



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

August 20, 2015

Mr. Dennis L. Koehl  
President and CEO/CNO  
STP Nuclear Operating Company  
South Texas Project  
P.O. Box 289  
Wadsworth, TX 77483

**SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - RE: UPGRADE TO  
EMERGENCY ACTION LEVEL SCHEME (TAC NOS. MF4195 AND MF4196)**

Dear Mr. Koehl:

The Commission has issued the enclosed Amendment No. 206 to Facility Operating License No. NPF-76 and Amendment No. 194 to Facility Operating License No. NPF-80 for the South Texas Project, Units 1 and 2, respectively. The amendments consist of changes to the emergency action level (EAL) scheme in response to your application dated May 15, 2014, as supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015.

The amendments support a conversion from your current EAL scheme to a scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," dated November 2012.

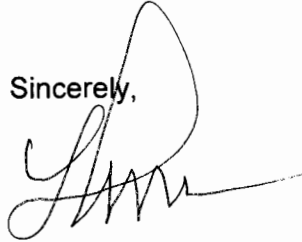
A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

D. Koehl

- 2 -

If you have any questions, please contact me at 301-415-1906 or via e-mail at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Lisa M. Regner', with a large, stylized loop at the end.

Lisa M. Regner, Senior Project Manager  
Plant Licensing Branch IV-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:

1. Amendment No. 206 to NPF-76
2. Amendment No. 194 to NPF-80
3. Safety Evaluation

cc: Listserv



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

**STP NUCLEAR OPERATING COMPANY**

**DOCKET NO. 50-498**

**SOUTH TEXAS PROJECT, UNIT 1**

**AMENDMENT TO FACILITY OPERATING LICENSE**

Amendment No. 206  
License No. NPF-76

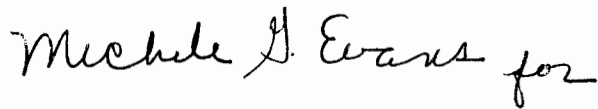
1. The Nuclear Regulatory Commission (NRC, the Commission) has found that:
  - A. The application for amendment by STP Nuclear Operating Company (STPNOC)\* acting on behalf of itself and for NRG South Texas LP, the City Public Service Board of San Antonio (CPS), and the City of Austin, Texas (COA) (the licensees), dated May 15, 2014, as supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

---

\*STPNOC is authorized to act for NRG South Texas LP, the City Public Service Board of San Antonio, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, by Amendment No. 206, Facility Operating License No. NPF-76 is hereby amended to authorize revision to the Emergency Action Level Technical Bases Document as set forth in STPNOC's application dated May 15, 2014, as supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015, and evaluated in the NRC staff's safety evaluation dated
3. The license amendment is effective as of its date of issuance and shall be implemented within 180 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink that reads "Michele J. Evans for". The signature is written in a cursive, flowing style.

William M. Dean, Director  
Office of Nuclear Reactor Regulation

Date of Issuance: August 20, 2015



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 194  
License No. NPF-80

1. The Nuclear Regulatory Commission (NRC, the Commission) has found that:
  - A. The application for amendment by STP Nuclear Operating Company (STPNOC)\* acting on behalf of itself and for NRG South Texas LP, the City Public Service Board of San Antonio (CPS), and the City of Austin, Texas (COA) (the licensees), dated May 15, 2014, as supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

---

\*STPNOC is authorized to act for NRG South Texas LP, the City Public Service Board of San Antonio, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, by Amendment No. 194, Facility Operating License No. NPF-80 is hereby amended to authorize revision to the Emergency Action Level Technical Bases Document as set forth in STPNOC's application dated May 15, 2014, as supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015, and evaluated in the NRC staff's safety evaluation dated
3. The license amendment is effective as of its date of issuance and shall be implemented within 180 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Michelle D. Evans for*

William M. Dean, Director  
Office of Nuclear Reactor Regulation

Date of Issuance: August 20, 2015



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
AND OFFICE OF NUCLEAR SECURITY AND INCIDENT RESPONSE  
RELATED TO AMENDMENT NOS. 206 AND 194 TO  
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80  
STP NUCLEAR OPERATING COMPANY, ET AL.  
SOUTH TEXAS PROJECT, UNITS 1 AND 2  
DOCKET NOS. 50-498 AND 50-499

1.0 INTRODUCTION

By application dated May 15, 2014 (Reference 1), and supplemented by letters dated July 10, 2014, February 11 and 26, and July 1, 2015 (References 2, 3, 4, and 5, respectively), STP Nuclear Operating Company (STPNOC, the licensee), requested U.S. Nuclear Regulatory Commission (NRC) approval for proposed changes to the emergency action level (EAL) scheme for the South Texas Project, Units 1 and 2 (STP).

