

NUCLEAR REGULATORY COMMISSION
ZIONSOLUTIONS, LLC
DOCKET NOS. 50-295 AND 50-304
ZION NUCLEAR POWER STATION, UNITS 1 AND 2
EXEMPTION FROM RECORDKEEPING REQUIREMENTS
[NRC-2011-0145]

1.0 BACKGROUND

Zion Nuclear Power Station (ZNPS or Zion), Unit 1, is a Westinghouse 3250 MWt Pressurized Water Reactor which was granted Operating License No. DPR-39 on October 19, 1973, and subsequently shut down on February 21, 1997. Zion, Unit 2, is also a Westinghouse 3250 MWt Pressurized Water Reactor which was granted Operating License No. DPR-48 on November 14, 1973, and was shut down on September 19, 1996. Zion is located in Lake County, Illinois.

In February 1998, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(1)(i), the licensee certified to the U.S. Nuclear Regulatory Commission (NRC or the Commission) that as of February 13, 1998, operations had ceased at Zion, Units 1 and 2. The licensee later certified, pursuant to 10 CFR 50.82(a)(1)(ii), that all fuel had been removed from the reactor vessel of both units, and committed to maintaining the units in a permanently defueled status. Therefore, pursuant to 10 CFR 50.82(a)(2), operations at Zion are no longer authorized under the 10 CFR Part 50 licenses.

On September 1, 2010, the facility license was transferred from Exelon to *ZionSolutions* for the express purpose of expediting the decommissioning of the site. *ZionSolutions* intends to

use a process that will reduce the labor-intensive separation of contaminated materials and transport the facility in bulk to the EnergySolutions disposal site in Utah. Preparations for decontamination and dismantlement have begun. Completion of fuel transfer to the independent spent fuel storage installation (ISFSI) is scheduled for 2014. Final site survey and license reduction to the ISFSI is currently planned for 2020.

2.0 REQUEST/ACTION

By letter dated February 28, 2011, as supplemented on April 5, 2011, *ZionSolutions* filed a request for NRC approval of an exemption from the record keeping requirements of 10 CFR 50.71(c); 10 CFR 50, Appendix A Criterion 1; 10 CFR 50, Appendix B Criterion XVII; and 10 CFR 50.59(d)(3).

ZionSolutions requested a permanent exemption from the record retention requirements of: (1) 10 CFR 50 Appendix A Criterion 1 which requires certain records be retained "throughout the life of the unit"; (2) 10 CFR 50 Appendix B Criterion XVII, which requires certain records be retained consistent with regulatory requirements for a duration established by the licensee; (3) 10 CFR 50.59(d)(3) which requires certain records be maintained until "termination of a license issued pursuant to" 10 CFR Part 50; and (4) 10 CFR 50.71(c) which requires certain records to be maintained consistent with various elements of the NRC regulations, facility technical specifications and other licensing bases documents. The licensee is proposing to eliminate the records when: (1) the licensing basis requirements previously applicable to the nuclear power units and associated systems, structures, and components (SSC) are no longer effective (e.g., removed from the Defueled Safety Analysis Report and/or Technical Specifications by appropriate change mechanisms); or (2) for SSCs associated with safe storage of fuel in the spent fuel pool (SFP), when spent nuclear fuel has been completely transferred from the SFP to dry storage, and the spent fuel building is ready for demolition and the associated licensing bases are no longer effective.

The licensee did not request an exemption associated with any record keeping requirements for storage of spent fuel at its future ISFSI under 10 CFR Part 50 or the general license requirements of 10 CFR Part 72.

3.0 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.

Decommissioning of the ZNPS has begun and the nuclear reactor and essentially all associated SSCs in the nuclear steam supply system and balance of plant that supported the generation of power have been retired in place and are being prepared for removal. The SSCs that remain operable are associated with the SFP and the spent fuel building, needed to meet other regulatory requirements, or needed to support other site facilities (e.g., radwaste handling, heating ventilation and air conditioning, etc). No remaining SSCs are classified as safety related. The SSCs related to safe storage of nuclear fuel are designated as Important to the Defueled Condition by the current licensing basis.

ZionSolutions' dismantlement plans involve evaluating SSCs with respect to the current facility safety analysis; progressively removing them from the licensing basis where necessary through appropriate change mechanisms (e.g., 10 CFR 50.59 or NRC-approved Technical Specification changes, as applicable); revising the Defueled Safety Analysis Report if and as necessary; and then proceeding with an orderly dismantlement. Dismantlement of the plant structures will also include dismantling existing records storage facilities.

While *ZionSolutions* intends to retain the records required by its license as the project transitions from the current plant conditions to fully dismantled with the fuel in dry storage, plant

dismantlement will obviate the regulatory and business needs for maintenance of most records. As the SSCs are removed from the licensing basis and the need for their records is, on a practical basis, eliminated, the licensee proposes that they be exempted from the records retention requirements for SSCs and historical activities that are no longer relevant eliminating the associated, unnecessary regulatory and economic burdens of creating alternative storage locations, relocating and retaining records for them.

All records necessary for spent fuel and spent fuel storage SSCs and activities have been, and will continue to be, retained for the SFP throughout its functional life. Similar to other plant records, once the SFP is emptied of fuel, drained and ready for demolition, there will be no safety-significant function or other regulatory need for retaining SFP related records. Also, similar to the power generation "footprint", the SFP SSC's "footprint" remains under the radiological controls provided by the Defueled Safety Analysis Report, Quality Assurance Project Plan, Physical Security Plan, and other programmatic elements as appropriate through final dismantlement.

