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

October 31, 2018

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – ISSUANCE OF AMENDMENT NO. 131 RE: REVISE TECHNICAL SPECIFICATIONS TO ADOPT TECHNICAL SPECIFICATIONS TASK FORCE (TSTF) TRAVELER 547, "CLARIFICATION OF ROD POSITION REQUIREMENTS" (EPID L-2018-LLA-0179)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 131 to Renewed Facility Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant (Ginna) in response to your application dated June 25, 2018, as supplemented by letter dated August 29, 2018.

The amendment revises Technical Specification (TS) 3.1.4, "Rod Group Alignment Limits"; TS 3.1.5, "Shutdown Bank Insertion Limit"; TS 3.1.6, "Control Bank Insertion Limits"; and TS 3.1.7, "Rod Position Indication," consistent with NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-547, Revision 1, "Clarification of Rod Position Requirements," dated March 4, 2016.

A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

V. Sreenivas, Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures:
1. Amendment No. 131 to Renewed DPR-18
2. Safety Evaluation

cc: Listserv

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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-244

R. E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 131
Renewed License No. DPR-18

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC (the licensee), dated June 25, 2018, as supplemented by letter dated August 29, 2018, 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, 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 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.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-18 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 131, are hereby incorporated in the renewed license. Exelon Generation shall operate the facility in accordance with the Technical Specifications

3. This license amendment is effective as of its date of issuance and shall be implemented within 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

James G. Danna, Chief
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Technical
Specifications

Date of Issuance: October 31, 2018

ATTACHMENT TO LICENSE AMENDMENT NO. 131

R. E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
Page 3	Page 3

Replace the following pages of the Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
3.1.4-1	3.1.4-1
3.1.4-2	3.1.4-2
3.1.4-3	3.1.4-3
3.1.5-1	3.1.5-1
---	3.1.5-2
3.1.6-1	3.1.6-1
3.1.6-2	3.1.6-2
---	3.1.6-3
3.1.7-1	3.1.7-1
3.1.7-2	3.1.7-2
3.1.7-3	3.1.7-3

(b) Exelon Generation pursuant to the Act and 10 CFR Part 70, to possess and use four (4) mixed oxide fuel assemblies in accordance with the RG&E's application dated December 14, 1797 (transmitted by letter dated December 20, 1979), as supplemented February 20, 1980, and March 5, 1980;

(3) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required.

(4) Exelon Generation pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Exelon Generation pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Maximum Power Level

Exelon Generation is authorized to operate the facility at steady-state power levels up to a maximum of 1775 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 131, are hereby incorporated in the renewed license. Exelon Generation shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

Exelon Generation shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee's amendment request dated March 28, 2013, supplemented by letters dated December 17, 2013; January 29, 2014; February 28, 2014; September 5, 2014; September 24, 2014; December 4, 2014; March 18, 2015; June 11, 2015; August 7, 2015; and as approved in the safety evaluation report dated November 23, 2015. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Rod Group Alignment Limits

LCO 3.1.4 All shutdown and control rods shall be OPERABLE.

AND

Individual indicated rod positions shall be within 12 steps of their group step counter demand position.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more rod(s) inoperable.	A.1.1 Verify SDM to be within the limits specified in the COLR.	1 hour
	OR	
	A.1.2 Initiate boration to restore SDM to within limit.	1 hour
	AND	
	A.2 Be in MODE 3.	6 hours
B. One rod not within alignment limits.	B.1.1 Verify SDM to be within the limits specified in the COLR.	1 hour
	OR	
	B.1.2 Initiate boration to restore SDM to within limit.	1 hour
	AND	
	B.2 Reduce THERMAL POWER to ≤ 75% RTP.	2 hours
	AND	

CONDITION		REQUIRED ACTION		COMPLETION TIME
		B.3	Verify SDM is within the limits specified in the COLR.	Once per 12 hours
		AND		
		B.4	Perform SR 3.2.1.1, SR 3.2.1.2, and SR 3.2.2.1.	72 hours
		AND		
		B.5	Re-evaluate safety analyses and confirm results remain valid for duration of operation under these conditions.	5 days
C.	Required Action and associated Completion Time of Condition B not met.	C.1	Be in MODE 3.	6 hours
D.	More than one rod not within alignment limit.	D.1.1	Verify SDM is within the limits specified in the COLR.	1 hour
			OR	
		D.1.2	Initiate boration to restore required SDM to within limit.	1 hour
		AND		
		D.2	Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.1.4.1	- NOTE - Not required to be performed for rods associated with inoperable rod position indicator or demand position indicator. Verify position of individual rods within alignment limit.	In accordance with the Surveillance Frequency Control Program
SR 3.1.4.2	Verify rod freedom of movement (trippability) by moving each rod not fully inserted in the core ≥ 8 steps in either direction.	In accordance with the Surveillance Frequency Control Program
SR 3.1.4.3	Verify rod drop time of each rod, from the fully withdrawn position, is ≤ 1.8 seconds from the beginning of decay of stationary gripper coil voltage to dashpot entry, with: a. T_{avg} ≥ 500°F; and b. All reactor coolant pumps operating.	Prior to criticality after each removal of the reactor head

3.1 REACTIVITY CONTROL SYSTEMS

3.1.5 Shutdown Bank Insertion Limit

LCO 3.1.5 The shutdown bank shall be within insertion limits specified in the COLR.

