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10 CFR 50.54(q)

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

SUBJECT: Emergency Action Levels Technical Basis CSD-EP-RNP-0101-02, Revision 1 and Emergency Action Level Wall Chart CSD-EP-RNP-0101-01, Revision 1

Ladies and Gentlemen:

In accordance with 10 CFR 50.54(q), Duke Energy Progress, LLC (Duke Energy) is submitting a revision summary for H.B. Robinson Steam Electric Plant (Robinson), Unit No. 2 document CSD-EP-RNP-0101-02, Revision 1 which contains the Emergency Action Levels (EAL) and CSD-EP-RNP-0101-01 Revision 1 which contains the Emergency Action Level Technical Bases.

This revision updates references, provides typographical corrections, and provides clarification to the EALs and Bases (identified in the attachments to this letter). The revision also revises EALs RS2 and RG2 in accordance with NEI 99-01, Revision 6 to take into account site specific constraints and limitations for the Level 3 values of the Spent Fuel Pool Level Indication (level where the spent fuel remains uncovered and actions to implement make-up water addition should no longer be deferred). The previous Level 3 value was developed in accordance with NRC Order EA-12-051 using guidance from NEI 12-02. The revised value follows Revision 6 of NEI 99-01, which provides guidance to modify the EALs and/or Bases to reflect any site specific constraints or limitations associated with the design or operation of instrumentation used to determine the Level 3 value.

In accordance with 10 CFR 50.54(q)(5), Attachments I and II include a summary of analyses associated with the issuance of CSD-EP-RNP-0101-02, Revision 1 and CSD-EP-RNP-0101-01, Revision 1 which are effective on December 15, 2020.

This document contains no new Regulatory Commitments.

Should you have any questions concerning this letter, or require additional information, please contact Art Zaremba, Manager – Nuclear Fleet Licensing, at 980-373-2062.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Nolan", written in a cursive style.

M. Christopher Nolan
Vice President, Nuclear Regulatory Affairs, Policy & Emergency Preparedness

Attachment I: 10 CFR 50.54(q) Screening Evaluation Form
Attachment II: 10 CFR 50.54(q) Effectiveness Evaluation Form

cc: L. Dudes, NRC Regional Administrator, NRC, Region II
J. Rotton, NRC Senior Resident Inspector, HBRSEP, Unit No. 2
T. Hood, NRC Project Manager, NRR

Attachment I: 10 CFR 50.54(q) Screening Evaluation Form

<< 10 CFR 50.54(q) Screening Evaluation Form >>

Screening and Evaluation Number		Applicable Sites	
EREG #:2351002		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #:2356048		MNS	<input type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input checked="" type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision	CSD-EP-RNP-0101-01 Rev 001, Emergency Action Level Technical Bases CSD-EP-RNP-0101-02 Rev 001, EAL Wall Chart		

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

Spent Fuel Pool Level Instrument level adjustment based on EC 416209 and RNP-I/INST-1222 identifies instrument uncertainty associated with Guided Wave Radar level instrumentation that should be accounted for in setting EAL threshold to ensure Spent Fuel Pool level 3 values can be determined by Emergency Coordinators under all accident conditions.

Change #	Section or Step #	Change From	Change to
1	Throughout	Old Revision number, table of contents updates due to change in the procedure, revision summary, page numbers	New revision number, updated table of contents as a result of procedure changes, updated revision summary identifying the changes made from the procedure revision request, and page numbers as a result of the changes to the procedure.
2	RS2.1 EAL Basis (Att1) and EAL Wall Chart	Lowering of spent fuel pool level to ≤ 14.75 ft	Lowering of spent fuel pool level to ≤ 16 ft
3	RS2.1 EAL Basis (Att1 2 nd Paragraph-Bases Section)	The SFP level instruments consist of a primary channel (LI-11442B & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14ft- 38ft. indicated) Level 3 (top of the spent fuel racks) corresponds to the SFP level of 14 ft. However, the level instruments can actually only measure to 14.75 ft. (ref 2)	The SFP level instruments consist of a primary channel (LI-11442B & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14ft- 38ft. indicated) Level 3 (top of the spent fuel racks) corresponds to the SFP level of 14.75 ft. The EAL Threshold Value of 16 ft. will be used to account for Total Loop Uncertainty (TLU)
4	RS2.1 EAL Basis Att 1 Reference	1. NRC EA-12-051 Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation	1. NRC EA-12-051 Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

