

# Carlsbad Caverns National Park

## National Institute for Occupational Safety and Health: Frequently Asked Questions

### **Why was the report done?**

In April, the National Institute for Occupational Safety and Health (NIOSH) Health Hazard Evaluation Program completed a report, which studied levels of radon gas in some areas within Carlsbad Caverns National Park. In 2014, the National Park Service contacted NIOSH for technical assistance to study radon concentrations in the main cavern, the attached visitor's center, Spider Cave and in other park administrative buildings, building off previous studies from the 1970s.

### **What were the findings?**

None of the radon gas concentrations measured in the visitor center, main caverns or administrative areas were above the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL). The radon gas concentrations for the federal administrative and visitor center buildings were also below the General Services Administration standard.

The visitor center and main cavern did contain radon concentrations above the Environmental Protection Agency (EPA) action level for homes and schools; however, the EPA action level is not applicable for the park's environments. The report did find elevated radon levels within Spider Cave, however, given the amount of time employees spend in that cave their exposure would be below the OSHA PEL. The report also included lung dose modeling to estimate radon exposure to employees. Dose modeling for ionizing radiation showed that most employees were below radiation dose limits.

The National Park Service is not the technical expert on methodology used by the National Institute for Occupational Safety in their report. For information on the report, please contact Nura Sadeghpour ([uv2@cdc.gov](mailto:uv2@cdc.gov)) and Stephanie Stevens ([yky0@cdc.gov](mailto:yky0@cdc.gov)).

### **What is being done to address the findings?**

The National Park Service is immediately taking steps to implement high priority elements of the NIOSH report including:

- Confirming or adjusting National Park Service and concessioner work schedules to adhere to the NIOSH recommended hours in the summer and winter in the main cavern
- Posting signs in accordance with federal code indicating airborne radioactivity
- Training employees about the risks of radon exposure

The National Park Service will be developing further actions to address the NIOSH recommendations including:

- Enhancing the radon-exposure mitigation program for employees; including additional tracking
- Developing an evaluation plan for other accessible caves within the park that were not studied in the NIOSH report
- Seeking engineering support to review the building and heating, ventilation and air conditioning system recommendations for the visitor center.

The NPS will be working with subject matter experts at NIOSH, Department of the Interior Occupational Health, and the US Public Health Service as it reviews the report, develops an action plan, and implements the recommendations.

**What should I do if I think I may have been exposed to elevated levels of radon?**

Employees who think they may have been exposed to an elevated level of radon should enter a record in the Safety Management Information System (SMIS) at [www.smis.doi.gov](http://www.smis.doi.gov) (through Google Chrome). Select DOI Employee Sign In and enter the report as an EXPOSURE. Include as much data as you have in the narrative sections.

This is NOT a CA1 or CA2, it is a record of exposure. The employee should print a copy of the report for their records. The exposure record is also maintained in the permanent data in SMIS.

If, in the future, an employee develops an illness that they believe is due to radon exposure, they would enter a CA2 Workers Compensation Claim. The Exposure report in SMIS will serve to document their earlier exposure to radon.

**Where can I find additional resources:**

The National Park Service plans to continue to reach out to employees as we learn more. Should you have specific safety questions, please feel free to contact Dave Kane, Intermountain Region Chief of Safety, Health, and Wellness at (303) 969-2702 or via email at [david\\_kane@nps.gov](mailto:david_kane@nps.gov).

In the interim, we've listed a few resources below for reference.

- Radon Tox FAQs  
<https://www.atsdr.cdc.gov/toxfaqs/tfacts145.pdf>
- Public Health Statement for Radon  
<https://www.atsdr.cdc.gov/PHS/PHS.asp?id=405&tid=71>
- ToxGuide for Radon  
<https://www.atsdr.cdc.gov/toxguides/toxguide-145.pdf>