- NOTE -

Not applicable to the shutdown bank inserted while performing SR 3.1.4.2.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Shutdown bank inserted ≤ 8 steps beyond the insertion limits specified in the COLR.	A.1 Verify all control banks are within the insertion limits specified in the COLR.	1 hour
	AND	
	A.2.1 Verify SDM is within the limits specified in the COLR.	1 hour
	OR	
	A.2.2 Initiate boration to restore SDM to within limit.	1 hour
	AND	
	A.3 Restore the shutdown bank to within the insertion limits specified in the COLR.	24 hours

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Shutdown bank not within limit for reasons other than Condition A.	B.1.1 Verify SDM is within the limits specified in the COLR. OR B.1.2 Initiate boration to restore SDM to within limit. AND B.2 Restore shutdown bank to within limit.	1 hour 1 hour 2 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.5.1	Verify the shutdown bank is within the insertion limit specified in the COLR.	In accordance with the Surveillance Frequency Control Program

3.1 REACTIVITY CONTROL SYSTEMS

3.1.6 Control Bank Insertion Limits

LCO 3.1.6 Control banks shall be within the insertion, sequence, and overlap limits specified in the COLR.

- NOTE –

Note applicable to control banks inserted while performing SR 3.1.4.2.

APPLICABILITY: MODE 1,
MODE 2 with $k_{eff} \geq 1.0$.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Control bank A, B, or C inserted ≤ 8 steps beyond the insertion, sequence, or overlap limits specified in the COLR.	A.1 Verify the shutdown bank is within the insertion limit specified in the COLR.	1 hour
	AND	
	A.2.1 Verify SDM is within the limits specified in the COLR.	1 hour
	OR	
	A.2.2 Initiate boration to restore SDM to within limit.	1 hour
	AND	
	A.3 Restore the control bank to within the insertion, sequence, and overlap limits specified in the COLR.	24 hours

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Control bank insertion limits not met for reasons other than Condition A.	B.1.1 Verify SDM is within the limits specified in the COLR. OR B.1.2 Initiate boration to restore SDM to within limit. AND B.2 Restore control bank(s) to within limits.	1 hour 1 hour 2 hours
C. Control bank sequence or overlap limits not met for reasons other than Condition A.	C.1.1 Verify SDM is within the limits specified in the COLR. OR C.1.2 Initiate boration to restore SDM to within limit. AND C.2 Restore control bank sequence and overlap to within limits.	1 hour 1 hour 2 hours
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 2 with K_{eff} < 1.0.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.6.1	Verify estimated critical control bank position is within the limits specified in the COLR.	Within 4 hours prior to achieving criticality
SR 3.1.6.2	Verify each control bank insertion is within the insertion limits specified in the COLR.	In accordance with the Surveillance Frequency Control Program
SR 3.1.6.3	Verify sequence and overlap limits specified in the COLR are met for control banks not fully withdrawn from the core.	In accordance with the Surveillance Frequency Control Program

3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Rod Position Indication

LCO 3.1.7 The Microprocessor Rod Position Indication (MRPI) System and the Demand Position Indication System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

- NOTE -

Separate Condition entry is allowed for each inoperable MRPI and each demand position indicator.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One MRPI per group inoperable in one or more groups.	A.1 Verify the position of the rod with inoperable MRPI indirectly by using movable incore detectors. OR	Once per 8 hours
	A.2 Verify the position of the rods with inoperable MRPI indirectly by using the movable incore detectors.	8 hours AND Once per 31 EFPD thereafter AND 8 hours after discovery of each unintended rod movement AND 8 hours after each movement of rod with inoperable MRPI > 12 steps AND

CONDITION	REQUIRED ACTION		COMPLETION TIME
			Prior to THERMAL POWER exceeding 50% RTP AND 8 hours after reaching RTP
	OR		
	A.3	Reduce THERMAL POWER TO ≤ 50% RTP.	8 hours
B. More than one MRPI per group inoperable in one or more groups.	B.1	Place the control rods under manual control.	Immediately
	AND		
	B.2	Restore inoperable MRPIs to OPERABLE status such that a maximum of one MRPI per group is inoperable.	24 hours
C. One or more MPRI inoperable in one or more groups and associated rod has been moved > 24 steps in one direction since the last determination of the rod's position.	C.1	Verify the position of the rods with inoperable MRPIs indirectly by using movable incore detectors.	4 hours
	OR		
	C.2	Reduce THERMAL POWER to ≤ 50% RTP.	8 hours
D. One or more demand position indicators per bank inoperable in one or more banks.	D.1.1	Verify by administrative means all MRPIs for the affected banks are OPERABLE.	Once per 8 hours
		AND	

CONDITION	REQUIRED ACTION	COMPLETION TIME
	D.1.2 Verify the most withdrawn rod and the least withdrawn rod of the affected banks are ≤ 12 steps apart. OR	Once per 8 hours
	D.2 Reduce THERMAL POWER to ≤ 50% RTP.	8 hours
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.7.1 ---------- - NOTE – Not required to be met for MRPIs associated with rods that do not meet LCO 3.1.4. ---------- Verify each MRPI agrees within 12 steps of the group demand position for the full indicated range of rod travel.	Once prior to criticality after each removal of the reactor head

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 131

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-18

EXELON GENERATION COMPANY, LLC

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated June 25, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18176A327), as supplemented by letter dated August 29, 2018 (ADAMS Accession No. ML18243A167), Exelon Generation Company, LLC (the licensee) submitted a license amendment request to revise the R. E. Ginna Nuclear Power Plant (Ginna) Technical Specifications (TSs) to revise TS 3.1.4, "Rod Group Alignment Limits"; TS 3.1.5, "Shutdown Bank Insertion Limit"; TS 3.1.6, "Control Bank Insertion Limits"; and TS 3.1.7, "Rod Position Indication," consistent with U.S. Nuclear Regulatory Commission (NRC or the Commission)-approved Technical Specifications Task Force (TSTF) Traveler TSTF-547, Revision 1, "Clarification of Rod Position Requirements" dated March 4, 2016.