Specific Exemption is Authorized by Law

Paragraph 50.71(d)(2) allows for the granting of specific exemptions to the record retention requirements specified in the regulations. Paragraph 50.71(d)(2) states, in part: "...the retention period specified in the regulations in this part for such records shall apply unless the Commission, pursuant to § 50.12 of this part, has granted a specific exemption from the record retention requirements specified in the regulations in this part."

If the specific exemption requirements of 10 CFR 50.12 are satisfied, the exemption from the record keeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix A; 10 CFR Part 50, Appendix B, and 10 CFR 50.59(d)(3) is authorized by law. The specific exemption requirements of 10 CFR 50.12 are discussed below.

Specific Exemption Will Not Present an Undue Risk to the Public Health and Safety

Removal of the underlying SSCs associated with the records has been or will be determined by the licensee to have no adverse public health and safety impact, in accordance with 10 CFR 50.59 or a NRC approved license amendment. Elimination of records for these removed SSCs can have no additional impact.

The partial exemption from the record keeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix A; 10 CFR Part 50, Appendix B; and 10 CFR 50.59(d)(3), for the records described above is administrative in nature and will have no impact on any remaining decommissioning activities or on radiological effluents. The exemption will merely advance the schedule for destruction of the specified records. Considering the content of these records, the elimination of these records on an advanced timetable will have no reasonable possibility of presenting any undue risk to the public health and safety.

Specific Exemption Consistent with the Common Defense and Security

The elimination of the recordkeeping requirements is administrative in nature and does not involve information or activities that could potentially impact the common defense and security of the United States. Upon dismantlement of the affected SSCs, the records have no functional purpose relative to maintaining the safe operation of the SSCs nor to maintaining conditions that would affect the ongoing health and safety of workers or the public.

Rather, the exemption requested is administrative in nature and would merely advance the current schedule for destruction of the specified records. Therefore, the partial exemption from the recordkeeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix A; 10 CFR Part 50, Appendix B; and 10 CFR 50.59(d)(3), for the types of records described above is consistent with the common defense and security.

Special Circumstances

Paragraph 50.12(a)(2) states, in part: “(2) The Commission will not consider granting an exemption unless special circumstances are present. Special circumstances are present whenever:

(ii) Application 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.”

Appendix A of 10 CFR 50, Criterion 1, states in part: “Appropriate records of the design, fabrication, erection, and testing of structures, systems, and components important to safety shall be maintained by or under the control of the nuclear power unit licensee throughout the life of the unit.”

Appendix B of 10 CFR 50, Criterion XVII, states in part: “Sufficient records shall be maintained to furnish evidence of activities affecting quality.”

Paragraph 50.59(d)(3) states in part: “The records of changes in the facility must be maintained until the termination of an operating license issued under this part...”

Paragraph 50.71(c), states in part: “Records that are required by the regulations in this part or Part 52 of this chapter, by license condition, or by technical specifications must be retained for the period specified by the appropriate regulation, license condition, or technical specification. If a retention period is not otherwise specified, these records must be retained until the Commission terminates the facility license...”

The common and underlying purpose for the records related regulations cited above is to ensure that the licensing and design basis of the facility is understood, documented, preserved and retrievable relative to establishing and maintaining the SSC’s safety functions for the life of the facility. These regulations, however, do not consider the reduction in safety related SSCs during the decommissioning process. Removal of the SSCs from the licensing basis has been, or will be, evaluated by the licensee in accordance with 10 CFR 50.59 or NRC-approved license amendment, to have no adverse public health and safety impact prior to

elimination of any records. Ultimately the SSCs will be physically removed from the facility. Elimination of associated records for these SSCs can have no additional impact. Retention of records associated with SSCs that are or will no longer be part of the facility serves no safety or regulatory purpose. Therefore, application of these record requirements in those circumstances does not serve the underlying purpose of the regulations.

Based on the above, the application of the subject record keeping requirements to the ZNPS' records specified above is not required to achieve the underlying purpose of the rule. Thus, special circumstances are present which the NRC may consider, pursuant to 10 CFR 50.12(a)(2)(ii), to grant the requested exemption.

4.0 CONCLUSION

Section 50.12 allows the Commission to grant specific exemptions to the record retention requirements specified in 10 CFR Part 50 provided the requirements of 10 CFR 50.12 are satisfied.

The staff has determined that the requested partial exemption from the record keeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix A; 10 CFR Part 50, Appendix B; and 10 CFR 50.59(d)(3) will not present an undue risk to the public health and safety. The destruction of the identified records will not impact remaining decommissioning activities; plant operations, configuration, and/or radiological effluents; operational and/or installed SSCs that are quality-related or important to safety; or nuclear security.

The staff has determined that the destruction of the identified records is administrative in nature and does not involve information or activities that could potentially impact the common defense and security of the United States.

The staff has determined that the purpose for the record keeping regulations is to ensure that the licensing and design basis of the facility is understood, documented, preserved and retrievable relative to establishing and maintaining the SSC's safety functions for the life of the

facility. Since the ZNPS' SSCs that were safety-related or important-to-safety will be removed from the licensing basis and removed from the plant, the staff agrees that the records identified in the partial exemption will no longer be required to achieve the underlying purpose of the rule.

Therefore, the Commission grants *ZionSolutions* the requested partial exemption to the record keeping requirements of 10 CFR 50.71(c); 10 CFR Part 50, Appendix A; 10 CFR Part 50, Appendix B; and 10 CFR 50.59(d)(3), as described in the February 28, 2011, letter as supplemented on April 5, 2011.

The Commission has determined that this licensing action meets the categorical exclusion provision in 10 CFR Part 51.22(c)(25), as this action is an exemption from the requirements of the Commission's regulations, and (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involve recordkeeping requirements. Therefore, this action does not require either an environmental assessment or an environmental impact statement.

This exemption is effective upon issuance.

Dated at Rockville, Maryland this 22nd day of June 2011.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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