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DATE: 15 February 2024 (*Updated from 18 November 2022*)

SUBJECT: FSU College of Engineering Lab Building - Radon Evaluation

The College of Engineering Laboratory Building at Florida State University (FSU) has been evaluated for radon content as part of ongoing university-wide indoor air quality evaluations. Initial radon testing was conducted from October 18 to October 20, 2022, at 17 locations at the building. The 48-hour charcoal canister measurements were 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). Seven of the 17 samples were at or greater than the 4 picoCurie/liter (pCi/L) USEPA Action Level (range 4.0 to 4.5 pCi/L) for radon. The remaining 10 samples all were below 4 pCi/L (range 3.2 to 3.9 pCi/L). Results for the October 2022 sampling event, as well as subsequent retests and annual follow-up testing, are summarized in the attached table.

Because of the low level exceedances of the Action Level, the seven elevated locations were resampled in January 2023. All seven of the locations that were retested exceeded the Action Level (range 4.2 pCi/L to 16.6 pCi/L). At the time of the original testing and retesting, and continuing today, the areas in the building where Action Level exceedances occurred were rarely used, and the building is access controlled. Because of the continued Action Level exceedances, the Engineering Lab Building was placed on the annual maintenance and monitoring program with respect to radon. The 2023 annual follow-up testing for the Engineering Lab Building was completed in January 2024. All seven of the locations that originally exceeded the Action Level were tested for the annual followup testing, and again exceeded the Action Level (range 5.0 pCi/L to 8.8 pCi/L).

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. The limited area of elevated results, as well as the limited use and occupational nature of potential exposures suggests no significant health concern at the Engineering Lab Building for faculty, students, or visitors under present circumstances. The annual testing program will be continued per FSU policy. In the event that use or building conditions change significantly, it may be appropriate to evaluate the building for potential radon mitigation.

RADON MEASUREMENTS - College of Engineering Lab Building, Florida State University

Location	Sampling Dates	Number of Results	Min pCi/L	Max pCi/L	Notes
First Floor	18 to 20 Oct 2022	17	3.2	4.5	7 of 17 results exceed 4 pCi/L
First Floor retest	09 to 11 Jan 2023	7	4.2	16.6	7 of 7 results exceed 4 pCi/L
<i>Annual Follow-up Testing</i>					
2023 (same locations that previously exhibited Action Level exceedances)	Testing conducted 17 to 19 Jan 2024; 7 of 7 locations exceed 4 pCi/L - range 5.0 to 8.8 pCi/L				

pCi/L = picocuries per liter