By letter dated December 31, 2015 (ADAMS Accession No. ML15365A610), the TSTF submitted Revision 1 to Improved Standard Technical Specifications Change Traveler TSTF-547. TSTF-547 proposed changes to Volumes 1 and 2 of NUREG-1431, "Standard Technical Specifications: Westinghouse Plants, Revision 4.0," Volume 1, Specifications, and Volume 2, Bases, dated April 30, 2012 (STS) (ADAMS Accession Nos. ML12100A222 and ML12100A228, respectively). TSTF-547, Revision 1, was approved by the NRC by letter dated March 4, 2016 (ADAMS Package Accession No. ML16012A126).

The proposed changes would revise the TSs to provide time to correct rod movement failures that do not affect operability and provide an alternative to frequent verification of rod position using the movable incore detectors. The proposed changes would also align requirements of TS 3.1.4, "Rod Group Alignment Limits," and TS 3.1.7, "Rod Position Indication" and make some editorial improvements to TS 3.1.4; TS 3.1.5, "Shutdown Bank Insertion Limit"; TS 3.1.6, "Control Bank Insertion Limits"; and 3.1.7, "Rod Position Indication."

The supplemental letter dated August 29, 2018, 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 July 31, 2018 (83 FR 36976).

2.0 REGULATORY EVALUATION

2.1 Description of Rod Cluster Control Assemblies

The rod cluster control assemblies (RCCA), or rods, are moved by their control rod drive mechanisms (CRDM). Each CRDM moves its RCCA one step (approximately 5/8 inch) at a time, but at varying rates (steps per minute), depending on the signal output from the rod control system. The RCCAs are divided among control banks and a shutdown bank. Control banks are used to compensate for changes in reactivity due to variations in operating conditions of the reactor such as coolant temperature, power level, boron, or xenon concentration. The shutdown bank provides additional shutdown reactivity such that the total shutdown worth of the bank is adequate to provide shutdown for all operating and hot zero power conditions, with the single RCCA of highest reactivity worth fully withdrawn. Each bank is further subdivided into two groups to provide for precise reactivity control. A group consists of two or more RCCAs that are electrically paralleled to step simultaneously. A bank of RCCAs consists of two groups that are moved in a staggered fashion, but always within one step of each other. There are four control banks and one shutdown bank at Ginna.

The shutdown bank is maintained either in the fully inserted or fully withdrawn position. The fully withdrawn position is defined in the Core Operating Limits Report (COLR). The control banks are moved in an overlap pattern, using the following withdrawal sequence: when control bank A reaches a predetermined height in the core, control bank B begins to move out with control bank A. Control bank A stops at the fully withdrawn position, and control bank B continues to move out. When control bank B reaches a predetermined height, control bank C begins to move out with control bank B. This sequence continues until control banks A, B, and C are at the fully withdrawn position, and control bank D is near the fully withdrawn position at rated thermal power (RTP). The insertion sequence is the opposite of the withdrawal sequence (i.e., bank D is inserted first) but follows the same overlap pattern. The control rods are arranged in a radially symmetric pattern so that control bank motion does not introduce radial asymmetries in the core power distributions.

The axial position of shutdown rods and control rods is indicated by two separate and independent systems: the Bank Demand Position Indication System (commonly called group step counters) and the Microprocessor Rod Position Indication (MRPI) System. The Bank Demand Position Indication System counts the pulses from the rod control system that moves the rods. There is one step counter for each group of rods. Individual rods in a group all receive the same signal to move and should, therefore, all be at the same position indicated by the group step counter for that group. The Bank Demand Position Indication System is considered highly precise (±1 step or ±5/8 inch), but if a rod does not move one step for each demand pulse, the step counter will still count the pulse and incorrectly reflect the position of the rod.

The MRPI system also provides a highly accurate indication of actual control rod position, but at a lower precision than the step counters. The MRPI system consists of one digital detector assembly per rod. All the detector assemblies consist of one coil stack, which is multiplexed and becomes input to two redundant MRPI signal processors. Each signal processor independently monitors all rods and senses a rod bottom for any rod. The MRPI system directly senses rod position in intervals of 12 steps for each rod. The digital detector assemblies consist of 20 discrete coil pairs spaced at 12-step intervals. The true rod position is always within ±8 steps of the indicated position (±6 steps due to the 12-step interval and ±2 steps transition uncertainty due to processing and coil sensitivity). With an indicated deviation of 12 steps

between the group step counter and MRPI, the maximum deviation between actual rod position and the demand position would be 20 steps, or 12.5 inches.

Shutdown margin (SDM) is defined in NUREG-1431 as follows:

a. All rod cluster control assemblies (RCCAs) are fully inserted except for the single RCCA of highest reactivity worth, which is assumed to be fully withdrawn. However, with all RCCAs verified fully inserted by two independent means, it is not necessary to account for a stuck RCCA in the SDM calculation. With any RCCA not capable of being fully inserted, the reactivity worth of the RCCA must be accounted for in the determination of SDM, and

b. In MODES 1 and 2, the fuel and moderator temperatures are changed to the [nominal zero power design level].

The COLR is defined in NUREG-1431 as the unit-specific document that provides cycle-specific parameter limits for the current reload cycle. These cycle-specific parameter limits must be determined for each reload cycle in accordance with TS 5.6.3. Plant operation within these limits is addressed in individual specifications.

2.2 Description of Changes

This safety evaluation addresses changes to the STS governing rod group alignment limits (TS 3.1.4), shutdown bank insertion limit (TS 3.1.5), control bank insertion limits (TS 3.1.6), and rod position indication instrumentation (TS 3.1.7). The specific changes are described in the following subsections. The discussion is applicable to Ginna unless otherwise stated in the discussion.

