[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-498 and 50-499; NRC-2016-0092]

STP Nuclear Operating Company,

South Texas Project, 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 issuing an environmental assessment (EA) prepared under the National Environmental Policy Act of 1969 (NEPA) and NRC's regulations. This EA summarizes the results of the NRC staff's environmental review, which evaluates the potential environmental impacts of granting exemptions from NRC regulations in response to a request from STP Nuclear Operating Company (STPNOC, the licensee) for Facility Operating License Nos. NPF-76 and NPF-80, for South Texas Project (STP), Units 1 and 2, respectively, located in Matagorda County, Texas. The regulatory exemptions, if granted, allow STPNOC to change the licensing basis loss-of-coolant accident analysis identified in the Updated Final Safety Analysis Report to use a risk-informed approach to address safety issues discussed in Generic Safety Issue (GSI)-191 and to close Generic Letter (GL) 2004-02.

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

ADDRESSES: Please refer to Docket ID **NRC-2016-0092** 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-2016-0092**. 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. For the convenience of the reader, the ADAMS accession numbers are provided in a table in the "Availability of Documents" section of this document.
- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room 01-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Lisa Regner, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-1906, e-mail: Lisa.Regner@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction and Background

The NRC is considering a request to grant certain regulatory exemptions for Facility Operating License Nos. NPF-76 and NPF-80, issued to STPNOC for operation of STP, Units 1 and 2, located in Matagorda County, Texas, in accordance with section 50.12, "Specific exemptions," of title 10 of the *Code of Federal Regulations* (10 CFR), "Application for amendment of license, construction permit, or early site permit." The regulatory exemptions would allow STPNOC to resolve concerns associated with GSI-191, "Assessment of Debris Accumulation on PWR [Pressurized-Water Reactor] Sump Performance," and the associated GL 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors," issued on September 13, 2004.

Pursuant to 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments," the NRC has prepared an EA summarizing the findings of its NEPA review of the proposed action. The NRC concluded that the proposed action will have no significant environmental impact.

The NRC published a draft EA on the proposed action for public comment in the *Federal Register* on May 4, 2016 (81 FR 26838) (ADAMS Accession No. ML16032A387). No comments were received.

Background

The NRC established GSI-191 to determine whether the transport and accumulation of debris from a loss-of-coolant accident in the PWR containment structure would impede the operation of the emergency core cooling system (ECCS) or containment spray system (CSS). A loss-of-coolant accident within the containment structure is assumed to be caused by a break

in the primary coolant loop piping. Water discharged from the pipe break would collect on the containment structure floor and within the containment emergency sump. During this type of accident, the ECCS and CSS would initially draw cooling water from the refueling water storage tank. However, realigning the ECCS pumps to the containment structure emergency sump would provide long-term cooling of the reactor core. Therefore, successful long-term cooling depends on the ability of the containment structure emergency sump to provide adequate flow to the residual heat removal recirculation pumps for extended periods of time.

One of the concerns addressed by the implementation of GSI-191 is that debris, such as insulation installed on piping and components, within the containment structure could be dislodged by a jet of water and steam from a loss-of-coolant accident. Water, along with debris, would accumulate at the bottom of the containment structure and flow towards the emergency sump pumps. Insulation and other fibrous material could block the emergency sump screens and suction strainers, which in turn could prevent the ability of the containment emergency sump to provide adequate flow to the residual heat removal recirculation pumps (for more information, see NUREG-0897, “Containment Emergency Sump Performance”).

The NRC issued GL 2004-02 to address this safety concern by requesting PWR licensees, pursuant to 10 CFR 50.54(f), to use an NRC-approved methodology to perform a “mechanistic evaluation of the potential for the adverse effects of post-accident debris blockage and operation with debris-laden fluids to impede or prevent the recirculation functions of the ECCS and CSS following all postulated accidents for which the recirculation of these systems is required” and submit this information to the NRC for evaluation.

Subsequent to the issuance of GL 2004-02, the NRC staff identified another related concern with the potential for debris to bypass the sump strainers (even the new strainers) and enter the reactor core. This safety issue could result in the build-up of material on fuel assemblies and at the core inlet, inhibit heat transfer, and prevent adequate cooling of the reactor core. Since 2004, the NRC and industry have conducted tests to gain more information

on this concern. In 2012, the NRC staff developed three options for resolution of GSI-191, which are discussed in SECY-12-0093, "Closure Options for Generic Safety Issue 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," dated July 9, 2012.

