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Hazardous Substance & Waste Management Research, Inc.

2976 Wellington Circle West Tallahassee, Florida 32309 Phone: (850) 681-6894 Fax: (850) 906-9777 www.hswmr.com

FROM:	Dr. Christopher M. Teaf President & Director of Toxicology
TO:	Laymon Gray Associate Director Environmental Health & Safety Florida State University
DATE:	19 May 2023

SUBJECT: FSU Turnbull Conference Center - Radon Evaluation

The Turnbull Conference Center (Turnbull) 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 13 to 15, 2023, radon measurements were collected at sixteen (16) locations at Turnbull. The 48-hour charcoal-liquid scintillation vial measurements were conducted 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). One of the radon values was greater than the 4 picoCurie/liter (pCi/L) USEPA Action Level (7.0 pCi/L in one basement sample), while the remaining results ranged from 0.3 to 1.9 pCi/L. Results for the February 2023 sampling event and two subsequent retests are summarized in the attached table.

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 reflected a condition that is consistent with many buildings in Florida and throughout the United States, and the radon conditions at Turnbull did not represent a health concern. However, due to the single detection greater than the Action Level, Turnbull was resampled in May 2023. The resampling included testing the space on the floor above the area exceeding the Action Level. The attached table has been updated to include the results of the continuous radon measurement (CRM) retests, all of which were below the USEPA Action Level of 4 pCi/L. Based on the results of the resampling, further investigation or other action regarding radon at the Turnbull Conference Center is not deemed necessary at this time.

Location	Sampling Dates	Number of Samples	Min pCi/L	Max pCi/L	Notes
Basement	13 to 15 Feb 2023	6	0.8	7.0	One result > Action Level 4.0 pCi/L
1st Floor	13 to 15 Feb 2023	10	0.3	1.9	No results > Action Level 4.0 pCi/L
Basement (CRM retest)	8 to 10 May 2023	Result < 4 pCi/L (less than half original results, so third test required for confirmation per protocol - third test results provided below)			
1st Floor (CRM retest)	8 to 10 May 2023	Result < 4 pCi/L - 1st floor cleared			
Basement (CRM retest confirmation)	16 to 18 May 2023	Result < 4 pCi/L - average of three tests < 4 pCi/L (2.8 pCi/L) - basement cleared			

RADON MEASUREMENTS - Turnbull Conference Center, Florida State University

pCi/L = picocuries per liter

Shaded results indicate the retest clearance sampling.