2.2.1 Provide Time to Correct Rod Movement Failures that Do Not Affect Operability

Limiting Condition for Operation (LCO) 3.1.5 requires that the shutdown bank be at or above the insertion limit specified in the COLR. Current Condition A for the shutdown bank not within the limits requires:

A.1.1 Verify SDM is within the limits specified in the COLR within 1 hour

OR

A.1.2 Initiate boration to restore SDM to within limit within 1 hour

AND

A.2 Restore shutdown bank to within limit within 2 hours

LCO 3.1.6 requires that each control bank be within insertion, sequence and overlap limits specified in the COLR. Current Condition A for control bank insertion limits not met requires:

A.1.1 Verify SDM is within the limits specified in the COLR within 1 hour

OR

A.1.2 Initiate boration to restore SDM to within limit within 1 hour

AND

A.2 Restore control bank(s) to within limits within 2 hours

The proposed change would revise LCO 3.1.5 to state, "The shutdown bank shall be within insertion limit specified in the COLR." The change will add a new Condition A to LCO 3.1.5 that would require, with the shutdown bank inserted ≤ 8 steps beyond the insertion limit specified in the COLR:

A.1 Verify all control banks are within the insertion limits specified in the COLR within 1 hour

AND

A.2.1 Verify SDM is within the limits specified in the COLR within 1 hour

OR

A.2.2 Initiate boration to restore SDM to within the limit within 1 hour

AND

A.3 Restore the shutdown bank to within the insertion limits specified in the COLR within 24 hours

The existing Condition A would be relettered as Condition B and would be modified to apply for one or more shutdown banks not within limits for reasons other than Condition A. The existing RAs A.1.1, A.1.2, and A.2 would be relettered B.1.1, B.1.2, and B.2. The existing Condition B and RA B.1 would be relettered Condition C and RA C.1.

The proposed change would add a new Condition A to LCO 3.1.6 that would require, if control bank A, B, or C is inserted ≤ 8 steps beyond the insertion, sequence, and overlap limits specified in the COLR:

A.1 Verify the shutdown bank is within the insertion limit specified in the COLR within 1 hour

AND

A.2.1 Verify SDM is within the limits specified in the COLR within 1 hour

OR

A.2.2 Initiate boration to restore SDM to within limit within 1 hour

AND

A.3 Restore the control bank to within the insertion, sequence, and overlap limits specified in the COLR within 24 hours

The existing Condition A would be relettered as Condition B and would be modified to apply for control bank insertion limits not met for reasons other than Condition A. The existing RAs A.1.1, A.1.2, and A.2 would be relettered B.1.1, B.1.2, and B.2.

The existing Condition B would be modified to apply when control bank sequence or overlap limits are not met for reasons other than Condition A. Existing Condition B and RAs B.1.1, B.1.2, and B.2 would be relettered as Condition C and RAs C.1.1, C.1.2, and C.2. Existing Condition C and RA C.1 would be relettered as Condition D and RA D.1.

The shutdown bank must be within the insertion limits any time the reactor is critical or approaching criticality. This ensures that a sufficient amount of negative reactivity is available to shut down the reactor and maintain the required SDM following a reactor trip.

The limits on control banks sequence, overlap, and physical insertion, as defined in the COLR, must be maintained because they serve the function of preserving power distribution, ensuring that the SDM is maintained, ensuring that ejected rod worth is maintained, and ensuring adequate negative reactivity insertion is available on trip.

2.2.2 Provide an Alternative to Frequent Verification of Rod Position Using the Movable Incore Detectors

LCO 3.1.7, "Rod Position Indication," requires that the MRPI and the Bank Demand Position Indication System be operable during Startup and Power Operation. Condition A applies for one MRPI per group inoperable in one or more groups of rods. The associated RAs are:

A.1 Verify the position of the rod with inoperable position indicators by using movable incore detectors once per 8 hours

OR

A.2 Reduce THERMAL POWER to ≤ 50% RTP within 8 hours

OR

A.3.1 Verify the position of the non-indicating rod indirectly by using movable incore detectors within 8 hours AND once with 8 hours of rod control system indication of potential rod movement AND once per 31 days thereafter

AND

A.3.2 Review the parameters of the rod control system for indication of rod movement for the rod with an inoperable position indicator within 16 hours AND once per 8 hours thereafter

The proposed change would change RA A.2 and RA A.3. The revised RAs would be:

A.1 Verify the position of the rod with inoperable MRPI indirectly by using moveable incore detectors once per 8 hours

OR

A.2 Verify the position of rods with inoperable MRPI indirectly by using the moveable incore detectors within 8 hours, once per 31 EFPD thereafter, within 8 hours after discovery of each unintended rod movement, within 8 hours after each movement of rod with inoperable MRPI > 12 steps, prior to THERMAL POWER exceeding 50% RTP and within 8 hours after reaching RTP

OR

A.3 Reduce THERMAL POWER to ≤ 50% RTP within 8 hours

A new Condition B for the situation when more than one MRPI per group is inoperable in one or more groups would be added with RAs:

B.1 Place the control rods under manual control immediately

AND

B.2 Restore inoperable MRPIs to OPERABLE status such that a maximum of one MRPI per group is inoperable within 24 hours

Existing Condition B would be relettered to Condition C and revised to contain similar terminology to Conditions A and B. The existing Condition states, "One or more rods with inoperable position indicators have been moved > 24 steps in one direction since the last determination of the rod's position." Conditions A and B are worded such that the condition describing the inoperable equipment (e.g., "One MRPI per group inoperable...") is listed first. The proposed change rewords the relettered Condition C to state, "One or more MRPI inoperable in one or more groups and associated rod has moved > 24 steps in one direction since the last determination of the rod's position."

2.2.3 Clarify Surveillance Requirements (SRs) in TS 3.1.4 and TS 3.1.7

LCO 3.1.4 requires that all individual indicated rod positions are within 12 steps of their group step counter demand position. The 12-step agreement limit between the Bank Demand Position Indication System and the MRPI system indicates that the Bank Demand Position Indication System is adequately calibrated and can be used for indication of the measurement of control rod bank position. When one MRPI channel per group fails, the position of the rod may still be determined indirectly by use of the movable incore detectors.

