



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-295 and 50-304; NRC-2015-0087]

ZionSolutions, LLC, Zion Nuclear Power Station, Units 1 and 2

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption from certain emergency planning requirements in response to a June 20, 2012, request from ZionSolutions, LLC. The requirements were part of a final rule that the NRC issued on November 23, 2011.

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

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FOR FURTHER INFORMATION CONTACT: John B. 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.

I. Background.

Zion Nuclear Power Station (ZNPS) Units 1 and 2 were permanently shut down in February 1998, for economic reasons, and the licensee placed the plant in SAFSTOR. The licensee isolated the spent fuel pool (SFP) within its Fuel Building and established a spent fuel pool nuclear island with SFP-dedicated support systems. In 1999, the NRC issued an exemption from certain requirements in part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR), for the ZNPS licensee to discontinue offsite emergency planning activities and to reduce the scope of onsite emergency planning. In September 2010, the licensed ownership,

management authorities, and decommissioning trust fund of the permanently shut down facility was transferred to ZionSolutions (ZS), a subsidiary of EnergySolutions, for the purpose of completing all decommissioning activities with the end goal of full site restoration. Active decommissioning is currently underway.

The NRC's emergency planning (EP) regulations provide in part that no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Additionally, the NRC's EP regulations establish minimum requirements for emergency plans for use in attaining an acceptable state of emergency preparedness.

On November 23, 2011 (76 FR 72560), the NRC issued a Final Rule amending certain EP requirements for licensees of nuclear power and non-power reactors. The Final EP Rule was effective on December 23, 2011.

The Final EP Rule modified or added several EP requirements in 10 CFR part 50, including changes in 10 CFR 50.47, 10 CFR 50.54, and appendix E. The Final EP Rule codified certain voluntary protective measures contained in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," and made generically applicable requirements similar to those previously imposed by NRC Order EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures," dated February 25, 2002.

In addition, the Final EP Rule amended other licensee emergency plan requirements to:

- 1) enhance the ability of licensees in preparing and in taking certain protective actions in the event of a radiological emergency;
- 2) address, in part, security issues identified after the terrorist events of September 11, 2001;
- 3) clarify regulations to effect consistent emergency

plan implementation among licensees; and 4) modify certain EP requirements to be more effective and efficient.

II. Request/Action.

By letter dated June 20, 2012, (ADAMS Accession No. ML12173A316) ZS, submitted a request for exemption, "Request for Exemption to Revised Emergency Planning Rule," from specific emergency planning requirements of 10 CFR part 50 for the ZNPS.

III. Discussion.

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50 when 1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and 2) when special circumstances are present.

The NRC staff reviewed the licensee's request and determined that exemptions should be granted, or continue to be granted, from the following requirements: the requirement: "*arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made*" of 10 CFR 50.47(b)(3); the requirement: "*and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures*" of 10 CFR 50.47(b)(4); the requirements of 10 CFR 50.47(b)(10); the requirement, "*and onsite protective actions during hostile action*" of 10 CFR part 50, appendix E.IV.1; the requirement of 10 CFR part 50, appendix E, section IV.2; the requirements of 10 CFR part 50, appendix E, section IV.3; the requirements of 10 CFR part 50, appendix E, section IV.4; the requirements of 10 CFR part 50, appendix E, section IV.5;

the requirements of 10 CFR part 50, appendix E, section IV.6; the requirement: “*offsite*” of 10 CFR part 50, appendix E, section IV.A.4; the requirements: “*By June 23, 2014,*” and “*a description of the*” and “*including hostile action at the site. For purposes of this appendix, “hostile action” is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force*” of 10 CFR part 50, appendix E, section IV.A.7; the requirement of 10 CFR part 50, appendix E, section IV.A.9; the requirements: “*and outside,*” and “*and offsite,*” and “*By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant*” of 10 CFR part 50, appendix E, section IV.B.1; the requirements, “*By June 20, 2012,*” and “*within 15 minutes*” and “*to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety*” of 10 CFR part 50, appendix E, section IV.C.2; the requirements, “*within 15 minutes*” and “*The licensee shall demonstrate that the appropriate governmental authorities have the capability to make a public alerting and notification decision promptly on being informed by the licensee of an emergency condition. Prior to initial operation greater than 5 percent of rated thermal power of the first reactor at the site, each nuclear power reactor licensee shall demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public with the plume exposure pathway EPZ. The design objective of the prompt public alert and notification system shall be to have the capability to essentially complete the initial alerting and notification of the public within the plume exposure pathway EPZ within about 15 minutes. The use of this alerting and notification capability will range from immediate alerting and notification*”

of the public (within 15 minutes of the time that State and local officials are notified that a situation exists requiring urgent action) to the more likely events where there is substantial time available for the appropriate governmental authorities to make a judgment whether or not to activate the public alert and notification system. The alerting and notification capability shall additionally include administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15 minute design objective for the primary prompt public alert and notification system. When there is a decision to activate the alert and notification system, the appropriate governmental authorities will determine whether to activate the entire alert and notification system simultaneously or in a graduated or staged manner. The responsibility for activating such a public alert and notification system shall remain with the appropriate governmental authorities”

