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[7590-01-P]

## NUCLEAR REGULATORY COMMISSION

[NRC-2012-0271]

### Expanded River Reconnaissance Paleoliquefaction Study Area

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) has prepared an Environmental Assessment (EA) to evaluate the potential environmental impacts that may arise as a result of additional geologic field work for a paleoliquefaction research project. The NRC has determined that there will be no adverse effects to any historic or cultural resources that may be located in the paleoliquefaction study's area of potential effects. The NRC has also concluded that a Finding of No Significant Impact (FONSI) is appropriate.

**DATES:** [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** Please refer to Docket ID **NRC-2012-0271** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0271**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):**  
You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced (if it available in ADAMS) is provided the first time that a document is referenced. The EA and the associated FONSI is publicly available in ADAMS under Accession No. ML15275A424.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Thomas Weaver, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2383; e-mail: [Thomas.Weaver@nrc.gov](mailto:Thomas.Weaver@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Introduction.**

On November 2, 2012, the NRC issued a FONSI for field work to support paleoliquifaction studies along certain river segments located in Kentucky, Missouri, Tennessee, Arkansas, Mississippi, and Virginia. The NRC provided notice of the FONSI and the supporting EA upon which the FONSI was based, in a *Federal Register* notice dated November 7, 2012 (77 FR 66874). The NRC has identified additional river segments in Missouri, Arkansas, and Mississippi where the NRC will conduct additional field work of the same nature described in its 2012 EA. This field work will study geologic features such as sand blows and sand dikes that formed during historic and pre-historic earthquakes as a result of soil liquefaction, which is the process of water pressure increasing in the soil due to cyclic shaking with an associated significant decrease in soil strength. The results from this research will be used to update models implemented in probabilistic seismic hazard analyses, which are used in evaluating sites for new nuclear power reactors to characterize ground motions in accordance with section 100.23(d)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR). These results may also be used for future seismic hazard evaluations for existing nuclear power reactors.

The NRC has prepared an EA to evaluate the potential environmental impacts that may arise as a result of this research project in accordance with the requirements of 10 CFR part 51, the NRC's regulations that implement Section 102(2) of the National Environmental Policy Act of 1969, as amended. Based on the EA, and in accordance with 10 CFR 51.31(a), the NRC has concluded that a FONSI is appropriate. Field work for this project will commence following publication of this Notice.

## **II. EA Summary.**

The NRC has prepared the EA to evaluate the potential environmental impacts of the field work to be performed along select river segments for this project. In accordance with Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), the

NRC staff requested informal consultation with the United States Fish and Wildlife Service. No concerns were identified for Federally listed species or designated critical habitat. This project is temporary, minimally invasive, and will occur outside the critical nesting times for migratory birds. Further, researchers will avoid mussel beds and active nests, and will minimize disturbance to vegetation.

Similarly, the NRC determined that there will be no adverse effects to any historic or cultural resources that may be located in the paleoliquefaction study's area of potential effects within the states of Arkansas, Missouri and Mississippi. The Arkansas, Mississippi, and Missouri State Historic Preservation Officers have concurred with this finding.

Finally, the NRC has determined that there will be no significant impacts to any other resource areas (e.g., surface water, groundwater, air quality) as a result of the proposed field work.

### **III. Finding of No Significant Impact.**

On the basis of the EA and as further described in the FONSI, the NRC has concluded that there are no significant environmental impacts from the proposed field work and has determined not to prepare an environmental impact statement.

Dated at Rockville, Maryland this 5<sup>th</sup> day of October, 2015.

For the Nuclear Regulatory Commission.

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