SR 3.1.4.1 requires verification that the individual rods are within the alignment limit in accordance with the Surveillance Frequency Control Program. This SR is proposed to be modified by a note to indicate that the SR is not applicable for rods with an inoperable rod position indicator or demand position indicator.

Verification that individual rod positions are within alignment limits at the frequency specified in the Surveillance Frequency Control Program provides a history that allows the operator to detect a rod that is beginning to deviate from its expected position. The specified frequency takes into account other rod position information that is continuously available to the operator in the control room so that during actual rod motion, deviations can immediately be detected.

SR 3.1.7.1 requires verification that each MRPI agrees with the required steps of the group demand position for the full indicated range of rod travel. The proposed change is the addition of a note to SR 3.1.7.1 stating that the SR would not be required to be met for rods known not to meet LCO 3.1.4.

2.2.4 Other Proposed Changes

The proposed changes described in this section are editorial and do not change the technical content.

1. LCO 3.1.5 and LCO 3.1.6 contain a note modifying their requirements while SR 3.1.4.2 is performed. The proposed change revises the LCO 3.1.5 and LCO 3.1.6 notes to state, "Not applicable to the shutdown bank inserted while performing SR 3.1.4.2" for LCO 3.1.5 and "Not applicable to control banks inserted while performing SR 3.1.4.2" for LCO 3.1.6. This change clarifies the note and does not alter its meaning.

2. TS 3.1.7, Condition A, is revised from "for one or more groups" to the more standard terminology "in one or more groups."

3. LCO 3.1.7, Condition D, is revised from "One demand position indicator per bank inoperable for one or more banks" to "One or more demand position indicators per bank inoperable in one or more banks." The proposed change makes the terminology consistent with the note modifying the RAs.

   The current TS 3.1.7 Actions table is modified by a note that states, "Separate Condition entry is allowed for each inoperable MRPI per group and each demand position indicator per bank." The note is modified to state "Separate Condition entry is allowed for each inoperable MRPI and each demand position indicator." The Bases for the note states that the note is acceptable because the RAs for each condition provide appropriate compensatory actions for each inoperable indicator. There is one demand position indicator per group of rods. For banks with two groups of rods, there are two demand indicators per bank. The separate condition entry note modifying the TS 3.1.7 Actions states that separate condition entry is allowed for inoperable demand position indicators, which means that Condition D is applicable to more than one inoperable demand position indicator per bank. The proposed change makes the existing Condition D terminology consistent with the note.

2.2.5 Variations from TSTF-547

The licensee identified several variations from the TS changes contained in TSTF-547:

1) The number of steps in SR 3.1.4.2 to be >= 8 steps instead of 10.

2) Ginna only has one shutdown bank. TSTF-547 assumes multiple shutdown banks. The Ginna TSs will be reworded to reflect the current plant design.

3) The Pressurized Water Reactor Owner's Group (PWROG) notified Tennessee Valley Authority (TVA) after they submitted their license amendment request that newly created RA A.2.2 to the STS for the rod position indication LCO RA 2.2 requires the inoperable rod position indication to be returned to operable status prior to entering Mode 2 from Mode 3). This RA is made irrelevant, as the logical "OR" connector would allow the licensee to transition from RA A.2.1 and RA A.2.2 into either RA A.1 or RA A.3 (which do not have that requirement), and thereby not have to restore the inoperable rod position indication to operable status. (Reference TVA supplemental letter to the NRC dated May 11, 2018 (ADAMS Accession No. ML18135A340))

Ginna TS and TS Bases 3.1.7 will not include RA A.2.2 and will renumber RA A.2.1 to RA A.2.

2.3 Regulatory Review

The categories of items required to be in the TSs are provided in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(c). As required by 10 CFR 50.36(c)(2)(i), the TSs will include LCOs, which are the lowest functional capability or performance levels of equipment required for safe operation of the facility. Per 10 CFR 50.36(c)(2)(i), when an LCO of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met. The regulation at 10 CFR 50.36(c)(3) requires TSs to include items in the category of SRs, which are requirements relating to test, calibration, or inspection, to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCOs will be met. Also, 10 CFR 50.36(a)(1) states that a summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the TSs.

The NRC staff's guidance for review of TSs is in Chapter 16, "Technical Specifications," of NUREG-0800, Revision 3, "Standard Review Plan," March 2010 (ADAMS Accession No. ML100351425). As described therein, as part of the regulatory standardization effort, the NRC staff has prepared STS for each of the light-water reactor nuclear designs. NUREG-1431 contains the STS for Westinghouse-designed plants.

3.0 TECHNICAL EVALUATION

During the review of TSTF-547, the NRC staff reviewed the proposed changes to NUREG-1431 and the technical justification for the changes provided in TSTF-547. The NRC staff reviewed the technical justification for the proposed changes to ensure the reasoning was logical, complete, and clearly written, as described in Chapter 16 of NUREG-0800. The NRC staff reviewed the proposed changes for continued compliance with the requirements of 10 CFR 50.36, and for consistency with conventional terminology and with the format and usage rules in the STS. The NRC staff considered whether there should be any limitations or conditions placed on adoption of the TSTF-547 by future applicants.

3.1 Provide Time to Correct Rod Movement Failures that Do Not Affect Operability Review

The proposed new Condition A of TS 3.1.5 and TS 3.1.6 for shutdown and control bank insertion limits would allow 24 hours to restore a single bank to be within its insertion limit when inserted below the insertion limit. With one shutdown or control bank inserted a maximum of 8 steps below the rod insertion limit, the RAs associated with new Condition A also require

verification that all other control (LCO 3.1.5, Condition A) and shutdown banks (LCO 3.1.6, Condition A) are within the insertion limits, and verification that the reactor can be shut down using control rods or boration. The completion time for these RAs is 1 hour.