of 10 CFR part 50, appendix E, section IV.D.3; the requirements of 10 CFR part 50, appendix E, section IV.D.4; the requirement: “and an emergency operations facility” of 10 CFR part 50, appendix E, section IV.E.8.a.(i); the requirement: of 10 CFR part 50, appendix E, section IV.E.8.a.(ii); the requirements of 10 CFR part 50, appendix E, section IV.E.8.b; the requirements of 10 CFR part 50, appendix E, section IV.E.8.c; the requirements of 10 CFR part 50, appendix E, section IV.E.8.d; the requirement of 10 CFR part 50, appendix E, section IV.E.8.e; the requirements of 10 CFR part 50, appendix E, section IV.F.2.a; the requirements: “Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in an exercise required by this paragraph 2.b. The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section” and the requirements

“and offsite” and “(Technical Support Center (TSC), Operations Support Center (OSC), and the Emergency Operations Facility (EOF))” of 10 CFR part 50, appendix E, section IV.F.2.b; the requirements of 10 CFR part 50, appendix E, section IV.F.2.c; the requirements of 10 CFR part 50, appendix E, section IV.F.2.d; the requirement: “Such scenarios for nuclear power reactor licensees must include a wide spectrum of radiological releases and events, including hostile action” of 10 CFR part 50, appendix E, section IV.F.2.i; the requirements of 10 CFR part 50, appendix E, section IV.F.2.j; and the requirement of 10 CFR part 50, appendix E, section IV.I.

The exemption request was reviewed against the acceptance criteria included in 10 CFR 50.47, appendix E to 10 CFR part 50, 10 CFR 72.32 and Interim Staff Guidance – 16. The review considered the permanently shut-down and defueled status of the reactor, and the low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures. These evaluations were supported by the previously documented licensee and staff accident analyses. The staff concludes that the Defueled Station Emergency Plan for ZNPS provides: 1) an adequate basis for an acceptable state of emergency preparedness, and 2) in conjunction with arrangements made with offsite response agencies, provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the ZNPS Site.

The Commission has concluded that the licensee’s request for an exemption from certain requirements of 10 CFR 50.47(b) and 10 CFR part 50, appendix E, section IV as specified above are acceptable in view of the greatly reduced offsite radiological consequences associated with the current plant status as permanently shut-down.

The NRC has determined that other requirements from which ZS requested exemptions were not applicable to the ZNPS or are being met by the ZNPS Defueled Station Emergency

Plan or an exemption was not appropriate. Therefore, an exemption was not necessary or was denied for those requirements. Additional information regarding the staff's evaluation is documented in a Safety Evaluation Report (ADAMS Accession No. ML14272A315).

A. *Exemption is Authorized by Law*

The NRC has found that ZS meets the criteria for an exemption in § 50.12. The NRC has determined that granting the exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

B. *The Exemption Presents No Undue Risk to Public Health and Safety and is Consistent with the Common Defense and Security*

As noted in Section II, "Request/Action," above, ZS's compliance with the EP requirements in effect before the effective date of the Final EP Rule demonstrated reasonable assurance of adequate protection of the public health and safety and common defense and security. In the Safety Evaluation Report, the NRC staff explains that ZS's implementation of the ZNPS Defueled Station Emergency Plan, with the exemptions, will continue to provide this reasonable assurance of adequate protection. Thus, granting the exemptions will not present an undue risk to public health or safety and is not inconsistent with the common defense and security.

C. *Special Circumstances Are Present*

For the Commission to grant an exemption, special circumstances must exist. Under § 50.12(a)(2)(ii), special circumstances are present when [a]pplication of the regulation in the

particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. These special circumstances exist here. The NRC has determined that ZS's compliance with the regulations listed above is not necessary for the licensee to demonstrate that, under its emergency plan, there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Consequently, special circumstances are present because requiring ZS to comply with the regulations listed above is not necessary to achieve the underlying purpose of the EP regulations.

D. Environmental Considerations

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact related to this exemption was published in the *Federal Register*. Based upon the environmental assessment, the Commission has determined that issuance of this exemption will not have a significant effect on the quality of the human environment.

IV. Conclusion.

The NRC staff reviewed the licensee's submittals and concludes that the licensee's request for an exemption from certain requirements in 10 CFR 50.47(b) and appendix E to 10 CFR part 50 as specified above are acceptable in view of the greatly reduced offsite radiological consequences associated with the current plant status as permanently shut down.

The Commission has determined that, pursuant to 10 CFR 50.12, the exemptions are authorized by law, will not present an undue risk to the public health and safety, are consistent with the common defense and security, and special circumstances are present in that compliance with the specified regulations is not necessary for reasonable assurance that

adequate protective measures can and will be taken in the event of a radiological emergency at the ZNPS facility based on its permanently shut down condition.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 30th day of March, 2015.

For the Nuclear Regulatory Commission.

Larry W. Camper, Director,
Division of Decommissioning, Uranium Recovery
and Waste Programs,
Office of Nuclear Material Safety
and Safeguards.

[FR Doc. 2015-08676 Filed: 4/15/2015 08:45 am;

Publication Date: 4/16/2015]