STPNOC proposed to change the EALs from a scheme based upon earlier guidance to a scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," dated November 2012 (Reference 6).

The supplemental letters dated July 10, 2014, February 11 and 26, and July 1, 2015, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on October 28, 2014 (79 FR 64229).

2.0 REGULATORY EVALUATION

The NRC staff reviewed the proposed revision against the following regulations and guidance described below.

## 2.1 Regulations

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.47, "Emergency plans," sets forth emergency plan requirements for nuclear power plant facilities. The regulations in 10 CFR 50.47(a)(1)(i) states, 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.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for the NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Planning Standard (4) of this section requires that onsite and offsite emergency response plans contain:

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

The regulations in 10 CFR 50.90 and 10 CFR Part 50, Appendix E, Section IV.B(2) provide an opportunity for a licensee to modify its EAL scheme as necessary to address plant-specific design considerations or preferences.

Section IV.B, "Assessment Actions," of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50, states, in part, that

The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant.

STPNOC's proposed EAL scheme change was submitted to the NRC pursuant to 10 CFR Part 50, Appendix E, Section IV.B(2) for a technical and regulatory review prior to implementation by the licensee. Attachment 2 of the licensee's letter dated July 1, 2015 (Reference 5) contains the final version of the licensee's proposed plant-specific EAL scheme for STP and is the final version reviewed by the NRC staff.



## 2.2 Guidance

EAL development guidance was initially established via NRC Generic Letter 79-50, transmittal of Documents on the Basis of Emergency Action Levels, dated October 10, 1979 (Reference 7), and was subsequently established in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (Reference 8), which was endorsed as an approach for the development of an EAL scheme by NRC Regulatory Guide (RG) 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981 (Reference 9).

As industry and regulatory experience was gained with the implementation and use of EAL schemes, the industry issued revised EAL scheme development guidance to reflect lessons learned. To date, NUMARC/NESP-007, Revision 2, "Methodology for Development of Emergency Action Levels," dated January 1992 (Reference 10); NEI 99-01, Revision 4, "Methodology for Development of Emergency Action Levels," dated January 2003 (Reference 11); NEI 99-01 Revision 5 (Reference 12) and NEI 99-01 Revision 6 (Reference 6) were provided to the NRC for review and endorsement as generic EAL development guidance. RG 1.101, Revisions 3 and 4 (Reference 8) endorsed NUMARC/NESP-007 and NEI 99-01 Revision 4 as acceptable alternatives for licensees to consider in the development of their plant-specific EAL schemes, as well as allowing licensees to develop plant-specific EALs based upon an alternative approach not endorsed by the NRC. NEI 99-01 Revision 5 was endorsed by the NRC as generic (non-plant-specific) EAL Scheme development guidance by letter dated February 22, 2008 (Reference 12). NEI 99-01 Revision 6 was endorsed by the NRC as generic EAL scheme development guidance by letter dated March 28, 2013 (Reference 13).

The EAL development guidance contained in NRC Generic Letter 79-50, NUREG-0654/FEMA-REP-1, NUMARC/NESP-007, NEI 99-01 Revision 4, NEI 99-01 Revision 5, and NEI 99-01, Revision 6 are all considered generic EAL scheme development guidance, as they are not plant-specific and may not be entirely applicable for some reactor designs. However, the guidance contained in these documents bounds the most typical accident and event scenarios for which emergency response is necessary and in a format that allows for industry standardization and consistent regulatory oversight. Most licensees choose to develop their plant-specific EAL schemes using the latest endorsed EAL development guidance with appropriate plant-specific alterations as applicable. If the licensee is changing from one EAL scheme to another EAL scheme, 10 CFR Part 50, Appendix E, Section IV.B (2) states that the revision must be approved by the NRC before implementation.