The three options for demonstrating compliance with 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors," and considering the impact of debris on ECCS and CSS recirculation, are summarized as follows.

1. Option 1 allows the use of approved models and test methods.

2. Option 2 allows the industry to implement additional mitigating measures until resolution is completed and take additional time to resolve issues through further industry testing or use of a risk-informed approach. Use of this option has two alternative methods, including Option 2B, chosen by STPNOC, which allows development of a risk-informed approach to quantify the risk associated with this generic issue and submit a request to the NRC for a license amendment.

3. Option 3 allows the industry to separate the regulatory treatment of the sump strainer and in-vessel effects. The ECCS strainers will be evaluated using currently approved models, while in-vessel effects will be addressed using a risk-informed approach.

The STPNOC proposed to use Option 2 to demonstrate compliance with 10 CFR 50.46, and 10 CFR part 50, appendix A, General Design Criterion (GDC) 35, "Emergency core cooling," GDC 38, "Containment heat removal," and GDC 41, "Containment atmosphere cleanup," and to resolve GSI-191 for STP. The licensee proposed to use both a deterministic method, with plant-specific testing, and a risk-informed approach. Because, historically, the NRC staff has not allowed licensees to use a risk-informed approach to show compliance with the requirements of 10 CFR 50.46, and GDCs 35, 38, and 41, STPNOC requested exemptions from 10 CFR 50.46(a)(1) and the aforementioned GDCs, to allow the use of a risk-informed approach to resolve GSI-191. If approved, the proposed action would not authorize any

modifications within the containment structure, physical changes to the ECCS, or other modifications to the plant. Rather, the proposed action would only allow the use of an alternate methodology to show compliance with the regulations that require ECCS and CSS function during certain loss-of-coolant accident events.

II. Environmental Assessment

Description of the Proposed Action

The proposed action is to amend Facility Operating License Nos. NPF-76 and NPF-80 for STP, Units 1 and 2, and to grant regulatory exemptions requested by STPNOC. The regulatory exemptions would allow STPNOC to change the licensing basis loss-of-coolant accident analysis identified in the Updated Final Safety Analysis Report to use a risk-informed approach to address safety issues discussed in GSI-191 and to close GL 2004-02. If approved, no physical modifications to the nuclear plant or changes to reactor operations involving the ECCS would be required. The proposed action is in response to the licensee's application dated June 19, 2013, and supplemented by letters dated August 20, 2015, and April 13, 2016.

Need for the Proposed Action

As the holder of Facility Operating License Nos. NPF-76 and NPF-80, STPNOC is expected to address the safety issues discussed in GSI-191 and to close GL 2004-02 with respect to STP, Units 1 and 2. Consistent with SECY-12-0093, STPNOC chose an approach to use a risk-informed methodology. Since the NRC staff's position has long held that only deterministic or bounding calculations be used to show compliance with 10 CFR 50.46, and GDCs 35, 38, and 41, the STPNOC has requested that the NRC grant certain regulatory exemptions for STP, Units 1 and 2.

Special Circumstances

The NRC staff determined that special circumstances under 10 CFR 51.21 exist to prepare an EA for the proposed action because STP is the pilot plant to propose a risk-informed approach to resolve GSI-191 as recognized in Staff Requirement Memorandum SECY 12-0093, "Closure Options for Generic Safety Issue–191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," dated December 14, 2012. Because this is the first NRC review of the use of a risk-informed, instead of a deterministic, approach to determine that the ECCS and CSS structures, systems, and components will provide adequate cooling for the reactor core and containment during design-basis accidents in accordance with 10 CFR 50.46 and GDCs 35, 38, and 41, the NRC staff considered the issuance of an EA to be a prudent course of action that would further the purposes of NEPA.

Plant Site and Environs

The STP is located on approximately 12,220 acres (4,945 hectares) in rural and sparsely populated Matagorda County, Texas, approximately 70 miles (mi) [110 kilometers (km)] south-southwest of Houston. Nearby communities include Matagorda, approximately 8 mi (13 km) south of the site; the City of Palacios, 11 mi (18 km) west of the site; and Bay City, 13 mi (21 km) north of the site.