The new conditions define limits of both duration and insertion if a bank is immovable due to failures external to the CRDM. A maximum of one control or shutdown bank may be inserted beyond the limits for a maximum of 24 hours, provided all other banks are within the insertion limits, and that the reactor could be shut down using control rods or boration. The new Condition A imposes a limit on the insertion of 8 steps less than the insertion limit. The value of 8 steps corresponds to the minimum number of steps that the rods must be moved to ensure correct performance of SR 3.1.4.2.

The NRC staff reviewed the justification for the proposed addition of Condition A to TS 3.1.5 and TS 3.1.6 provided in the Technical Evaluation Section of TSTF-547 to ensure the reasoning was logical, complete, and clearly written. The justification in TSTF-547 states:

1. All control and shutdown rod assemblies are required to be Operable. If a rod is untrippable (i.e., inoperable), then a plant shutdown is required in accordance with LCO 3.1.4, Condition A.

2. Only one control bank and shutdown bank may be inserted beyond insertion limits by no more than [16] steps. If one or more control banks or shutdown banks exceed the insertion limit, a brief time period is permitted to correct the condition and then a plant shutdown is required.

3. If one rod is not within the alignment limits, adequate SDM is verified and a power reduction is required by LCO 3.1.4, Condition B. If more than one rod is not within the alignment limit as defined in LCO 3.1.4, adequate SDM is verified and a plant shutdown is required.

The insertion limits are established to ensure a sufficient amount of negative reactivity can be rapidly inserted to shut down the reactor. The NRC staff finds that allowing continued full-power operations for 24 hours with a rod movement failure is acceptable for the following reasons:

1) The SDM continues to be met.

2) All control and shutdown rods are trippable (i.e., capable of being rapidly inserted into the core).

3) Only one bank may exceed insertion limits by no more than a specified number of steps.

4) All immovable rod assemblies are aligned.

5) The rods must be restored to within the insertion limits within 24 hours.

The change to TS 3.1.5 and TS 3.1.6 to provide time to correct rod movement failures that do not affect operability will allow sufficient time for diagnosis and repairs, while maintaining the safety function of the control rods, since the affected rods are still trippable. The thermal margins may be affected by power distribution changes due to control rod bank insertion, both during the insertion and during the resulting local xenon transient. However, insertions at or

near the typical value of 16 steps from fully withdrawn, as provided in the proposed changes to TS 3.1.5 and TS 3.1.6, would result in a very small negative reactivity impact at the top of active fuel. The resulting effect on the axial power distribution is not expected to be significant. In addition, alignment of all rods with the rod bank position (as per LCO 3.1.4) must be maintained, and it will be verified that the reactor can still be shut down. Therefore, the NRC staff has determined that the proposed 24-hour completion time for Condition A in LCO 3.1.5 and LCO 3.1.6 specifying shutdown bank and control bank insertion limits is acceptable.

The NRC staff concludes that TS 3.1.5 and TS 3.1.6, as modified by the addition of Condition A, continue to specify the minimum performance level of equipment needed for safe operation of the facility as an LCO and continue to specify the appropriate remedial measures if the LCO is not met. SRs are not being changed by the addition of Condition A. The NRC staff finds that the requirements of 10 CFR 50.36(c)(2) continue to be met because the minimum performance level of equipment needed for safe operation of the facility is contained in the LCO, and the appropriate remedial measures are specified if the LCO is not met.

3.2 Provide an Alternative to Frequent Verification of Rod Position Using the Movable Incore Detectors Review

LCO 3.1.7 requires that the MRPI and the Bank Demand Position Indication System be operable during power operation and startup. When one or more MRPI are inoperable, current TS 3.1.7 requires verification of rod position once per 8 hours using the movable incore detector system or a reduction in thermal power to less than or equal to 50 percent RTP within 8 hours. The proposed change provides an alternative set of RAs.

New RA A.2 requires use of the movable detector system to monitor the position of the rod within 8 hours of the inoperability of MRPI, once per 31 effective full power days (EFPD) thereafter, 8 hours after discovery of each unintended rod movement, 8 hours after each greater than 12-step movement of a rod with inoperable MRPI, prior to exceeding 50 percent RTP, and 8 hours after reaching RTP.

The implementation of new RA A.2 would allow use of an alternative monitoring scheme. The NRC staff finds that the new RA A.2 and completion times are more appropriate because they require verification of rod position following circumstances in which rod motion could occur. This is more appropriate than current TS 3.1.7 RA A.1, which requires verification of rod position using the movable incore detection system once per 8 hours, regardless of whether the rods have moved or not.

If the rod position indication is failed for an individual rod, its position is determined indirectly by use of the movable incore detectors. The NRC staff has determined that this change, which verifies rod position using the movable incore detectors based on the occurrence of events requiring rod motion rather than determining position on a specified frequency is acceptable, because events requiring rod motion of the shutdown bank and control banks A, B, and C are relatively infrequent during steady state operation. Events involving significant movement of rods in control bank D are also relatively infrequent. The indirect determination of rod position is required after significant changes in power level or following substantial rod motion.

The addition of the note to SR 3.1.4.1 stating that the SR is not required to be performed for rods associated with an inoperable MRPI or demand position indicator is appropriate because the RAs of TS 3.1.7 for an inoperable MRPI provide the appropriate actions for indirectly determining the position of the affected rods.