The NRC staff considers the following methods acceptable for use in developing plant-specific EALs that meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), with the understanding that licensees may want to develop EALs that differ from the applicable guidance document as allowed in RG 1.101 and in the applicable endorsement letters:

- NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Appendix 1, "Emergency Action Level Guidelines for Nuclear Power Plants," dated November 1980 (Reference 8);

- NUMARC/NESP-007, Revision 2, "Methodology for Development of Emergency Action Levels," dated January 1992 (Reference 10);
- NEI 99-01, Revision 4, "Methodology for Development of Emergency Action Levels," dated January 2003 (Reference 11);
- NEI 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," dated February 2008 (Reference 12); and,
- NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," dated November 2012 (Reference 6).

NRC Regulatory Issue Summary (RIS) 2003-18, with Supplements 1 and 2, "Use of NEI 99-01, Methodology for Development of Emergency Action Levels," dated January 2003 (Reference 15), also provide guidance for developing or changing a standard emergency classification and action level scheme. In addition, this RIS and its supplements provide recommendations to assist licensees, consistent with Section IV.B of Appendix E to 10 CFR Part 50, in determining whether to seek prior NRC approval of deviations from the guidance.

Regardless of the generic EAL scheme development guidance document used by a licensee to develop its EAL scheme, or if a licensee chooses to develop its EAL scheme using an alternative approach not endorsed by the NRC, or a combination of the two (most typical), the NRC staff will review the EAL scheme to assure it meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4).

### 3.0 TECHNICAL EVALUATION

In its application and supplemental letters, the licensee submitted the proposed EAL scheme, the technical basis, a comparison matrix, the EAL numbering scheme, and an explanation for any difference or deviation from NEI 99-01, Revision 6. The comparison matrix provided a cross reference relating the proposed EAL scheme to the EAL scheme in NEI 99-01, Revision 6.

The licensee currently utilizes an EAL scheme based on NUMARC/NESP-007, Revision 2, "Methodology for Development of Emergency Action Levels," with plant-specific modifications due to design issues or licensee preference.<sup>1</sup> The licensee is converting to an EAL scheme using the development guidance from NEI 99-01, Revision 6, with plant-specific modifications due to design issues and/or licensee preference.

---

<sup>1</sup> NUMARC/NESP-007, Revision 2 (reference 10) was endorsed by the NRC staff in Revision 3 to Regulatory Guide 1.101 (reference 9).

The proposed plant-specific EAL scheme is unique to the licensee; however, to ensure consistency and regulatory stability, the NRC staff reviewed the proposed plant-specific EAL scheme to ensure the following key characteristics of an effective EAL scheme are in place:

- Consistency (i.e., the EALs would lead to similar decisions under similar circumstances at different plants), up to and including standardization in intent, if not in actual wording;
- Human factors engineering and user friendliness;
- Potential for classification upgrade only when there is an increasing threat to public health and safety;
- Ease of upgrading and downgrading;
- Thoroughness in addressing and disposing of the issues of completeness and accuracy raised regarding Appendix 1 to NUREG-0654, for example, the EALs are worded to remove ambiguity and are based on site-specific indicators;
- Technical completeness for each classification level;
- Logical progression in classification for multiple events; and
- Objective and observable values.

To aid in understanding the nomenclature used in this safety evaluation, for each category of EAL reviewed, the following naming and numbering conventions are used: the first letter signifies the category (e.g., R = Abnormal Radiological Release/Radiological Effluent); the second letter signifies the classification level (i.e., U = Notification of Unusual Event, A = Alert, S = Site Area Emergency, and G = General Emergency); and the number is the applicable number from the plant-specific EAL scheme.

For ease of use, this safety evaluation will use the numbering system from the plant-specific EAL scheme; however, the numbering system from the generic EAL scheme development guidance (Reference 6) shall be annotated in [brackets] to aid in cross-referencing the site-specific EAL numbering convention with that of the guidance when the numbering is different.

### 3.1 Category 'R' – Abnormal Radiological Release/Radiological Effluent

#### 3.1.1 EAL Set RG1/RS1/RA1/RU1 [AG1/AS1/AA1/AU1]

This EAL set is based upon plant-specific indications of a release of radioactivity (gaseous and/or liquid). The NRC staff has determined that the progression from Notification of Unusual Event to General Emergency is appropriate and consistent with EAL scheme development guidance.

The licensee chose to modify this EAL set by using a site-specific implementation method that uses a format other than that provided in the generic EAL scheme development guidance by using an 'R' in lieu of 'A' to reference this category. However, the NRC staff has determined

that the numbering, sequencing, and format of this EAL set is consistent with the overall EAL scheme development guidance and with the site-specific implementation strategies provided, and is therefore considered part of a standard EAL scheme.

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.1.2 EAL Set RG2/RS2/RA2/RU2 [AG2/AS2/AA2/AU2]

This EAL set is based upon plant-specific indications of fuel uncover, including spent fuel stored in the spent fuel pool or refueling pathway. The NRC staff has determined that the progression from Notification of Unusual Event to General Emergency is appropriate and consistent with EAL scheme development guidance. The Site Area Emergency and General Emergency classification levels for this specific accident progression are also bounded by indications available in the fission product barrier matrix, as well as in EALs RS1 and RG1.

The licensee chose to modify this EAL set by using a site-specific implementation method that uses a format other than that provided in the generic EAL scheme development guidance by using an 'R' in lieu of 'A' to reference this category. However, the NRC staff has determined that the numbering, sequencing, and format of this EAL set is consistent with the overall EAL scheme development guidance and with the site-specific implementation strategies provided, and is therefore considered part of a standard EAL scheme.

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.1.3 EAL RA3 [AA3]

This EAL is not part of an EAL set within the overall EAL scheme. This EAL is based upon radiation levels in the plant that limit normal access. This Alert EAL is primarily intended to ensure that the plant emergency response organization is activated to support the control room in removing the impediment to normal access. Indications of increasing radiation levels in the plant are bounded by indication of fission product barrier loss or potential loss, as well as in RS1 and RG1.

The licensee chose to modify this EAL by using a site-specific implementation method that uses a format other than that provided in the generic EAL scheme development guidance by using an

'R' in lieu of 'A' to reference this category. However, the NRC staff has determined that the numbering, sequencing, and format of this EAL is consistent with the overall EAL scheme development guidance and with the site-specific implementation strategies provided, and is therefore considered part of a standard EAL scheme.

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.2 Category 'C' – Cold Shutdown/Refueling System Malfunction

#### 3.2.1 EAL Set CG1/CS1/CA1/CU1

This EAL set is based upon a loss of reactor pressure vessel inventory and/or reactor coolant system leakage. The NRC staff has determined that the progression from Notification of Unusual Event to General Emergency is appropriate and consistent with EAL scheme development guidance.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.2.2 EAL Set CA2/CU2

This EAL set is based upon a loss of available power to emergency power electrical busses. The NRC staff has determined that the progression from Notification of Unusual Event to Alert is appropriate and consistent with EAL scheme development guidance. The Site Area Emergency and General Emergency classification levels for this specific accident progression are bounded by indications available in EALs RS1 and RG1.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.2.3 EAL Set CA3/CU3

This EAL set is based upon an inability to maintain control of decay heat removal. The NRC has determined that the progression from Notification of Unusual Event to Alert is appropriate and consistent with EAL scheme development guidance. The Site Area Emergency and General Emergency classification levels for this specific accident progression are bounded by indications available in EALs RS1 and RG1.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.2.4 EAL CU4

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is to ensure an EAL is declared when a loss of direct current (DC) power event occurs, as this condition compromises the ability of the licensee to monitor and control the removal of decay heat during Cold Shutdown or Refueling modes of operation. The Alert, Site Area Emergency, and General Emergency classification levels for this specific accident progression are bounded by indications available in EALs RA1, RS1, and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL is consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.2.5 EAL CU5

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is to highlight the importance of emergency communications by ensuring an EAL is declared if normal communication methods for onsite and offsite personnel, or for offsite response organizations including the NRC, are lost. No escalation path is necessary.

The numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The communication methods derived for this EAL are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.2.6 EAL CA6

This EAL is not part of an EAL set within the overall EAL. The EAL's intent is to ensure an EAL is declared when hazardous events lead to potential damage to safety systems. The Site Area Emergency and General Emergency classification levels for this accident progression are bounded by indications available in EALs CS1, RS1, and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

## 3.3 Category 'E' – Independent Spent Fuel Storage Installation

### 3.3.1 EAL E-HU1

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is limited to radiological events at the independent spent fuel storage installation (ISFSI). The NRC staff has determined that, while security-related events at the ISFSI are also of concern, they are bounded by the licensee's EAL HA1 (refer to section 3.5 in this safety evaluation).

The NRC staff has also determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific

implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.4 Category 'F' – Fission Product Barrier Matrix

This category is unique in the overall EAL scheme, as the thresholds are not intended to be stand-alone indicators of a particular event occurring at the plant. Rather, they are to be used as triggers within the particular logic configuration needed to reflect a loss or potential loss of a fission product barrier. United States nuclear power plants (light-water reactors) have three fission product barriers: fuel cladding, the reactor coolant system piping and components, and the primary containment building. Licensees are to develop thresholds that provide EAL decision-makers with information so they can make an event declaration based upon degradation of one or more of these fission product barriers.

There are numerous triggers used as logic inputs for licensees to decide on the appropriate classification based upon the number of loss or potential loss indicators for each barrier. By design, these indicators are redundant with other similar indicators in the Category 'R' and Category 'S' EAL sets, due to the importance of timely identification of reactor and fission product barrier events using the best available indicators from several different perspectives.

The NRC staff verified that the logic used to determine the appropriate emergency classification is consistent with the generic EAL scheme development guidance.

The instrumentation and set points derived for this EAL category are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The licensee chose to modify this EAL category by using a plant-specific implementation method that uses a format and EAL sequence other than that provided in the generic EAL scheme development guidance. However, the NRC staff has determined that the numbering, sequencing, and format of this EAL category is consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and is, therefore, consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL category is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.



### 3.5 Category 'H' – Hazards

#### 3.5.1 EAL Set HG1/HS1/HA1/HU1

This EAL set is based upon security-related events originally developed in accordance with the guidance from NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (Reference 15), or RIS 2006-12, "Endorsement of Nuclear Energy Institute Guidance 'Enhancements to Emergency Preparedness Programs for Hostile Action,'" dated July 19, 2006 (Reference 16), for licensees to implement regardless of the specific version of the generic EAL scheme development guidance used, or if the particular licensee developed its EAL scheme using an alternative approach. Based upon lessons learned from the implementation and use of this EAL set, particularly the insights gained from combined security and emergency preparedness drills, the NRC staff and the industry worked to enhance the language of these EALs to eliminate confusion without changing the intent of the EAL set as set forth in NRC Bulletin 2005-02 and RIS 2006-12.

The NRC staff has determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff has also determined that this EAL set is consistent with the guidance provided in NRC Bulletin 2005-02 and RIS 2006-12, as further enhanced by the lessons learned from implementation and drills, and revised in NEI 99-01, Revision 6.

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.5.2 EAL HU2

This EAL is not part of an EAL set within the overall EAL scheme. This EAL is based upon the effect a seismic event may have on the plant. The Alert, Site Area Emergency, and General Emergency classification levels for this specific accident progression are bounded by indications available in the fission barrier matrix and EALs RA1, RS1, RG1, CA6, and SA9.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, and while different than that provided in the generic EAL development guidance, it continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.5.3 EAL HU3

This EAL is not part of an EAL set within the overall EAL scheme. This EAL is based upon the effect that natural and destructive hazards may have on the plant. The Alert, Site Area Emergency, and General Emergency classification levels for this specific accident progression are bounded by indications available in the fission barrier matrix and EALs RA1, RS1, RG1, CA6, and SA9.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.5.4 EAL HU4

This EAL is not part of an EAL set within the overall EAL scheme. This EAL is based upon the effect that fires may have on the plant. The Alert, Site Area Emergency, and General Emergency classification levels for this specific accident progression are bounded by indications available in the fission barrier matrix and EALs RA1, RS1, RG1, CA6, and SA9.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.5.5 EAL HA5

This EAL is not part of an EAL set within the overall EAL scheme. This EAL is based upon the effect that toxic, corrosive, asphyxiant, or flammable gases may have on the plant. The Site Area Emergency and General Emergency classification levels for this specific accident progression are bounded by indications available in the fission product barrier matrix, as well as in EALs RS1 and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.5.6 EAL Set HS6/HA6

This EAL set is based upon control room evacuation and the inability to control critical plant systems remotely. The NRC staff has concluded that the progression from Alert to Site Area Emergency is appropriate and consistent with EAL scheme development guidance. The General Emergency classification level for this specific accident progression is bounded by indications available in the fission barrier matrix or EAL RG1.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.5.7 EAL Set HG7/HS7/HA7/HU7

This EAL set is based upon providing the decision-makers with EALs to consider when, in their judgment, an emergency classification is warranted.

The NRC staff has determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance, are consistent with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6 Category 'S' – System Malfunction

#### 3.6.1 EAL Set SG1/SS1/SA1/SU1

This EAL set is based upon a loss of available alternating current (AC) power sources to the emergency busses. The NRC staff has determined that the progression from Notification of Unusual Event to General Emergency is appropriate and consistent with EAL scheme development guidance.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation, values, and listing of applicable power sources derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.6.2 EAL Set SA2/SU2

This EAL set is based upon the effect that a loss of available indicators in the control room has on the facility. The NRC staff has determined that the progression from Notification of Unusual Event to Alert is appropriate and consistent with EAL scheme development guidance. The Site Area Emergency and General Emergency classification levels for this specific accident progression are bounded by indications available in the fission product barrier matrix, as well as in EALs RS1 and RG1.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6.3 EAL SU3

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is to ensure an EAL is declared when the plant has indications of fuel clad degradation. By design, this EAL is redundant with corresponding indicators from a loss or potential loss of fission product barriers, as well as radiation monitoring, to ensure reactor and/or fission product barrier events are recognized regardless of the particular EAL table to which a licensee may be referring. EAL escalation is bounded by fission product barrier indicators or EALs RA1, RS1, and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance, are consistent with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6.4 EAL SU4

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is to ensure that an EAL is declared when the plant has indications of reactor coolant system leakage. By design, this EAL is redundant with corresponding indicators from a loss or potential loss of fission product barriers, as well as radiation monitoring, to ensure reactor and/or fission product barrier events are recognized regardless of the particular EAL table a licensee may be referring to. EAL escalation is bounded by indications available in the fission product barrier matrix, as well as in EALs RA1, RS1, and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance, are consistent with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6.5 EAL Set SS5/SA5/SU5

This EAL set is based upon the effect that a failure of the reactor protection system may have on the plant. The NRC staff has determined that the progression from Notification of Unusual Event to Site Area Emergency is appropriate and consistent with EAL scheme development guidance. The General Emergency classification level for this event is bounded by indications available in the fission product barrier matrix, as well as in EAL RG1.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL set are consistent with the overall EAL scheme development guidance and with the plant-specific

implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The instrumentation and set points derived for this EAL set are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL set is in alignment with the key characteristics of an effective EAL scheme and, while different than that provided in the generic EAL development guidance, continues to meet the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6.6 EAL SU6

This EAL is not part of an EAL set within the overall EAL scheme as the EAL's intent is to highlight the importance of emergency communications by ensuring an EAL is declared if normal communication methods for onsite and offsite personnel, or for offsite response organizations including the NRC, are lost. No escalation path is necessary.

The NRC staff has also determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The communication methods derived for this EAL are consistent with the overall EAL scheme development guidance, address the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.6.7 EAL SU7

This EAL is not part of an EAL set within the overall EAL scheme. The EAL's intent is to ensure an EAL is declared when the plant has indications of containment barrier degradation. By design, this EAL is redundant with corresponding indicators from a loss or potential loss of fission product barriers, as well as radiation monitoring, to ensure reactor and/or fission product barrier events are recognized regardless of the particular EAL table a licensee may be referring to. EAL escalation is bounded by fission product barrier indicators or EALs RA1, RS1, and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance, are consistent with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.6.8 EAL Set SG8/SS8

This EAL set is based upon a loss of site AC and DC sources. The EAL's intent is to ensure that an EAL is declared when a loss of AC or DC power event occurs, as this condition compromises the ability of the licensee to monitor and control the removal of decay heat.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance, are consistent with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

#### 3.6.9 EAL SA9

This EAL is not part of an EAL set within the overall EAL. The EAL's intent is to ensure an EAL is declared when hazardous events lead to potential damage to safety systems. The Site Area Emergency to General Emergency classification levels for this accident progression are bounded by indications available in EALs RS1 and RG1.

The NRC staff has determined that the numbering, sequencing, and format of this EAL are consistent with the overall EAL scheme development guidance and with the plant-specific implementation strategies provided, and are consistent with a standard EAL scheme, as required by 10 CFR 50.47(b)(4).

The NRC staff concludes that the plant-specific implementation method for this EAL is in alignment with the key characteristics of an effective EAL scheme, meets the requirements of Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4), and is, therefore, acceptable.

### 3.7 Summary

The NRC staff has reviewed the technical bases for the proposed EAL scheme, the modifications from NEI 99-01 Revision 6, and the licensee's evaluation of the proposed changes. The licensee chose to modify its EAL scheme from the generic EAL scheme development guidance provided in NEI 99-01 Revision 6, in order to adopt a format that is better aligned with how it currently implements its EALs, as well as with plant-specific writers' guides and preferences. The NRC staff determined that these modifications do not alter the intent of any specific EAL within an EAL set, EAL category, or within the entire EAL scheme as stated in NEI 99-01 Revision 6.

Based on its review, the NRC staff has determined that the proposed EAL scheme uses objective and observable values, is worded in a manner that addresses human factors engineering and user friendliness concerns, follows logical progressions for escalating events, and allows for event downgrading and upgrading based upon the potential risk to the public health and safety. Risk assessments were used appropriately to set the boundaries of the emergency classification levels and ensure that all EALs that trigger an emergency classification are in the same range of relative risk. In addition, the NRC staff found that the proposed EAL scheme was technically complete and consistent with EAL schemes implemented at similarly designed plants.

Based on the above, the NRC staff concludes that the proposed changes meet the requirements in Appendix E to 10 CFR Part 50 and the planning standards of 10 CFR 50.47(b). Therefore, the NRC staff concludes that the proposed EAL scheme, as stated in Attachment 2 of the licensee's letter dated July 1, 2015, is acceptable and provides reasonable assurance that the licensee can and will take adequate protective measures in the event of a radiological emergency.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on October 28, 2014 (79 FR 64229). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.



## 7.0 REFERENCES

1. Powell, G. T., STP Nuclear Operating Company, letter to U.S. Nuclear Regulatory Commission, "License Amendment Request for Revision to Unit 1 and Unit 2 Emergency Action Levels," May 15, 2014 (ADAMS Accession No. ML14164A341).
2. Powell, G. T., STP Nuclear Operating Company, letter to U.S. Nuclear Regulatory Commission, "Supplement to License Amendment Request for Revision to Unit 1 and Unit 2 Emergency Action Levels," July 10, 2014 (ADAMS Accession No. ML14282A185).
3. Capristo, A., STP Nuclear Operating Company, letter to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information – South Texas Project (STP), Units 1 and 2 License Amendment Request for Emergency Action Level Scheme Change (TACs M[F]4195 and MF4196)," February 11, 2015 (ADAMS Accession No. ML15055A039).
4. Capristo, A., STP Nuclear Operating Company, letter to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information - South Texas Project, Units 1 and 2 License Amendment Request for Emergency Action Level Scheme Change (TACs M[F]4195 and MF4196)," February 26, 2015 (ADAMS Accession No. ML15068A045).
5. Powell, G. T., STP Nuclear Operating Company, letter to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information and Supplement to South Texas Project (STP), Units 1 and 2 License Amendment Request for Emergency Action Level Scheme Change (TACs M[F]4195 and MF4196)," July 1, 2015 (ADAMS Accession No. ML15190A218).
6. Nuclear Energy Institute, NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," November 2012 (ADAMS Accession No. ML12326A805).
7. U.S. Nuclear Regulatory Commission, Generic Letter 79-50 transmittal of Documents on the Basis of Emergency Action Levels, October 10, 1979 (ADAMS Accession No. ML031320278).
8. U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (ADAMS Accession No. ML040420012).
9. U.S. Nuclear Regulatory Commission, NRC Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," October 1981 (ADAMS Accession No. ML090440294); Revision 3, August 1992 (ADAMS Accession No. ML003740302); and Revision 4, July 2003 (ADAMS Accession No. ML032020276).
10. Nuclear Management and Resources Council/National Environmental Studies Project, NUMARC/NESP-007, Revision 2, "Methodology for Development of Emergency Action Levels," Revision 2, January 1992 (ADAMS Accession No. ML041120174).