The STP power plant consists of two four-loop Westinghouse PWR units. The reactor core of each unit heats water, which is pumped to four steam generators, where the heated water is converted to steam. The steam is then used to turn turbines, which are connected to electrical generators that produce electricity. A simplified drawing of a PWR can be viewed at http://www.nrc.gov/reactors/pwrs.html.

The reactor, steam generators, and other components are housed in a concrete and steel containment structure (building). The containment structure is a reinforced concrete cylinder with a concrete slab base and hemispherical dome. A welded steel liner is attached to

the inside face of the concrete shell to ensure a high degree of leak tightness. In addition, the 4-foot (1.2-meter)–thick concrete walls of the containment structure serve as a radiation shield. Additional information on the plant structures and systems, as well as the environmental impact statement for license renewal, can be found in NUREG-1437, Supplement 48, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Supplement 48 Regarding South Texas Project, Units 1 and 2."

Environmental Impacts of the Proposed Action

Radiological and non-radiological impacts on the environment that may result from granting the regulatory exemptions are summarized in the following sections.

Radiological Impacts

Radioactive Gaseous and Liquid Effluents and Solid Waste

The STP uses waste treatment systems to collect, process, recycle, and dispose of gaseous, liquid, and solid wastes that contain radioactive material in a safe and controlled manner within NRC and Environmental Protection Agency radiation safety standards. Granting the regulatory exemptions will not result in any physical changes to the nuclear plant or reactor operations that would affect the types and quantities of radioactive material generated during plant operations; therefore, there will be no changes to the plant radioactive waste treatment systems. A detailed description of the STP radioactive waste handling and disposal activities is contained in Chapter 2.1.2 of Supplement 48 to NUREG-1437.

Radioactive Gaseous Effluents

The objectives of the STP gaseous waste management system (GWMS) are to process and control the release of radioactive gaseous effluents into the environment to be within the requirements of 10 CFR 20.1301, "Dose limits for individual members of the public," and to be

consistent with the as low as is reasonably achievable (ALARA) dose objectives set forth in appendix I to 10 CFR part 50. The GWMS is designed so that radiation exposure to plant workers is within the dose limits in 10 CFR 20.1201, “Occupational dose limits for adults.”

Granting the regulatory exemptions will not result in any physical changes to the nuclear plant or reactor operations; therefore, there will be no changes to the GWMS. The existing equipment and plant procedures that control radioactive releases to the environment will continue to be used to maintain radioactive gaseous releases within the dose limits of 10 CFR 20.1301 and the ALARA dose objectives in appendix I to 10 CFR part 50.

Radioactive Liquid Effluents

The function of the STP liquid waste processing system (LWPS) is to collect and process radioactive liquid wastes to reduce radioactivity and chemical concentrations to levels acceptable for discharge to the environment or to recycle the liquids for use in plant systems. The principal objectives of the LWPS are to collect liquid wastes that may contain radioactive material and to maintain sufficient processing capability so that liquid waste may be discharged to the environment below the regulatory limits of 10 CFR 20.1301 and consistent with the ALARA dose objectives in appendix I to 10 CFR part 50. The waste is routed through a monitor that measures the radioactivity and can automatically terminate the release in the event radioactivity exceeds predetermined levels. The liquid waste is discharged into the main cooling reservoir. The entire main cooling reservoir is within the STP site boundary and the public is prohibited from access to the area.

Granting the regulatory exemptions will not result in any physical changes to the nuclear plant or reactor operations; therefore, there will be no changes to the LWPS. The existing equipment and plant procedures that control radioactive releases to the environment will continue to be used to maintain radioactive liquid releases within the dose limits of 10 CFR 20.1301 and the ALARA dose objectives in appendix I to 10 CFR part 50.

Radioactive Solid Wastes

The function of the STP solid waste processing system (SWPS) is to process, package, and store the solid radioactive wastes generated by nuclear plant operations until they are shipped off site to a vendor for further processing or for permanent disposal at a licensed burial facility, or both. The storage areas have restricted access and shielding to reduce radiation rates to plant workers. The principal objectives of the SWPS are to package and transport the waste in compliance with NRC regulations in 10 CFR part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," and 10 CFR part 71, "Packaging and Transportation of Radioactive Material," and the U.S. Department of Transportation regulations in 49 CFR parts 170 through 179; and to maintain the dose limits of 10 CFR 20.1201, 10 CFR 20.1301, and appendix I to 10 CFR part 50.