The NRC staff concludes that the addition of an alternative monitoring scheme to indirectly determine the position of rods associated with an inoperable MRPI is acceptable. TS 3.1.7, as modified, continues to specify the minimum performance level of equipment needed for safe operation of the facility as an LCO and continues to specify the appropriate remedial measures if the LCO is not met. The revised SR 3.1.4.1, which has been clarified to specify when it is required to be performed, continues to be an appropriate test to ensure that the necessary quality of systems is maintained. The NRC staff finds that the requirements of 10 CFR 50.36(c)(2) continue to be met because the minimum performance level of equipment needed for safe operation of the facility is contained in the LCO, and the appropriate remedial measures are specified if the LCO is not met. The NRC staff finds that the requirements of 10 CFR 50.36(c)(3) continue to be met because the revised SR provides the appropriate testing to ensure the necessary quality of components is maintained and that the LCO will be met.

3.3 Clarify SRs in TS 3.1.4 and TS 3.1.7 Review

3.3.1 Clarification of SR 3.1.4.1

LCO 3.1.4 requires that all shutdown and control rods shall be operable, and individual indicated rod positions shall be within 12 steps of their group step counter demand position. SR 3.1.4.1 requires verification of the individual rod positions within the alignment limit periodically. SR 3.1.4.1 cannot be performed for rods with an inoperable bank demand position indicator. Failure to meet an SR is considered a failure to meet an LCO requirement. Therefore, if SR 3.1.4.1 cannot be performed, entry into LCO 3.1.4 Condition D is required. LCO 3.1.4 Condition D applies when more than one rod is not within the alignment limit. The RA associated with Condition D requires, in part, that the reactor be in Mode 3 (hot standby) within 6 hours.

LCO 3.1.7 requires the MRPI and bank demand position indication to be operable. LCO 3.1.7 Condition D applies if one demand position indicator per bank is inoperable for one or more banks. Condition D RAs require verification that all MRPIs for the affected banks are operable and require verification that the most withdrawn rod and least withdrawn rod of the affected banks are less than or equal to [12] steps apart once per 8 hours. Alternatively, thermal power must be reduced to less than or equal to 50 percent RTP.

A note is being added to SR 3.1.4.1 stating that this SR is not required to be performed for rods associated with an inoperable demand position indicator or MRPI. The alignment limit is based on the demand position indicator. If the bank demand position indicator is inoperable, the SR cannot be performed.

Following modification of SR 3.1.4.1, Condition D of LCO 3.1.7 would be the applicable condition to be entered in the event of inoperable demand position indicators. The RAs associated with Condition D of LCO 3.1.7 provide the appropriate actions in this situation by requiring that the MRPIs are operable and that the individual rods in the bank are not misaligned by more than 12 steps.

3.3.2 Clarification of SR 3.1.4.1 and SR 3.1.7.1

LCO 3.1.4 requires that all shutdown and control rods be operable and individual indicated rod positions be within 12 steps of their group step counter demand position.

LCO 3.1.7 requires the MRPI and demand position indication to be operable.

SR 3.1.7.1 requires verification that each MRPI agree within [12] steps of the group demand position for the full indicated range of rod travel. This SR is performed once prior to criticality after each removal of the reactor head. Failure to meet an SR is considered a failure to meet the LCO per SR 3.0.1. The requirements of SRs must be satisfied in between performances of the surveillance test itself. If a control or shutdown rod is not within 12 steps of its bank demand position indication, then the requirements of both LCO 3.1.4 and LCO 3.1.7 are not met.

A note is being added to SR 3.1.7.1 stating that this SR is not required to be performed for rods that are known not to meet LCO 3.1.4. If a rod is known not to be within 12 steps of the group demand position, LCO 3.1.4 provides the appropriate RAs. With one rod not within the alignment limit, LCO 3.1.4 Condition B requires verification of SDM or boration until SDM is met, a reduction in RTP, periodic re-verification of SDM, verification that heat flux and nuclear enthalpy rise hot channel factors are within limits, and re-evaluation of safety analyses to confirm results remain valid for duration of operation under these conditions. If more than one rod is not within the alignment limit, the SDM must be determined by verifying that the SDM is within limits or by initiating boration to restore required SDM and shutdown the plant.

3.3.3 Evaluation of SR 3.1.4.1 and SR 3.1.7.1 Changes

The NRC staff reviewed the technical justification for the proposed changes provided in the Traveler TSTF-547 for logical reasoning, completeness and clarity. The purpose of the changes is to prescribe the appropriate Actions to be followed when equipment is inoperable.

TS 3.1.4 provides limits on rod alignment to ensure acceptable power peaking factors and local linear heat rates and an acceptable SDM, all of which are initial conditions in the applicable safety analyses. It is appropriate to consolidate requirements associated with rod misalignments in this TS. TS 3.1.7 provides requirements for instrumentation to monitor rod position. The instrumentation is used to verify that the rod alignment limits in TS 3.1.4 are satisfied. Similarly, it is appropriate to consolidate requirements associated with instrumentation operability in this TS.

The NRC staff concludes that the clarifications to SRs 3.1.4.1 and 3.1.7.1 to specify configurations in which performance of the SRs is not required are appropriate. The TSs, as modified, continue to specify the minimum performance level of equipment needed for safe operation of the facility as an LCO and continue to specify the appropriate remedial measures if the LCO is not met. The revised SRs 3.1.4.1 and 3.1.7.1 continue to be appropriate because they ensure the necessary quality of systems is maintained. The NRC staff finds that the requirements of 10 CFR 50.36(c)(2) and 10 CFR 50.36(c)(3) continue to be met.

3.4 Other Proposed Changes

The NRC staff found that the changes described in Section 2.2.4 above are editorial in nature and do not change the TS requirements, and are, therefore, acceptable.

The regulation at 10 CFR 50.36(a)(1) states, in part: "A summary statement of the bases or reasons for such specifications ... shall also be included in the application, but shall not become part of the technical specifications." Accordingly, along with the proposed TS changes, Exelon Generation Company, LLC also submitted TS Bases changes that correspond to the proposed STS changes. The NRC staff concludes that the TS Bases changes provided describe the

bases for the affected TSs and follow the "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" (58 FR 39132).

