



El Dorado County

Legislative File Number 08-0351 (version 1)

Development Services Department recommending the Board take the following action regarding radon gas mitigation in El Dorado County:

- (1) Take no regulatory action;
- (2) Direct staff to continue providing education and encouraging owners and contractors to voluntarily include radon mitigation techniques in new dwellings; and
- (3) Direct staff to bring potential radon mitigation measures to the Board as new information becomes available or as the State takes action on radon mitigation. (Cont'd 1/15/08, Item 48 - File 08-0099)

FUNDING: General Fund - Development Services Budget.

BUDGET SUMMARY:		
Total Estimated Cost		\$0.00
Funding		
Budgeted	\$0.00	
New Funding	\$	
Savings	\$	
Other	\$	
Total Funding Available	\$0.00	
Change To Net County Cost		\$0.00

Fiscal Impact/Change to Net County Cost: There is no increase in net County cost, and therefore does not affect the Development Services Department budget.

Background: On January 8, 2008, the Board of Supervisors adopted Resolution 05-2008 declaring January 2008 as Radon Action Month in El Dorado County. As a result of the adoption of this resolution, the Board requested this item be returned to the Board on March 25, 2008 for further review.

Radon is a naturally occurring radioactive gas that is odorless and tasteless. It is formed from the radioactive decay of uranium in soil, rocks, and water. Radon can enter houses through the foundation and under floor openings, and cause levels of radon higher than the recommended EPA levels of 4 picoCuries per liter (pCi/L). Long-term exposure to radon is associated with increased risk of developing lung cancer and is listed by EPA as the second leading cause of lung cancer in the United States.

The California Department of Health Services (CDHS) conducted a radon survey in the Tahoe area in the late summer/fall of 2007. Test results showed levels of radon above the recommended EPA level in more than 50% of the homes in the South Lake Tahoe area. Test results are reported by zip code in the CDHS database available on their website. The United States Geological Survey (USGS) will be producing a risk map based on addresses that will be available by the end of this year.

Radon can only be detected through testing in existing buildings. Radon testing and remediation is presently voluntary throughout the state of California. It is more cost-effective to include radon-resistant techniques while building a home, rather than installing a radon reduction system in an existing home. Estimated materials and labor costs for new construction range from \$350 to \$500. The cost to retrofit an existing home according to EPA can range from \$800 to \$2,500. Many of the radon prevention methods already exist in new construction due to our strict energy codes and building codes such as floor ventilation, sealed ducting, sealed mechanical systems, plastic sheeting, and sealed floor penetrations.

As a part of National Radon Action Month in January, the Environmental Management Department has distributed more than 250 free radon test kits to the public and public agencies such as the Lake Tahoe Unified School District, Lake Tahoe Community College, and the United States Forest Service. There have been numerous articles in the Tahoe Daily Tribune regarding radon, especially involving the school districts in California and Nevada. The Development Services office at Tahoe is providing "Radon Resistant New Construction" (RRNC) information for all new single family dwelling permits, and will be including that information in this year's allocation packet.

Issues/Analysis: At the request of the Board, staff has provided the following regulatory options for Radon resistant construction activities:

- The adoption of Appendix F of the International Residential Code-Appendix F sets forth the construction techniques intended to resist radon entry and prepare the building for post-construction mitigation if necessary. Jurisdictions may adopt this appendix based on the use of locally available data, or designation by EPA of being in a Zone 1 area (high potential greater than 4pCi/L). Douglas County and Carson City Nevada areas are designated as Zone 1. Currently El Dorado County is designated as Zone 2 with moderate potential (from 2 to 4 pCi/L). The 2003 version of Appendix F does not require any testing of the home after construction to determine if the passive system is working.
- Develop and adopt an El Dorado County ordinance specific to RRNC-the EPA "Model Standards and Techniques for Control of Radon in New Residential Buildings" and/or Appendix F could be used as guidelines. The California Health and Safety Code requires the governing body of a city or county to make an express finding that modifications to the Building Standards are "reasonably necessary because of local climatic, geological or topographical conditions". The findings

must be filed and approved by the Californian Building Standards Commission. The ordinance could require testing of the home prior to the final to determine if the passive system is working, and require installation of an active system if the test indicates it is necessary.

- Take no regulatory action at this time-the Development Services and Environmental Management Departments would continue to provide information to the public and to owners/contractors of new single-family dwellings. The County would continue to encourage radon testing, radon remediation, and RRNC techniques. RRNC would be voluntary. Upon release of the risk map by the USGS, staff will review the material and evaluate the need to work with the Realtors Association to possibly develop a notification requirement upon the sale of a home.

Action to be taken following Board approval: Based on the direction of the Board of Supervisors, Development Services will take the necessary action to comply with the Board's direction.

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Concurrences: