



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-295 and 50-304; NRC-2016-0271]

ZionSolutions, LLC

Zion Nuclear Power Station, Units 1 and 2

AGENCY: Nuclear Regulatory Commission.

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

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to Facility Operating License Nos. DPR-39 and DPR-48, held by *ZionSolutions, LLC* for the operation of Zion Nuclear Power Station, Units 1 and 2 (ZNPS). The proposed action would revise the ZNPS Defueled Station Emergency Plan to reflect transfer of all spent nuclear fuel to a dry cask independent spent fuel storage installation (ISFSI).

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

ADDRESSES: Please refer to Docket ID NRC-2016-0271 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-2016-0271. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: 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. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **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: John Hickman, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-3017, e-mail: John.Hickman@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering issuance of an amendment to Facility Operating License Nos. DPR-39 and DPR-48, held by *Zion Solutions, LLC. (ZS)* for the operation of Zion Nuclear Power Station, Units 1 and 2 (ZNPS) located in Lake County, Illinois. Therefore, as required by section 51.21 of title 10 of the *Code of Federal Regulations*, the NRC performed an environmental assessment (EA). Based on the results of the EA that follows, the NRC has determined not to

prepare an environmental impact statement (EIS) for the amendment, and is issuing a finding of no significant impact (FONSI).

II. Environmental Assessment

Description of the Proposed Action

The proposed action would revise the ZNPS Defueled Station Emergency Plan (DSEP) and Permanently Defueled Emergency Action Level (EAL) Bases Document to reflect all spent fuel being transferred to an ISFSI at the site. The new emergency plan would be titled, "Zion Station ISFSI Emergency Plan" (ZS ISFSI EP).

The proposed action is requested by the licensee's application dated January 7, 2016, (ADAMS Accession No. ML16008B080), as supplemented by letter dated June 22, 2016, (ADAMS Accession No. ML16176A208).

Need for the Proposed Action

The ZNPS is a permanently defueled nuclear power facility that has permanently ceased operations and is storing generated spent fuel onsite in an ISFSI. The licensee requested that the NRC review and approve the changes from the current ZNPS DSEP to the proposed Revision 0 to the ZS ISFSI EP. The major changes from the current ZNPS DSEP to the proposed Revision 0 to the ZS ISFSI EP include: removal of non-ISFSI related emergency event types; transfer responsibility for implementing the emergency plan to ISFSI Management, a revision to the Emergency Response Organization to reflect a potential event impacting spent fuel stored in ISFSI at the site, and removal of EALs for the permanently defueled nuclear power plant.

Environmental Impacts of the Proposed Action

The NRC has completed its EA of the proposed amendment. The NRC has concluded that the proposed changes from the current ZNPS DSEP to the proposed Revision 0 to the ZS ISFSI EP to reflect the transfer of all the spent nuclear fuel to a dry cask ISFSI would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the Defueled Safety Analysis Report. There will be no change to radioactive effluents that effect radiation exposures to plant workers and members of the public. No changes will be made to plant buildings or the site property. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed amendment.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Stevens Act are expected. There are no impacts to the air or ambient air quality. There are no impacts to historical and cultural resources. There would be no noticeable effect on socioeconomic conditions in the region. Therefore, no changes or different types of non-radiological environmental impacts are expected as a result of the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those previously considered in the “Final Environmental Impact Statement related to the proposed Zion Nuclear Power Station, Units 1 and 2,” dated December 8, 1972 (ADAMS Accession No. ML15344A360).

Agencies and Persons Consulted

On October 6, 2016, the staff consulted with the Illinois State official, Ms. Kay Foster, regarding the proposed action. The state official had no comments on the conclusions in the EA and the FONSI.

III. Finding of No Significant Impact

The NRC has determined not to prepare an EIS for the proposed action. Amending the licenses to revise the current ZNPS DSEP to the proposed Revision 0 to the ZS ISFSI EP to reflect the transfer of all the spent nuclear fuel to a dry cask ISFSI will not result in any significant radiological or non-radiological environmental impacts. Therefore the proposed

action will not have a significant effect on the quality of the human environment. Accordingly, on the basis of the EA in Section II above, which is incorporated by reference herein, the NRC has determined that a FONSI is appropriate.

Dated at Rockville, Maryland, this 15th day of December, 2016.

For the Nuclear Regulatory Commission.

John R. Tappert, Director
Division of Decommissioning, Uranium Recovery,
and Waste Programs,
Office of Nuclear Material Safety
and Safeguards.

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