



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 7, 2016

ALL AGREEMENT AND NON-AGREEMENT STATES  
STATE LIAISON OFFICERS

NOTIFICATION OF ACTIONS TO ADDRESS NON-MILITARY SITES WITH THE POTENTIAL  
HISTORIC RADIUM CONTAMINATION (STC-16-080)

**Purpose:** To inform the States of non-military radium sites with potential historic radium contamination and the U.S. Nuclear Regulatory Commission (NRC) actions to coordinate with States, obtain additional site information, conduct surveys, and evaluate future actions at the sites.

**Background:** In 2013, the NRC staff initiated an effort to find non-military sites with the potential for radium contamination by identifying historic manufacturers of radium-containing consumer products, with a focus on sites in non-Agreement States. The goal of the effort was to identify sites in NRC's jurisdiction where radium was used and to plan a comprehensive and consistent approach to determine if contamination exists today at these sites.

Following identification of radium contamination at two non-military sites in 2013, NRC staff contracted with Oak Ridge National Laboratory (ORNL) to identify additional non-military sites with potential radium contamination. The scope of the ORNL effort included searching publicly available records to identify, describe, and prioritize sites where the manufacturing of products that contained radium has historically occurred. Since commercial use of radium came to an end in the 1970s, and the NRC did not assume regulatory authority over radium until 2005, these sites were never licensed or inspected by the NRC or its predecessor agency, the Atomic Energy Commission.

**Discussion:**

Non-Agreement States

The ORNL search identified sites with either confirmed or suspected historic radium use. Confirmed sites are those where radium is known to have been present at the site based on either historic records of radium use or radiological surveys. Suspected sites are those where radium was not explicitly documented to have been present, but may have been, based on the historic use of the site. The amount and extent of radium contamination at sites identified by ORNL is unknown at this time because of the limitations in the publicly available information collected for these sites. Following the completion of ORNL's effort, the NRC staff worked with the non-Agreement States to share information about the sites identified, and to obtain additional information about past site activities and any radiological cleanup activities that may have occurred.

The NRC will continue to perform outreach, on an individual basis, to each non-Agreement State with identified sites. Based on information provided by the non-Agreement States during this outreach, the NRC will determine if follow-up actions are warranted. Follow-up actions may include conducting radiological surveys, establishing site access controls, and working with site owners on remediation, where applicable. Since many non-Agreement States have prior experience with radium contamination and clean-up, staff has collaborated with the States to share best practices.

#### Agreement States

As part of its site identification, ORNL collected information about potential sites of interest within Agreement States. NRC staff provided this site-specific information to the Agreement States in July 2016, so that the Agreement States can take any follow-up actions necessary. Additionally, the NRC staff hosted two webinars to share information regarding the NRC staff's approach to non-military with both Agreement and non-Agreement States. Since many Agreement States have prior experience with radium contamination and clean-up, staff has collaborated with the States to share best practices. Following the issuance of this letter, the NRC staff will post information regarding its approach to non-military radium on the NRC public website at: <http://www.nrc.gov/materials/radium.html>.

If you have any questions regarding this communication or could provide lessons learned with regard to radium remediation activities in your State, beyond the outreach that has already occurred, please contact me at (301) 415-3340 or the individual named below:

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