	Section	2. Engineering Change EC 89580 3. NEI 99-01 AS2	2. Engineering Change EC 89580 3. NEI 99-01 AS2 4. Engineering Change EC 416209 5. RNP-I/INST-1222, Spent Fuel Pool Level Indication (SFPLI) Uncertainty Calculation
5	RG2.1 EAL Basis (Att 1) and EAL Wall Chart	Spent fuel pool level cannot be restored to at least 14.75 ft. for ≥ 60 min.(Note 1)	Spent fuel pool level cannot be restored to at least 16 ft. for ≥ 60 min. (Note 1)
6	RG2.1 EAL Basis (Att1, 2 nd Paragraph- Bases Section)	The SFP level instruments consist of a primary channel (LI-11442A & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14 ft. – 38 ft. indicated). Level 3 (top of the spent fuel racks) corresponds to an SFP level of approximately 14 ft. However, the level instruments can actually only measure to 14.75 ft. (ref. 2).	The SFP level instruments consist of a primary channel (LI-11442A & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14 ft. – 38 ft. indicated). Level 3 (top of the spent fuel racks) corresponds to an SFP level of approximately 14.75 ft. The EAL Threshold Value of 16ft. will be used to account for Total Loop Uncertainty (TLU).
7	RG2.1 EAL Basis (Att 1-Reference Section)	1. NRC EA-12-051 Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation 2. Engineering Change EC 89580 3. NEI 99-01 AG2	1. NRC EA-12-051 Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation 2. Engineering Change EC 89580 3. NEI 99-01 AG2 4. Engineering Change EC 416209 5. RNP-I/INST-1222, Spent Fuel Pool Level Indication (SFPLI) Uncertainty Calculation
8	RA3.1 EAL Basis (Att.1, Reference Section)	1. OMM-014, Radiation Monitor Setpoints 2. DBD-SD-19, Radiation Monitoring System 3. NEI 99-01 AA3	1. OMM-014, Radiation Monitor Setpoints 2. DBD/R87038/SD19, SYS DBD-Radiation Monitoring System 3. NEI 99-01 AA3
9	CG1.2 EAL Basis (Att. 1 Reference Section)	1. GP-008 Draining the Reactor Coolant System 2. UFSAR Table 5.3.0-1 3. UFSAR Figure 5.3.0-1 4. UFSAR Section 7.2.1.1.7 Nuclear Instrumentation System 5. OP-002, Nuclear Instrumentation System 6. RNP-M/MECH-1745, Calculation of Setpoints for Accident Rad Monitors and EP Declaration Levels for H. B. Robinson, Unit No. 2 7. NEI 99-01 CG1	1. GP-008 Draining the Reactor Coolant System 2. UFSAR Table 5.3.0-1 3. UFSAR Figure 5.3.0-1 4. UFSAR Section 7.2.1.1.7 Nuclear Instrumentation System 5. OP-002, Nuclear Instrumentation System 6. RNP-M/MECH-1745, Calculation of Setpoints for Accident Rad Monitors and EP Declaration Levels for H. B. Robinson, Unit No. 2 7. NEI 99-01 CG1 8. OMM-033 Implementation of CV Closure
10	Table C-3 EAL	RCS Re-Heat Duration Thresholds	RCS Heat-up Duration Thresholds