3.5 Variations from TSTF-547

The licensee proposed several variations from the changes described in TSTF-547, Revision 1. The NRC staff's review of these changes is provided below.

SR 3.1.4.2 in TSTF-547, Revision 1, as well as the STS in NUREG 1431, Revision 4, states: "Verify rod freedom of movement (trippability) by moving each rod not fully inserted in the core ≥ 10 steps in either direction."

The licensee proposed using a value of ≥ 8 steps rather than the value of ≥ 10 steps in TSTF 547 and the STS. The licensee stated that the value of 8 steps corresponds to the minimum number of steps that the rods must be moved to ensure correct performance of SR 3.1.4.2 due to the differences between Digital Rod Position Indication (DRPI) discussed in TSTF-547 and the Ginna MRPI. The staff asked the licensee to discuss the determination of the value of 8 steps used in Ginna SR 3.1.4.2 based on the Ginna MRPI and address acceptability of the use of 8 steps as the minimum rod movement. The licensee responded in its August 29, 2018, supplement that the true rod position on MRPI is always within ±8 steps of the indicated position (±6 steps due to the 12-step interval and ±2 steps transition uncertainty due to errors arising from linearity, repeatability, long-term drift, power source voltage, temperature variations, and coil sensitivity). In addition, the licensee described the MRPI system and stated that in order to verify rod position, a change of bar graph height must be observed (i.e., the bank must be inserted a minimum of ≥ 8 steps, as an insertion of less than 8 steps may not result in bar graph height change). The NRC staff finds this acceptable, as the value of ≥ 8 steps demonstrates the rod is free from mechanical binding and, therefore, can be tripped.

In Condition A to LCO 3.1.5 and LCO 3.1.6, TSTF 547 uses a value of ≤ [16] for the number of steps beyond the limits in the COLR for shutdown and control bank insertion limits, where the bracketed number [16] is to be replaced with the plant-specific minimum number of steps that the rods must be moved to ensure correct performance of SR 3.1.4.2. The licensee proposed 8 steps as the plant-specific value. While not a variation from TSTF 547, the NRC staff requested the licensee to provide a plant-specific justification for the use of 8 steps in Condition A of LCO 3.1.5 and LCO 3.1.6 in accordance with the NRC staff's safety evaluation approving TSTF 547. The licensee responded in its August 29, 2018, supplement that the 8 steps is Ginna's specific minimum number of steps that rods must be moved to ensure correct performance of SR 3.1.4.2, as noted above. In evaluating the value of 8 steps, the licensee considered both the design of the MRPI system, as well as the impact on the intent of LCO 3.1.5 and LCO 3.1.6. The licensee stated that the minimum of 8 steps ensures satisfactory completion of SR 3.1.4.2, while the rods are monitored and controlled during power operation to ensure that safety analyses assumptions for SDM, ejected rod worth, and power distribution power peaking are preserved. The NRC staff finds this acceptable, as this is the plant-specific value and is different from the TSTF 547 and STS value due to plant hardware (DRPI vs. MRPI) and consistent with the intent of SR 3.1.4.2 and LCO 3.1.5 and LCO 3.1.6.

The licensee proposed some editorial changes to be consistent with the current plant design. These changes were made because TSTF-547 assumes multiple shutdown banks, while Ginna has only one shutdown bank. The NRC staff finds that these differences are administrative in nature and do not affect the applicability of TSTF 547 and finds the changes acceptable.

TSTF-547, Revision 1, added RA A.2.2 to TS 3.1.7, "Rod Position Indication," which prohibits entering startup (Mode 2) from hot standby (Mode 3) with an inoperable rod position indication. In its license amendment request, the licensee stated that Ginna TSs and TS Bases for 3.1.7 will not include RA A.2.2 and will renumber RA A.2.1 to RA A.2. The licensee stated that this RA is made irrelevant, as the logical "OR" connector would allow the licensee to transition from RA A.2.1 and RA A.2.2 into either RA A.1 or RA A.3 (which do not have that requirement) and thereby not have to restore the inoperable rod position indication to operable status. When an LCO is not met, LCO 3.0.4.a allows entry into a mode in which an LCO is applicable when the associated actions to be entered permit continued operation in the mode for an unlimited period of time. Since the LCO permits continued operation with the specified RAs, entering startup from hot standby is allowed. Based on the above, the NRC staff determined that not including new RA A.2.2 is appropriate because it is unnecessary and could cause confusion.

3.6 Technical Conclusions

As discussed in 10 CFR 50.36, TSs are required to include items in specified categories, including LCOs and SRs. The proposed changes modify the LCOs, conditions, RAs, completion times, and SRs applicable to control rod and shutdown rod insertion and alignment limits and the instrumentation to monitor rod position and alignment. The STS continue to specify the LCOs and specify the remedial measures to be taken if one of these requirements is not satisfied. The STS continue to specify the appropriate SRs for tests and inspections to ensure the necessary quality of affected structures, systems, and components is maintained. Therefore, the NRC staff finds that the proposed LCOs and SRs meet the requirements of 10 CFR 50.36(c)(2) and 10 CFR 50.36(c)(3), respectively.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment on October 17, 2018. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes SRs. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on July 31, 2018 (83 FR 36976). Accordingly, the amendment meets 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 amendment.

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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Matthew Hamm
Robert Beaton

Date: October 31, 2018

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – ISSUANCE OF AMENDMENT NO. 131 RE: REVISE TECHNICAL SPECIFICATIONS TO ADOPT TECHNICAL SPECIFICATIONS TASK FORCE (TSTF) TRAVELER 547, "CLARIFICATION OF ROD POSITION REQUIREMENTS" (EPID L-2018-LLA-0179) DATED OCTOBER 31, 2018

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