*

From January 2001 to December 31, 2009

Nevada counties	Carson City		Churchill		Clark		Douglas		Elko		Lyon		Washoe		White Pine		TOTALS	
Total number of usable tests per county	5		1		18		45		2		14		99		6		190	
EPA Action Level	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0	<4.0	>4.0
No. of long-term radon test results	2	3	1	0	18	0	30	15	2	0	9	5	69	30	6	0	137	53
% of homes tested that have high radon levels	60.00%		0.00%		0.00%		33.33%		0.00%		35.71%		30.30%		0.00%		27.89%	

\*\*State data provided by RSSI, Alpha Energy Laboratories and AccuStar Labs. Results based on independently tested homes, not scientific sampling. When known, post-mitigation results are not included and usable results are valid tests, one per home, using an average of multiple tests from the lowest level of the home tested.

## Radon Zone Summaries

Nevada Radon Zone Short-Term Test Result Summary			
Zone 1 counties	Total Tests	Tests > 4 pCi/l	% high radon
Carson City, Douglas, Eureka, Lander, Lincoln, Lyon, Mineral, Pershing, White Pine	2,185	836	38.26%
Zone 2 counties			
Churchill, Elko, Esmeralda, Humboldt, Nye, Storey, Washoe	2,833	544	19.20%
Zone 3 counties			
Clark	665	49	7.37%
Statewide statistics	5,683	1,429	25.15%

Nevada Radon Zone Long-Term Test Result Summary			
Zone 1 counties	Total Tests	Tests > 4 pCi/l	% high radon
Carson City, Douglas, Eureka, Lander, Lincoln, Lyon, Mineral, Pershing, White Pine	70	23	32.86%
Zone 2 counties			
Churchill, Elko, Esmeralda, Humboldt, Nye, Storey, Washoe	102	30	29.41%
Zone 3 counties			
Clark	18	0	0.00%
Statewide statistics	190	53	27.89%

## County Radon Potential Update

County	As of 12-31-08			As of 12-31-09		
	No. of usable tests	No. of tests over EPA Action Level	% of homes having elevated radon levels	No. of usable tests	No. of tests over EPA Action Level	% of homes having elevated radon levels
Carson City	133	42	31.6%	460	159	34.6%
Churchill	53	6	11.3%	110	16	14.5%
Clark	324	23	7.1%	665	49	7.4%
Douglas	314	149	47.5%	1295	532	41.1%
Elko	47	16	34.0%	93	35	37.6%
Esmeralda	0	0	*	0	0	*
Eureka	1	1	100%*	4	2	50%*
Humboldt	13	3	23.1%	34	12	35.3%
Lander	15	5	33.3%	16	5	31.3%
Lincoln	9	3	33.3%*	15	4	26.7%
Lyon	89	19	21.3%	229	70	30.6%
Mineral	8	4	50%*	22	8	36.4%
Nye	14	0	0.0%	84	7	8.3%
Pershing	57	33	57.9%	61	37	60.7%
Storey	6	1	16.7%*	10	1	11.1%*
Washoe	1,058	215	20.3%	2,502	473	18.9%
White Pine	25	6	24.0%	83	19	22.9%
State Totals	2,166	526	24.3%	5,683	1,429	25.1%

Source: UNCE Radon Education Program database of short-term test results data as of Dec. 31, 2009. Results are based on independently tested homes, not scientific sampling. Usable test results include valid tests, one per home, using an average result for multiple tests, from the lowest level of the home tested, and when known, post-mitigation results are not included.

\*Small sample size: more testing is needed to reference reliable radon potential for this area.



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