Granting the regulatory exemptions will not result in any physical changes to the nuclear plant or reactor operations; therefore, the waste can be handled by the SWPS without modification. The existing equipment and plant procedures that control radioactive solid waste handling will continue to be used to maintain exposures within the dose limits of 10 CFR 20.1201, 10 CFR 20.1301, and 10 CFR part 50, appendix I.

Occupational Radiation Doses

The proposed action of granting the regulatory exemptions will not result in any physical changes being made to the nuclear plant or reactor operations; therefore, there will be no change to any in-plant radiation sources. The licensee's radiation protection program monitors radiation levels throughout the nuclear plant to establish appropriate work controls, training, temporary shielding, and protective equipment requirements so that worker doses will remain within the dose limits of 10 CFR part 20, subpart C, "Occupational Dose Limits." Granting the

regulatory exemptions will not change radiation levels within the nuclear plant and, therefore, will have no increased radiological impact to the workers.

Offsite Radiation Dose

The primary sources of offsite dose to members of the public from the STP are radioactive gaseous and liquid effluents. As discussed previously, there will be no change to the operation of the STP radioactive gaseous and liquid waste management systems or the ability to perform their intended functions. Also, there will be no change to the STP radiation monitoring system and procedures used to control the release of radioactive effluents in accordance with radiation protection standards in 10 CFR 20.1301, 40 CFR 190, "Environmental Radiation Protection Standards for Nuclear Power Operations," and the ALARA dose objectives in appendix I to 10 CFR part 50.

Based on the previous statements, the offsite radiation dose to members of the public would not change and would continue to be within regulatory limits, and, therefore, granting the regulatory exemptions will not change offsite dose levels and, consequently, the health effects of the proposed action will not be significant.

Design-Basis Accidents

Design-basis accidents at STP, Units 1 and 2, are evaluated by both the licensee and the NRC to ensure that the units can withstand the spectrum of postulated accidents without undue hazard to the public health and safety and the protection of the environment.

Separate from its environmental review in this EA, the NRC staff is evaluating the licensee's technical and safety analyses provided in support of the proposed action of granting the exemption requests to ensure that, following the proposed action, the licensee will continue to meet the NRC regulatory requirements for safe operation. The results and conclusion of the NRC staff's safety review will be documented in a publicly available safety evaluation. If the

NRC staff concludes in this safety evaluation that taking the proposed action will (1) provide reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) provide reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) not be inimical to the common defense and security or to the health and safety of the public, then the proposed action will also not have a significant environmental impact. The NRC will not take the proposed action absent such a safety conclusion.

Radiological Cumulative Impacts

The radiological dose limits for protection of the public and plant workers have been developed by the NRC and the Environmental Protection Agency to address the cumulative impact of acute and long-term exposure to radiation and radioactive material. These dose limits are codified in 10 CFR part 20, "Standards for Protection Against Radiation," and 40 CFR part 190.

Cumulative radiation doses are required to be within the limits set forth in the regulations cited in the previous paragraph. Granting the exemptions will not require any physical changes to the plant or plant activities, there will not be changes to in-plant radiation sources, and offsite radiation dose to members of the public will not change. Therefore, the NRC staff concludes that there would not be a significant cumulative radiological impact from the proposed action.

Radiological Impacts Summary

Based on these radiological evaluations, the proposed action of granting the exemptions would not result in any significant radiological impacts. Therefore, if the NRC staff concludes in its separate safety evaluation that taking the proposed action will (1) provide reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) provide reasonable assurance that such activities will be conducted in

compliance with the Commission's regulations, and (3) not be inimical to the common defense and security or to the health and safety of the public, then the proposed action will not have a significant radiological impact.

Non-Radiological Impacts

No physical modifications to the nuclear plant or changes to reactor operations involving the ECCS would be required if the NRC were to grant the regulatory exemptions. Also, no physical changes would be made to other structures or land use within the STP site. Non-radiological liquid effluents or gaseous emissions would not change and therefore environmental conditions at the STP site also would not change. In addition, granting the regulatory exemptions would not result in changes to the use of resources (e.g., visual, terrestrial, or aquatic) or cause any new environmental impacts (e.g., noise). Further, granting the regulatory exemptions does not change the operation of the reactor, the heat load dissipated to the environment, or the amount of non-radiological waste.