	Wall Chart (Title)		
11	CU4.1 EAL Basis (Att 1) and EAL Wall Chart	< 109.5 VDC (Bus A) / < 106.2 (Bus B) bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)	< 109.5 VDC (Bus A) / < 106.2 VDC (Bus B) bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)
12	CU4.1 EAL Basis (Att 1, Bases 3 rd Paragraph)	This EAL is the cold condition equivalent of the hot condition loss of DC power EAL SS7.1.	This EAL is the cold condition equivalent of the hot condition loss of DC power EAL SS2.1.
13	EU1.1 EAL Basis (Att 1 Basis Section)	New Note	Note The naming convention for the 24P canister is simplified in the EAL table E-1. When referring to "24P", the RNP specification is applicable to all HSM-H modules which contain a loaded 24PTH-S or 24PTH-L DSC.
Attachment 6, 10 CFR 50.54(q) Initiating Condition (IC) and Emergency Action Level (EAL) and EAL Bases Validation and Verification (V&V) Form is attached (required for IC or EAL change)			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Part II. Activity Previously Reviewed?		Yes	<input type="checkbox"/>
Is this activity Fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?		No	<input checked="" type="checkbox"/>
If yes, identify bounding source document number or approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification below and complete Attachment 4, Part V.	
Justification:		Continue to Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part III	
Bounding document attached (optional)			<input type="checkbox"/>

Part III. Editorial Change Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? Justification: Change 1 is defined as editorial In accordance with (IAW) AD-EP-ALL-0602, new revision number, updated table of contents as a result of procedure changes, updated revision summary identifying the changes made from the document revision request, and page numbers as a result of the changes to the procedure. These identified changes do not change the intent of the guidance outlined in the procedure, therefore do not require any further evaluation. Change 8 is defined as editorial IAW AD-EP-ALL-0602, correct references associated with equipment/component designations and locations (room numbers, elevations, general directions) to be consistent with approved plant drawings, documents, labels, and procedures.		Yes	<input type="checkbox"/>	No or Partially	<input checked="" type="checkbox"/>
		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V.		Continue to Attachment 4, Part IV and address non editorial changes	
Part IV. Emergency Planning Element and Function Screen (Reference Attachment 1, Considerations for Addressing Screening Criteria) Does this activity involve any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If answer is yes, then check box.					
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)				
1a	Responsibility for emergency response is assigned.				<input type="checkbox"/>
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.				<input type="checkbox"/>
2	10 CFR 50.47(b)(2) Onsite Emergency Organization				
2a	Process ensures that onshift emergency response responsibilities are staffed and assigned				<input type="checkbox"/>
2b	The process for timely augmentation of onshift staff is established and maintained.				<input type="checkbox"/>
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources				
3a	Arrangements for requesting and using off site assistance have been made.				<input type="checkbox"/>
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan.				<input type="checkbox"/>
4	10 CFR 50.47(b)(4) Emergency Classification System				
4a	A standard scheme of emergency classification and action levels is in use. (Requires final approval of Screen and Evaluation by EP CFAM.)				<input checked="" type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures				
5a	Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notification.				<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.				<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS				<input type="checkbox"/>

	design report and supporting FEMA approval letter.	
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ).	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response.	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b)(10) Protective Response	
10a	A range of public PARs is available for implementation during emergencies.	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.	<input type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b)(11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b)(12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b)(13) Recovery Planning and Post-accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b)(14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b)(15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>
Part IV. Emergency Planning Element and Function Screen (cont.)		
16	10 CFR 50.47(b)(16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>

PART IV. Conclusion

If no Part IV criteria are checked, then provide Justification and complete Part V below.

Justification:

Changes 4 and 7 updates the reference section of the RS2.1 EAL Bases with the current Engineering Change and Spent Fuel Pool Level Indication (SFPLI) Uncertainty Calculations. The addition of these references provides additional supporting documentation for the EAL and does not change the intent of the guidance outlined. The addition of these references does not change the EAL. Robinson Nuclear Plant's (RNP) EAL scheme of emergency classification and action levels continues to be maintained in the event of an emergency.

Change 9 updates the reference section of the RA3.1 EAL Bases with an additional supporting document for the EAL and does not change the intent of the guidance outlined. The addition of these references does not change the EAL. RNP's EAL scheme of emergency classification and action levels continues to be maintained in the event of an emergency.

Change10 corrects the title of Table C-3 in the Wall Chart to align with the name convention found in the bases document. The revision provides clarification and alignment between the Wall Chart and Bases document. The change to "heat-up" versus "re-heat" is RNP Operations common terminology, and therefore best understood. This change does not alter or change the EAL and does not change the intent of the guidance outlined. RNP's EAL scheme of emergency classification and action levels continues to be maintained in the event of an emergency.

The changes above do not affect any planning standards, and do not reduce the effectiveness of Robinson Nuclear Plant emergency plans. Therefore, there is no further evaluation required.

If any Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV criteria are checked, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V and perform a 10 CFR 50.54(q) Effectiveness Evaluation. Program Element 4a requires final approval of Screen and Evaluation by EP CFAM.



Attachment II: 10 CFR 50.54(q) Effectiveness Evaluation Form

Screening and Evaluation Number		Applicable Sites	
EREG #: 2351002		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: 2356048		MNS	<input type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input checked="" type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision	CSD-EP-RNP-0101-01 Rev 001, Emergency Action Level Technical Bases CSD-EP-RNP-0101-02 Rev 001, EAL Wall Chart		

Part I. Description of Proposed Change:

Spent Fuel Pool Level Instrument level adjustment based on EC 416209 and RNP-I/INST-1222 identifies instrument uncertainty associated with Guided Wave Radar level instrumentation that should be accounted for in setting EAL threshold to ensure Spent Fuel Pool level 3 values can be determined by Emergency Coordinators under all accident conditions.

Change #	Section or Step #	Change From	Change to
2	RS2.1 EAL Bases (Att1) and EAL Wall Chart	Lowering of spent fuel pool level to ≤ 14.75 ft	Lowering of spent fuel pool level to ≤ 16 ft
3	RS2.1 EAL Bases (Att1 2nd Paragraph-Bases Section)	The SFP level instruments consist of a primary channel (LI-11442B & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14ft- 38ft. indicated) Level 3 (top of the spent fuel racks) corresponds to the SFP level of 14 ft. However, the level instruments can actually only measure to 14.75 ft. (ref 2)	The SFP level instruments consist of a primary channel (LI-11442B & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14ft- 38ft. indicated) Level 3 (top of the spent fuel racks) corresponds to the SFP level of 14.75 ft. The EAL Threshold Value of 16 ft. will be used to account for Total Loop Uncertainty (TLU)
5	RG2.1 EAL Basis (Att 1) and EAL Wall Chart	Spent fuel pool level cannot be restored to at least 14.75 ft. for ≥ 60 min.(Note 1)	Spent fuel pool level cannot be restored to at least 16 ft. for ≥ 60 min. (Note 1)
6	RG2.1 EAL Basis (Att1, 2nd Paragraph-Bases Section)	The SFP level instruments consist of a primary channel (LI-11442A & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14 ft. – 38 ft. indicated). Level 3 (top of the spent fuel racks) corresponds to an SFP level of approximately 14 ft. However, the level	The SFP level instruments consist of a primary channel (LI-11442A & LI-11443A) and back-up channel (LI-11442B & LI-11443B) each spanning approximately 24 ft. (14 ft. – 38 ft. indicated). Level 3 (top of the spent fuel racks) corresponds to an SFP level of approximately 14.75 ft. The EAL

		instruments can actually only measure to 14.75 ft. (ref. 2).	Threshold Value of 16ft. will be used to account for Total Loop Uncertainty (TLU).
11	CU4.1 EAL Basis (Att 1) and EAL Wall Chart	< 109.5 VDC (Bus A) / < 106.2 (Bus B) bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)	< 109.5 VDC (Bus A) / < 106.2 VDC (Bus B) bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)
12	CU4.1 EAL Basis (Att 1, Bases 3 rd Paragraph)	This EAL is the cold condition equivalent of the hot condition loss of DC power EAL SS7.1.	This EAL is the cold condition equivalent of the hot condition loss of DC power EAL SS2.1.
13	EU1.1 EAL Basis (Att 1 Basis Section)	New Note	Note The naming convention for the 24P canister is simplified in the EAL table E-1. When referring to "24P", the RNP specification is applicable to all HSM-H modules which contain a loaded 24PTH-S or 24PTH-L DSC.

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

Licensing Basis for NEI 99-01 Rev 6 EALS

RNP ML 16061A472 Letter Dated April 28, 2016. Subject: H. B. Robinson Steam Electric Plant, Unit no. 2 - Issuance of amendment to adopt Emergency Action Level scheme pursuant to NEI 99-01, revision 6, "Development of Emergency Action Levels for non-passive reactors" (CAC NO. MF6222) Amendment No. 245 to Renewed Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant Unit No. 2.

Additional Licensing basis to implement FAQs

ML19058A632 Letter dated July 1, 2019. Subject: Catawba Nuclear Station, Units 1 And 2; McGuire Nuclear Station, Units 1 And 2; Oconee Nuclear Station, Units 1, 2, And 3; Brunswick Steam Electric Plant, Units 1 And 2; Shearon Harris Nuclear Power Plant, Unit 1; And H. B. Robinson Steam Electric Plant, Unit No. 2 – Issuance of Amendments To Revise Emergency Action Level Schemes To Incorporate Clarifications Provided By Emergency Preparedness Frequently Asked Questions 2015-013, 2015-014, And 2016-002 (EPID L-2018-LLA-0174) Amendment Nos. 303 and 299 to Renewed Facility Operating License Nos. NPF-35 and NPF-52 for the Catawba Nuclear Station, Units 1 and 2 (Catawba), respectively; Amendment Nos. 315 and 294 to Renewed Facility Operating License Nos. NPF-9 and NPF-17 for the McGuire Nuclear Station, Units 1 and 2 (McGuire), respectively; Amendment Nos. 412, 414, and 413 to Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3 (Oconee), respectively; Amendment Nos. 291 and 319 to Renewed Facility Operating License Nos. DPR-71 and DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2 (Brunswick), respectively; Amendment No. 172 to Renewed Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1 (Harris); and Amendment No. 264 to Renewed Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (Robinson).

Current EALS

Robinson Nuclear Plant Emergency Action Levels, CSD-EP-RNP-0101-01 Revision 0

The differences in the approved and the current revision of the Emergency Plan have been reviewed, and they

have been determined to meet the regulatory requirements required during the course of revisions.

Part III. Description of How the Proposed Change Complies with Regulation and Commitments.

If the emergency plan, modified as proposed, no longer complies with planning standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50, then ensure the change is rejected, modified, or processed as an exemption request under 10 CFR 50.12, Specific Exemptions, rather than under 10 CFR 50.54(q):

Changes 2,3,5 and 6

The function of the Spent Fuel Pool Level Instrument (SFPLI) measurements are to provide reliable continuous indication of the water level in associated spent fuel storage pools capable of supporting identification of the following water level conditions in compliance with NRC Order EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation and as described in the latest revision of JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation and NEI 12-02, Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation".

- (1) level that is adequate to support operation of the normal fuel pool cooling system,
- (2) level that is adequate to provide substantial radiation shielding for a person standing on the spent fuel pool operating deck, and
- (3) level where the spent fuel remains covered and actions to implement make-up water addition should no longer be deferred.

The wide range spent fuel pool level instrumentation is only required in a Beyond-Design-Basis External Event (BDBEE), therefore, plant conditions, including postulated accidents defined in the Design Basis Accident, Chapter 15 of the UFSAR are not applicable. However, per NEI 12-02, "the level channels shall be reliable at temperature, humidity and radiation levels consistent with the spent fuel pool water at saturation conditions for an extended period." NEI 12-02 further describes conditions that should be considered near the SFP and the area of use considering both normal and post-event conditions for no fewer than seven days post-event or until off-site resources can be deployed.

The Duke development of the SFPLI Levels (1, 2, and 3) in response to the NRC Order EA-12-051 were not developed with EALs in mind but informed FLEX actions. NEI 12-02, was written to provide guidance to the industry for implementing the order. EA-12-051 and NEI 12-02 predate NEI 99-01 Rev. 6, Development of Emergency Action Levels for Non-Passive Reactors by several months.

