HSWMR

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- **FROM:** Dr. Christopher M. Teaf President & Director of Toxicology
- TO: Laymon Gray Associate Director Environmental Health & Safety Florida State University
- **DATE:** 02 August 2023

SUBJECT: FSU Westcott Welcome Center - Radon Evaluation

The Westcott Welcome Center building (Welcome Center) at Florida State University (FSU) has been evaluated for radon content due to indoor air quality questions that have been raised regarding other buildings on the FSU campus. From February 6 to 8, 2023, a radon measurement was collected at one (1) location in the small Welcome Center building. The 48-hour charcoal canister measurement was collected by a state-certified radon contractor, in accordance with standard protocols of the United States Environmental Protection Agency (USEPA) and the Florida Department of Health (FDOH). The radon value was 5.2 picoCurie/liter (pCi/L), which is slightly greater than the 4 pCi/L USEPA Action Level. The location was retested from April 10 to 12, 2023 using a Continuous Radon Monitor (CRM). The CRM protocol is considered to be more comprehensive and reliable than charcoal canister testing. The retest result (3.7 pCi/L) was less than the Action Level, but the average of the original and retest results (4.5 pCi/L) exceeded the Action Level. Later in April, a 7-day test was conducted at the Welcome Center using two CRM devices placed in opposite corners of the building. Both results (5.0 and 5.5 pCi/L) were above the Action Level.

Detectable radon levels are ubiquitous throughout the state, with most areas of Florida exhibiting low radon. Outdoor levels typically are in the 0.4 to 0.5 pCi/L range, and indoor levels regularly range from 1 to 2 pCi/L. Radon comes from decay of natural radium, and elevated indoor radon is related to local geology. Radon often is present in clays, phosphate rock, and igneous rocks, like granite, and can originate from bedrock far below land surface. Because it is a naturally occurring substance, exposure is common and unavoidable.

The data summarized herein reflect a condition that is consistent with many buildings in Florida and throughout the United States, and the radon conditions at the Westcott Welcome Center do not represent a health concern. However, due to the consistent low-level exceedance of the Action Level, the University initiated an evaluation for an appropriate mitigation solution. In July 2023 an Energy Recovery Ventilation (ERV) radon mitigation system was installed, and from July 13 to 15, post-mitigation radon testing was conducted. The average result of 1.9 pCi/L from the post-mitigation testing was well below the Action Level, indicating that the ERV system is working as intended. The results of the February, April, and July 2023 sampling events are summarized in the attached table. The Welcome Center will be placed on the system maintenance and annual radon monitoring schedule, in accordance with FDOH guidance and FSU policy.

RADON MEASUREMENTS - Westcott Welcome Center, Florida State University

Location	Sampling Dates	Number of Samples	Min pCi/L	Max pCi/L	Notes
1st Floor	6 to 8 Feb 2023	1	5.2	5.2	1 of 1 result > 4 pCi/L Action Level
1st Floor (CRM retest)	10 to 12 Apr 2023	1	3.7	3.7	No results > 4 pCi/L Action Level
1st Floor (CRM retest)	18 to 25 Apr 2023	2	5.0	5.5	2 of 2 results > 4 pCi/L Action Level
1st Floor and above (post-mitigation)	13 to 15 Jul 2023	1	1.9	1.9	No results > 4 pCi/L Action Level

pCi/L = picocuries per literShaded results indicate the post-mitigation clearance sampling.