Therefore, there would be no non-radiological environmental impacts to any resource or any irreversible and irretrievable commitments of resources.

Non-Radiological Cumulative Impacts

Since granting the regulatory exemptions would not result in environmental effects, there would be no cumulative impact.

Environmental Impacts of the Alternatives to the Proposed Action

As discussed earlier, licensees have options in responding to GL 2004-02 and demonstrating compliance with 10 CFR 50.46 considering the impacts of debris on the emergency core cooling system. Consistent with these options and as an alternative to the proposed action, the licensee could choose to not pursue exemptions (Options 1 and 3).

Depending on the results of its analysis, the licensee would instead remove fibrous insulation to reduce the debris loading and the potential for clogging the containment sumps, and would replace insulation within the reactor containment building. This alternative would involve the physical removal and disposal of significant amounts of insulation from a radiation area within the reactor containment building and replacement with insulation less likely to impact sump performance. This would be considered the "no action alternative" in that it would not require exemptions (actions) from the NRC.

Removal of the existing insulation from the containment building would generate radiologically contaminated waste. The STPNOC estimated that 4,620 cubic feet of insulation would be removed and stored onsite until disposal. The old insulation would require special handling and packaging so that it could be safely transported from the STP site. The licensee's existing low-level radioactive and hazardous waste handling and disposal activities would likely be used to process and store this waste material. The old insulation would then be transported to a low-level radioactive or hazardous waste disposal site. Energy (fuel) would be expended to transport the insulation and land would be expended at the disposal site.

The removal of the old insulation and installation of the new insulation would expose workers to radiation. In its application, STPNOC estimates that this would result in an additional collective radiation exposure of 158-176 person-roentgen equivalent man (rem) over its baseline collective radiation exposure. The NRC staff reviewed NUREG-0713, Volume 34, "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2012: Forty-Fifth Annual Report," and determined that STPNOC's average baseline collective radiation exposure is approximately 90 person-rem. This additional 158-176 person-rem collective exposure would be shared across the entire work force involved with removing and reinstalling insulation.

In SECY-12-0093, the NRC staff attempted to develop a total occupational dose estimate for the work involved in insulation removal and replacement associated with GSI-191.

Due to uncertainties in the scope of work required to remove and replace insulation at a specific nuclear plant and other site-specific factors such as source term and hazardous materials, the NRC staff was unable to estimate the total occupational dose associated with this work. However, dose estimates were provided by the Nuclear Energy Institute (NEI) in a letter to the NRC dated March 30, 2012, based on information collected on occupational radiation exposures that have been, or could be, incurred during insulation removal and replacement. In the letter, NEI noted similar difficulties to those experienced by the NRC staff in estimating the potential amount of radiation exposure, but provided a "per unit" estimate of between 80 to 525 person-rem. The NRC staff ultimately concluded that the NEI estimates were reasonable given the uncertainties in the scope of work and other nuclear plant site-specific factors such as source term and hazardous materials. Therefore, since STPNOC's estimate of radiation exposure for insulation removal and replacement is within the NEI estimated range, the NRC staff considers STPNOC's estimate of an increase of 158-176 person-rem over the baseline exposure to be reasonable.

As stated in the "Occupational Radiation Doses" section of this document, STPNOC's radiation protection program monitors radiation levels throughout the nuclear plant to establish appropriate work controls, training, temporary shielding, and protective equipment requirements so that worker doses are expected to remain within the dose limits of 10 CFR 20.1201.

In addition, as stated in the "Offsite Radiation Dose" section of this document, STPNOC also has a radiation monitoring system and procedures in place to control the release of radioactive effluents in accordance with radiation protection standards in 10 CFR 20.1301, 40 CFR part 190, and the ALARA dose objectives in appendix I to 10 CFR part 50. Therefore, radiation exposure to members of the public would not be significant and would be maintained within the NRC dose criteria in 10 CFR 20.1301, 40 CFR part 190, and the ALARA dose objectives of appendix I to 10 CFR part 50.

Based on this information, impacts to members of the public from removing and replacing insulation within the reactor containment building would not be significant. However, impacts to plant workers and the environment from implementing this alternative would be greater than implementing the proposed action.

Alternative Use of Resources

The proposed action would not involve the use of any different resources (e.g., water, air, land, nuclear fuel) not previously considered in NUREG-1437, Supplement 48.