NEI developed Rev. 6 of NEI 99-01, which provides guidance to use the values developed in response to the order in establishing SFP level based EALs. The EAL guidance directs developers to "modify the EAL and/or Basis section to reflect any site-specific constraints or limitations associated with the design or operation of instrumentation used to determine the Level 3 value."

A review of the value used in the EAL was conducted. While the Level 3 value in response to the NRC order was accurate and appropriate to meet NEI 12-02 requirements, site-specific constraints or limitations may not have been considered in determining the appropriate threshold value for EALs RS2, and RG2. This new level takes into account site specific constraints and limitations.

The proposed change raises the EALs RS2, and RG2 threshold values to 16 feet. The proposed EAL modifications do not alter the intent of any specific EAL described in NEI 99-01, Rev. 6. This level still represents Level 3 value because this is a level "where the spent fuel remains covered and action to implement make-up water addition should no longer be deferred".

The new level does not reduce the licensee's capability to assess, classify, and declare an emergency condition within 15 minutes of the availability of indications. The classification of the event would NOT be different from that

approved by the NRC in a site-specific application or from the endorsed industry EAL scheme that had been approved. The proposed change is able to be made because the change to the EAL numeric threshold is based on Engineering Change 416209 evaluating instrument response behavior, SFP configuration, and instrument uncertainty. The meaning or intent of the basis of the approved EAL is unchanged.

As per the bases document, this EAL is not likely to be declared prior to other EAL thresholds being exceeded. Lowering water level in a fuel pool of the magnitude in this EAL would take significant damage to the fuel pool, or an extended loss of offsite power. Damage of this magnitude would likely be caused by either hostile action, where the Site Area Emergency, would be declared upon a hostile action within the protected area, or an earthquake. A postulated earthquake of such magnitude to impact a spent fuel pool would have more consequential impact on safety related components meeting entry into System EALs or Fission Product Barrier EALs before meeting the level threshold of the SFP. Additionally, the Loss of Power for SFP cooling to reach this degree of inventory loss would exceed the time to declare the EAL under LOOP conditions.

The instrumentation and set points derived for this EAL are consistent with the overall EAL scheme development guidance in NEI 99-01 Revision 6 and address the plant-specific implementation strategies provided. As required by 10 CFR 50.47(b)(4), the proposed change complies with the regulations because 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.

Change 11 adds the unit of measure (VDC). The addition of this unit provides clarification to the user on the unit of measurement being used with the numeral values and makes the statement consistent using the same unit as in the beginning of the EAL. This change aligns this statement with the verbiage found in the Basis statement. The addition of this unit does not change or alter the meaning of the EAL, nor does it introduce any deviation or difference to the basic scheme guidance. Robinson Nuclear Plant (RNP) continue to have the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications that an EAL has been exceeded and to declare the emergency as soon as possible following the identification of the appropriate emergency classification level. As required by 10 CFR 50.47(b)(4), the proposed change complies with the regulations because 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.

Change 12 corrects a typographical error in the technical basis document that references an EAL that is not in the RNP scheme. This error was a reference to an escalation EAL should conditions worsen, the user could refer to a higher classification. Correcting this number does not change the mode applicability or intent of the EAL. This change corrects the potential upgrade EAL number to the correct number should escalation need referencing. This change does not reduce RNP's capability to assess, classify, and declare an emergency condition within 15 minutes. As required by 10 CFR 50.47(b)(4), the proposed change complies with the regulations because 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 for determinations of minimum initial offsite responses measures.

Change 13 adds a note that provides clarification to the ISFSI EAL for the 24P canister. RNP has simplified the naming convention used in the table of the EAL to just "24P". This note provides RNP specific guidance on the terminology used within the EAL table about the specific canisters and being applicable all HSM-H modules that contain this model number canister. This note only provides clarification and does not change the intent or meaning of the basic EAL scheme. RNP continue to fulfill the requirement outlined by 10 CFR 50.47(b)(4), the proposed change complies with the regulations because 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.

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change (Address each function identified in Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV of associated Screen):

Planning Standard

10 CFR 50.47(b)(4) states: 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.”

Function

The emergency planning function associated with 10 CFR 50.47(b)(4) states:

- A standard scheme of emergency classification and action levels is in use.

Appendix E

Supporting requirements which are described in 10 CFR 50, Appendix E states:

IV.B:

1. 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. The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and state and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis.

IV.C:

1. The entire spectrum of emergency conditions that involve the alerting or activating of progressively larger segments of the total emergency organization shall be described. The communication steps to be taken to alert or activate emergency personnel under each class of emergency shall be described. Emergency action levels (based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency, such as the pressure in containment and the response of the Emergency Core Cooling System) for notification of offsite agencies shall be described. The existence, but not the details, of a message authentication scheme shall be noted for such agencies. The emergency classes defined shall include: (1) Notification of unusual events, (2) alert, (3) site area emergency, and (4) general emergency. These classes are further discussed in NUREG-0654/FEMA-REP-1.

2. By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.

Informing Criteria from NUREG-0654

The applicable program elements described in NUREG-0654, Section II.D state:

- D.1: An emergency classification and emergency action level scheme as set forth in Appendix 1 must be

established by the licensee. The specific instruments, parameters or equipment status shall be shown for establishing each emergency class, in the in-plant emergency procedures. The plan shall identify the parameter values and equipment status for each emergency class.

- D.2: The initiating conditions shall include the example conditions found in Appendix 1 and all postulated accidents in the Final Safety Analysis Report (FSAR) for the nuclear facility.

Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:

Changes 2,3,5 and 6

The function of the SFPLI measurements are to provide reliable continuous indication of the water level in associated spent fuel storage pools capable of supporting identification of the following water level conditions in compliance with NRC Order EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation and as described in the latest revision of JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation and NEI 12-02, Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation".

- (1) level that is adequate to support operation of the normal fuel pool cooling system,
- (2) level that is adequate to provide substantial radiation shielding for a person standing on the spent fuel pool operating deck, and
- (3) level where the spent fuel remains covered and actions to implement make-up water addition should no longer be deferred.

The wide range spent fuel pool level instrumentation is only required in a Beyond-Design-Basis External Event (BDBEE), therefore, plant conditions, including postulated accidents defined in the Design Basis Accident, Chapter 15 of the UFSAR are not applicable. However, per NEI 12-02, "the level channels shall be reliable at temperature, humidity and radiation levels consistent with the spent fuel pool water at saturation conditions for an extended period." NEI 12-02 further describes conditions that should be considered near the SFP and the area of use considering both normal and post-event conditions for no fewer than seven days post-event or until off-site resources can be deployed.

The Duke development of the SFPLI Levels (1, 2, and 3) in response to the NRC Order EA-12-051 were not developed with EALs in mind but informed FLEX actions. NEI 12-02, was written to provide guidance to the industry for implementing the order. EA-12-051 and NEI 12-02 predate NEI 99-01 Rev. 6, Development of Emergency Action Levels for Non-Passive Reactors by several months.

NEI developed Rev. 6 of NEI 99-01, which provides guidance to use the values developed in response to the order in establishing SFP level based EALs. The EAL guidance directs developers to "modify the EAL and/or Basis section to reflect any site-specific constraints or limitations associated with the design or operation of instrumentation used to determine the Level 3 value."

A review of the value used in the EAL was conducted. While the Level 3 value in response to the NRC order was accurate and appropriate to meet NEI 12-02 requirements, site-specific constraints or limitations may not have

been considered in determining the appropriate threshold value for EALs RS2, and RG2. This new level takes into account site specific constraints and limitations.

The proposed change raises the EALs RS2, and RG2 threshold values to 16 feet. The proposed EAL modifications do not alter the intent of any specific EAL described in NEI 99-01, Rev. 6. This level still represents Level 3 value because this is a level "where the spent fuel remains covered and action to implement make-up water addition should no longer be deferred".