11. Nuclear Energy Institute, NEI 99-01 Revision 4, "Methodology for Development of Emergency Action Levels," January 2003 (ADAMS Accession No. ML041470143).
12. Nuclear Energy Institute, NEI 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008 (ADAMS Accession No. ML080450149).
13. Miller, C. G., U.S. Nuclear Regulatory Commission, letter to Alan Nelson, Nuclear Energy Institute, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 5, February 2008," February 22, 2008 (ADAMS Accession No. ML080430535).
14. Thaggard, M., U.S. Nuclear Regulatory Commission, letter to Ms. Perkins-Grew, Nuclear Energy Institute, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 6, November 2012," March 28, 2013 (ADAMS Accession No. ML12346A463).
15. U.S. Nuclear Regulatory Commission, Regulatory Issue Summary 2003-18, with Supplements 1 and 2, "Use of NEI-99-01, 'Methodology for Development of Emergency Action Levels,' January 2003," October 8, 2003 (ADAMS Accession Nos. ML032580518, ML041550395, and ML051450482).
16. U.S. Nuclear Regulatory Commission, NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," July 18, 2005 (ADAMS Accession No. ML051740058).
17. U.S. Nuclear Regulatory Commission, Regulatory Issue Summary 2006-12, "Endorsement of Nuclear Energy Institute Guidance 'Enhancements to Emergency Preparedness Programs for Hostile Action,'" July 19, 2006 (ADAMS Accession No. ML072670421).

Principal Contributor: R. Hoffman, NSIR

Date: August 20, 2015

D. Koehl

- 2 -

If you have any questions, please contact me at 301-415-1906 or via e-mail at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,

**/RA/**

Lisa M. Regner, Senior Project Manager  
Plant Licensing Branch IV-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:

1. Amendment No. 206 to NPF-76
2. Amendment No. 194 to NPF-80
3. Safety Evaluation

cc: Listserv

DISTRIBUTION:

PUBLIC

LPL4-1 Reading

RidsAcrsAcnw\_MailCTR Resource

RidsNrrDorl Resource

RidsNrrDorlLpl4-1 Resource

RidsNrrLAJBurkhardt Resource

RidsNrrOd Resource

RidsNrrPMSouthTexas Resource

RidsNsirDpr Resource

RidsRgn4MailCenter Resource

RHoffman, NSIR/DPR

**ADAMS Accession No. ML15201A195**

**\*SE Memorandum dated 7/15/2015**

OFFICE	NRR/DORL/LPL4-1/PM	NRR/DORL/LPL4-1/LA	NSIR/DPR/ORLOB/BC	OGC - NLO
NAME	LRegner	JBurkhardt	JAnderson (MNorris for)	JLindell (with comments)
DATE	7/17/15	7/21/15	7/15/15	8/6/15
OFFICE	NRR/DORL/LPL4-1/BC	NRR/DORL/D	NRR/D	NRR/DORL/LPL4-1/PM
NAME	MMarkley	LLund (GWilison for)	WDean (MEvans for)	LRegner
DATE	8/12/15	8/13/15	8/19/15	8/20/15

**OFFICIAL RECORD COPY**