



Naval Air Station Patuxent River Complex

What Happens After the Radon Survey?

In 2018, the Naval Air Station Patuxent River Complex (NASPRC) started testing various occupational spaces for the presence of radon gas. The survey was not being conducted because of a known concern, but rather as a proactive step to ensure that our service members and civilian professionals live and work in a healthy environment. This one-year survey will be coming to a close beginning in March 2019.

Radon is a naturally occurring colorless, odorless, tasteless, radioactive gas that forms from the natural breakdown (radioactive decay) of uranium found in soil and rocks and is harmless at outdoor levels. In some cases, Radon may migrate into buildings via openings in the foundation and accumulate into elevated levels that can be harmful through long-term exposure. Radon breaks down into radon decay products (RDPs), which are charged particles that deposit onto lung tissue after inhalation and may cause lung cancer in individuals who are exposed to high levels over many years.



A photo of two long-term radon testing devices deployed at NASPRC.

The radon detectors being utilized are extremely sensitive and may result in “false positives” if tampered with or exposed to unusual conditions. That is why the initial radon results undergo a complex quality assurance/quality control (QA/QC) analysis. Any locations having invalid or positive results that fall outside of QA/QC protocols will be retested with short-term (2-7 day) equipment. Once the entire survey has been analyzed and results confirmed, they will be released to all personnel in conformance with the NASPRC risk communication procedures.



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If a building is found to have one or more locations with valid and confirmed radon levels measured at or above the EPA action level of 4 pCi/L, further investigation will be performed to determine an appropriate mitigation strategy. These investigations typically include inspection of the HVAC or air handling system to determine whether a repair or balancing is needed, or whether an energy management system needs adjustment during occupied hours. For example, Radon gas entry may be reduced simply by reducing negative air pressure in a basement or supplying fresh air into the HVAC system.

Because of the diverse styles and construction types of Navy buildings, a single “one size fits all” mitigation approach to fixing excessive radon gas intrusion is unlikely if mitigation measures are needed. Therefore, building-specific follow-up investigations and diagnostics (e.g., additional measurements) shall be conducted to ensure that an appropriate mitigation method is implemented.

The following schedule for radon mitigation shall be implemented per Navy guidance:

Radon Level (pCi/L)	Action
0 to <4	No action required
4 to <20	Mitigation within 2 years
20 to < 200	Mitigation within 6 months
≥200	Mitigation within 2 weeks

*Corrective action begins from the initial report date.

To learn more about radon and this survey, visit the following website:

www.cniv.navy.mil/NASPRCRadon