The new level does not reduce the licensee's capability to assess, classify, and declare an emergency condition within 15 minutes of the availability of indications. The classification of the event would NOT be different from that approved by the NRC in a site-specific application or from the endorsed industry EAL scheme that had been approved. The proposed change is able to be made because the change to the EAL numeric threshold is based on Engineering Change 416209 evaluating instrument response behavior, SFP configuration, and instrument uncertainty. The meaning or intent of the basis of the approved EAL is unchanged.

As per the bases document, this EAL is not likely to be declared prior to other EAL thresholds being exceeded. Lowering water level in a fuel pool of the magnitude in this EAL would take significant damage to the fuel pool, or an extended loss of offsite power. Damage of this magnitude would likely be caused by either hostile action, where the Site Area Emergency, would be declared upon a hostile action within the protected area, or an earthquake. A postulated earthquake of such magnitude to impact a spent fuel pool would have more consequential impact on safety related components meeting entry into System EALs or Fission Product Barrier EALs before meeting the level threshold of the SFP. Additionally, the Loss of Power for SFP cooling to reach this degree of inventory loss would exceed the time to declare the EAL under LOOP conditions

The instrumentation and set points derived for this EAL are consistent with the overall EAL scheme development guidance in NEI 99-01 Revision 6 and address the plant-specific implementation strategies provided.

Change 11 adds the unit of measure (VDC). The addition of this unit provides clarification to the user on the unit of measurement being used with the numeral values and makes the statement consistent using the same unit as in the beginning of the EAL. This change aligns this statement with the verbiage found in the Basis statement. The addition of this unit does not change or alter the meaning if the EAL, nor does it introduce any deviation or difference to the basic scheme guidance. RNP continue to have the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications that an EAL has been exceeded and to declare the emergency as soon as possible following the identification of the appropriate emergency classification level.

Proposed change 12 corrects a typographical error in the technical basis that references an EAL that is not in the RNP EAL scheme. This error was a reference to an escalation EAL should conditions worsen, the user could refer to a higher classification. Correcting this number does not change the mode applicability or intent of the EAL. This change corrects the potential upgrade EAL number should escalation need referencing. This change does not reduce RNP's capability to assess, classify, and declare an emergency condition within 15 minutes.

Change 13 adds a note that provides clarification to the ISFSI EAL for the 24P canister. RNP has simplified the naming convention used in the table of the EAL to just "24P". This note provides RNP specific guidance on the terminology used within EAL table about the specific canisters being applicable all HSM-H modules that contain this model number canister. This note only provides clarification and does not change the intent or meaning of the basic EAL scheme.

The emergency plan function of Emergency Classification System is sustained, because a standard scheme of emergency classification and action levels is in use.

The proposed changes do not reduce the effectiveness of Robinson Emergency Plan. These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:

- respond to an emergency;

- perform functions in a timely manner;
- effectively identify and take measures to ensure protection of the public health and safety; and
- effectively use response equipment and emergency response procedures.

These changes continue to meet NRC requirements, as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E as well as the requirements of the Robinson Nuclear Plant Emergency Plan as written and approved.

Part VI. Evaluation Conclusion.

Answer the following questions about the proposed change.

1	Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2	Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3	Does the proposed change maintain the current Emergency Action Level (EAL) scheme?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
4	Choose one of the following conclusions:		
a	The activity does continue to comply with the requirements of 10 CFR 50.47(b) and 10 CFR 50, Appendix E, and the activity does not constitute a reduction in effectiveness or change in the current Emergency Action Level (EAL) scheme. Therefore, the activity can be implemented without prior NRC approval. If Yes, then mark Part VII as not applicable (N/A).	<input checked="" type="checkbox"/>	
b	The activity does not continue to comply with the requirements of 10 CFR 50.47(b) or 10 CFR 50 Appendix E or the activity does constitute a reduction in effectiveness or EAL scheme change. Therefore, the activity cannot be implemented without prior NRC approval.	<input type="checkbox"/>	

NOTE: If prior NRC approval required, then complete Part VII.

Part VII. Disposition of Proposed Change Requiring Prior NRC Approval

Will the proposed change determined to require prior NRC approval be either revised or rejected?	N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If No, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number: _____.			