Agencies and Persons Consulted

In accordance with its stated policy, on May 1, 2017, the NRC staff consulted with the Texas State official, Mr. Robert Free, regarding the final environmental impact of the proposed action. The state official had no comments on the final EA and finding of no significant impact.

III. Finding of No Significant Impact

The NRC is considering STPNOC's requests to amend Facility Operating License Nos. NPF-76 and NPF-80 for STP, Units 1 and 2, and to grant exemptions for STP, Units 1 and 2, from certain requirements of 10 CFR 50.46(a)(1), and 10 CFR part 50, appendix A, GDCs 35, 38, and 41.

This proposed action would not result in changes to radioactive effluents or emissions to nuclear plant workers and members of the public or any changes to radiological and non-radiological impacts to the environment. On the basis of the EA included in Section II of this notice and incorporated by reference in this finding, the NRC staff finds that the proposed action will not have a significant effect on the quality of the human environment. The NRC staff's evaluation considered the information provided in the licensee's application as supplement, and

the NRC staff's review of related environmental documents. Section IV below lists the environmental documents related to the proposed action and includes information on the availability of the documents. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

IV. Availability of Documents

The documents identified in the following table are available for public inspection through the NRC's Agencywide Documents Access and Management System (ADAMS) or by using one of the methods discussed in Section I.A, "Obtaining Information," of this document.

Title	Date	ADAMS Accession No.
NUREG-0897, Containment Emergency Sump Performance: Technical Findings Related to Unresolved Safety Issue A-43, Revision 1	10/1985	ML112440046
NRC Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors	9/13/2004	ML042360586
NEI letter to NRC, Nuclear Energy Institute, GSI-191 Dose Estimates	03/30/2012	ML12095A319
Commission SECY-12-0093, Closure Options for Generic Safety Issue - 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance	07/09/2012	ML121320270 (package)
Commission SRM-SECY-12-0093, Staff Requirements – SECY-12-0093 – Closure Options for Generic Safety Issue – 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance	12/14/2012	ML12349A378
STPNOC letter to NRC, STP Pilot Submittal and Request for Exemption for a Risk-Informed Approach to Resolve Generic Safety Issue (GSI)-191	01/31/2013	ML13043A013

Title	Date	ADAMS Accession No.
NRC letter to STPNOC, South Texas Project, Units 1 and 2 - Supplemental Information Needed for Acceptance of Requested Licensing Action Re: Request for Exemption for a Risk-Informed Approach to Resolve Generic Safety Issue 191	04/01/2013	ML13066A519
STPNOC letter to NRC, Revised STP Pilot Submittal and Requests for Exemptions and License Amendment for a Risk-Informed Approach to Resolving Generic Safety Issue (GSI)-191	06/19/2013	ML131750250 (package)
STPNOC letter to NRC, Corrections to Information Provided in Revised STP Pilot Submittal and Requests for Exemptions and License Amendment for a Risk-Informed Approach to Resolving Generic Safety Issue (GSI)-191	10/03/2013	ML13295A222
STPNOC letter to NRC, Submittal of GSI-191 Chemical Effects Test Reports	10/31/2013	ML13323A673 (package)
STPNOC letter to NRC, Supplement 1 to Revised STP Pilot Submittal and Requests for Exemptions and License Amendment for a Risk-Informed Approach to Resolving Generic Safety Issue (GSI)-191	11/13/2013	ML13323A128 (package)
STPNOC letter to NRC, Supplement 1 to Revised STP Pilot Submittal for a Risk-Informed Approach to Resolving Generic Safety Issue (GSI)-191 to Supersede and Replace the Revised Pilot Submittal	11/21/2013	ML13338A165
NUREG-1437, Supplement 48, Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Supplement 48 Regarding South Texas Project, Units 1 and 2: Final Report	11/2013	ML13322A890
STPNOC letter to NRC, Response to STP-GSI-191 EMCB-RAI-1	12/23/2013	ML14015A312
STPNOC letter to NRC, Response to NRC Request for Reference Document For STP Risk-Informed GSI-191 Application	12/23/2013	ML14015A311
STPNOC letter to NRC, Response to NRC Accident Dose Branch Request for Additional Information	03/17/2014	ML14086A383 (package)
STPNOC letter to NRC, Response to Request for Additional Information re Use of RELAP5 in Analyses for Risk-Informed GSI-191 Licensing Application	01/09/2014	ML14029A533

