

## **Regulatory Guide Periodic Review**

Regulatory Guide Number: **1.132, Revision 2**

Title: **Site Investigation for Foundations of Nuclear Power Plants**

Office/Division/Branch: **RES/DE/SGSEB**

Technical Lead: **Scott Stovall**

Recommended Staff Action: **Reviewed with no issues identified**

**1. What are the known technical or regulatory issues with the current version of the RG?**

No significant regulatory or technical issues were identified in the periodic five year review of RG 1.132. The RG is useable as is. Section C, Regulatory Position, is written at a high level. The principal technical basis documents are NUREG/CR 5738 "Field Investigation for Foundations of Nuclear Power Plants," written by the US Army Corps of Engineers, and Manuals developed for the Corps. The methodology found in the NUREG/CR report and the manuals consists of standard geotechnical procedures based on long-term engineering experience and the only need for future review would be to see if there were significant changes in the methodology and updating of references. One of the references (RG 1.165) was withdrawn in 2010. RG 1.208 is not cited in the RG and consideration should be given to using it to replace the withdrawn RG.

References:

RG 1.165, "Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion"

RG 1.208, "A Performance-Based Approach to Define the Sites-Specific Earthquake Ground Motion"

**2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of numbers of licensing and inspection activities?**

There are no license applications for large commercial nuclear power plants anticipated in the near future (next three to five years) that would require the guidance found in RG 1.132. For small modular reactors, only two applications are anticipated in the next several years. However, the methodology in RG 1.132 is based on long-term practical geotechnical experience and there are no changes anticipated for the methodology that would impact small modular reactor licensing.

**3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?**

None needed at this time.

- 4. Based on the answers to the questions above, what is the recommended staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?**

Reviewed with no issues identified.

- 5. If a RG should be revised, provide a conceptual plan and timeframe to accomplish this.**

Not applicable.

**NOTE: This review was conducted in July 2014 and reflects the staff's plans as of that date. These plans are tentative and subject to change.**