Title	Date	ADAMS Accession No.
STPNOC letter to NRC, Submittal of CASA Grande Code and Analyses for STP's Risk-Informed GSI-191 Licensing Application	02/13/2014	ML14052A110 (package, portions redacted)
STPNOC letter to NRC, Submittal of GSI-191 Chemical Effects Test Reports	02/27/2014	ML14072A075 (package)
NRC Letter to STPNOC, Request for Additional Information, Round 1	04/15/2014	ML14087A075
NUREG-0713, Volume 34, Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2012: Forty-Fifth Annual Report	04/2014	ML14126A597
STPNOC letter to NRC, Second Submittal of CASA Grande Source Code for STP's Risk-Informed GSI-191 Licensing Application	05/15/2014	ML14149A354
STPNOC letter to NRC, First Set of Responses to April, 2014, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Revised	05/22/2014	ML14149A439 (package)
STPNOC letter to NRC, Second Set of Responses to April, 2014, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application	06/25/2014	ML14178A467 (package)
STPNOC letter to NRC, Third Set of Responses to April, 2014, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application	07/15/2014	ML14202A045
NRC letter to STPNOC, Request for Additional Information, Round 2	03/03/2015	ML14357A171
STPNOC letter to NRC, Submittal of Updated CASA Grande Input for STP's Risk-Informed GSI-191 Licensing Application	03/10/2015	ML15072A092
STPNOC letter to NRC, Description of Revised Risk-Informed Methodology and Responses to Round 2 Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application	03/25/2015	ML15091A440
STPNOC letter to NRC, Supplement 2 to STP Pilot Submittal and Requests for Exemptions and License Amendment for a Risk-Informed Approach to Address Generic Safety Issue (GSI)-191 and Respond to Generic Letter (GL) 2004-02	08/20/2015	ML15246A125 (package)
NRC letter to STPNOC, Request for Additional Information, Round 3 (without Risk)	04/11/2016	ML16082A507

Title	Date	ADAMS Accession No.
NRC letter to STPNOC, Request of Additional Information, Round 3 (Risk)	05/26/2016	ML16125A290
STPNOC letter to NRC, First Set of Responses to April 11,2016, Requests for Additional Information Regarding STP Risk-Informed GSl-191 Licensing Application	05/11/2016	ML16154A117
STPNOC letter to NRC, Applicability of Application Supplement 1 Correspondence to Supplement 2 Regarding STP Risk-Informed GSI-191 Licensing Application	06/09/2016	ML16176A148
STPNOC letter to NRC, Second Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application	06/16/2016	ML16196A241
STPNOC letter to NRC, Third Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Part A	07/18/2016	ML16209A226
STPNOC letter to NRC, Third Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Part B	07/21/2016	ML16229A189
STPNOC letter to NRC, Third Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Part C	07/21/2016	ML16230A232
STPNOC letter to NRC, Third Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Part D	07/28/2016	ML16221A393
STPNOC letter to NRC, Third Set of Responses to April 11, 2016, Requests for Additional Information Regarding STP Risk-Informed GSI-191 Licensing Application – Part E	09/12/2016	ML16272A162
STPNOC letter to NRC, Supplement 3 to Revised Pilot Submittal and Requests for Exemptions and License Amendment for a Risk-Informed Approach to Address Generic Safety Issue (GSl)-191 and Respond to Generic Letter (GL) 2004-02	10/20/2016	ML16302A015
STPNOC letter to NRC, Response to Request for Additional Information Regarding Sensitivity Studies for STPNOC Risk-Informed Pilot GSl-191 Application	11/9/2016	ML16321A407

Title	Date	ADAMS Accession No.
STPNOC letter to NRC, Revised Applicability Matrix for Response to Request for Additional Information Questions APLA-1a and APLA-1b Regarding STP Risk-Informed GSl-191 Licensing Application	12/7/2016	ML16365A006
STPNOC letter to NRC, Response to Request for Additional Information on Revised Applicability Matrix for Questions Regarding Risk-Informed GSI-191 Licensing Application	01/19/2017	ML17025A123

Dated at Rockville, Maryland, this 2nd day of May, 2017.

For the Nuclear Regulatory Commission.

Robert J. Pascarelli, Chief,
Plant Licensing Branch IV,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.

[FR Doc. 2017-09369 Filed: 5/8/2017 8:45 am; Publication Date: 5/9/2017]