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

June 8, 2011

Mr. John T. Carlin
Vice President R.E. Ginna Nuclear Power Plant
R.E. Ginna Nuclear Power Plant, LLC
1503 Lake Road
Ontario, NY 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - AMENDMENT RE: TECHNICAL SPECIFICATION TASK FORCE (TSTF)-286, "OPERATIONS INVOLVING POSITIVE REACTIVITY ADDITIONS" (TAC NO. ME5444)

Dear Mr. Carlin:

The Commission has issued the enclosed Amendment No. 112 to Renewed Facility Operating License No. DPR-18 for the R.E. Ginna Nuclear Power Plant. This amendment is in response to your application dated July 23, 2009, as supplemented by letter dated May 3, 2011.

The amendment revises Technical Specification actions requiring suspension of operations involving positive reactivity addition and revises various notes precluding reduction in boron concentration. The amendment is consistent with Technical Specification Task Force (TSTF)-286, Revision 2, Define "Operations Involving Positive Reactivity Additions."

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,

Douglas V Pickett

Douglas V. Pickett, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures:
1. Amendment No. 112 to Renewed License No. DPR-18
2. Safety Evaluation

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

R.E. GINNA NUCLEAR POWER PLANT, LLC

DOCKET NO. 50-244

R.E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 112
Renewed License No. DPR-18

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for amendment filed by the R.E. Ginna Nuclear Power Plant, LLC (the licensee) dated July 23, 2009, as supplemented on May 3, 2011, 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. 112, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the License and Technical Specifications

Date of Issuance: June 8, 2011

ATTACHMENT TO LICENSE AMENDMENT NO. 112

RENEWED FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove	Insert
3	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
3.3.1-1	3.3.1-1
3.3.1-2	3.3.1-2
3.3.1-3	3.3.1-3
3.3.1-4	3.3.1-4
3.3.1-5	3.3.1-5
3.3.1-6	3.3.1-6
3.3.1-7	3.3.1-7
3.3.1-8	3.3.1-8
3.3.1-9	3.3.1-9
3.3.1-10	3.3.1-10
3.3.1-11	3.3.1-11
3.3.1-12	3.3.1-12
3.3.1-13	3.3.1-13
3.3.1-14	3.3.1-14
3.3.1.15	3.3.1-15
3.3.1-16	3.3.1-16
---	3.3.1-17
3.4.5-1	3.4.5-1
3.4.5-2	3.4.5-2
3.4.6-1	3.4.6-1
3.4.6-2	3.4.6-2
3.4.7-1	3.4.7-1
3.4.7-2	3.4.7-2
3.4.8-1	3.4.8-1
3.4.8-2	3.4.8-2
3.8.2-1	3.8.2-1
3.8.2-2	3.8.2-2
3.8.2-3	3.8.2-3
3.8.5-1	3.8.5-1

Remove	Insert
3.8.5-2	3.8.5-2
3.8.8-1	3.8.8-1
3.8.8-2	3.8.8-2
3.8.10-1	3.8.10-1
3.8.10-2	3.8.10-2
3.9.2-1	3.9.2-1
3.9.2-2	3.9.2-2
3.9.4-1	3.9.4-1
3.9.4-2	3.9.4-2
3.9.5-1	3.9.5-1
3.9.5-2	3.9.5-2

(b) 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, 1979 (transmitted by letter dated December 20, 1979), as supplemented February 20, 1980, and March 5, 1980;

(3) 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) 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) 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 renewed 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

Ginna LLC 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. 112, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

(a) The licensee shall implement and maintain in effect all fire protection features described in the licensee's submittals referenced in and as approved or modified by the NRC's Fire Protection Safety Evaluation (SE) dated February 14, 1979, and

3.3 INSTRUMENTATION

3.3.1 Reactor Trip System (RTS) Instrumentation

LCO 3.3.1 The RTS instrumentation for each Function in Table 3.3.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.1-1.

ACTIONS

- NOTE -

Separate Condition entry is allowed for each Function.

	CONDITION		REQUIRED ACTION	COMPLETION TIME
A.	One or more Functions with one channel inoperable. OR Two source range channels inoperable.	A.1	Enter the Condition referenced in Table 3.3.1-1 for the channel(s).	Immediately
B.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	B.1	Restore channel to OPERABLE status.	48 hours
C.	Required Action and associated Completion Time of Condition B not met.	C.1 AND	Be in MODE 3.	6 hours
		C.2 AND	Initiate action to fully insert all rods.	6 hours
		C.3	Place Control Rod Drive System in a condition incapable of rod withdrawal.	7 hours

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. As required by Required Action A.1 and referenced by Table 3.3.1-1.	D.1 - - - - - - - - - - - - - - - - - - - NOTE - The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. - - - - - - - - - - - - - - - - - - Place channel in trip.	6 hours
E. As required by Required Action A.1 and referenced by Table 3.3.1-1.	E.1 Reduce THERMAL POWER to < 5E-11 amps. OR E.2 - - - - - - - - - - - - - - - - - - - NOTE - Required Action E.2 is not applicable when: a. Two channels are inoperable, or b. THERMAL POWER is < 5E-11 amps. - - - - - - - - - - - - - - - - - - Increase THERMAL POWER to ≥ 8% RTP.	2 hours 2 hours
F. As required by Required Action A.1 and referenced by Table 3.3.1-1.	F.1 Open RTBs and RTBBs upon discovery of two inoperable channels. AND	Immediately upon discovery of two inoperable channels

CONDITION		REQUIRED ACTION		COMPLETION TIME
		F.2	- NOTE - Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM. Suspend operations involving positive reactivity additions.	Immediately
		AND		
		F.3	Restore channel to OPERABLE status.	48 hours
G.	Required Action and associated Completion Time of Condition D, E, or F is not met.	G.1	Be in MODE 3.	6 hours
H.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	H.1	Restore at least one channel to OPERABLE status upon discovery of two inoperable channels.	1 hour from discovery of two inoperable channels
		AND		
		H.2	- NOTE - Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM. Suspend operations involving positive reactivity additions.	Immediately
		AND		

CONDITION		REQUIRED ACTION		COMPLETION TIME
		H.3	Restore channel to OPERABLE status.	48 hours
I.	Required Action and associated Completion Time of Condition H not met.	I.1 AND	Initiate action to fully insert all rods.	Immediately
		I.2	Place the Control Rod Drive System in a condition incapable of rod withdrawal.	1 hour
J.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	J.1	- - - - - - - - - - - - - - - - - - - NOTE - Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SDM. - - - - - - - - - - - - - - - - - - Suspend operations involving positive reactivity additions.	Immediately
		AND		
		J.2	Perform SR 3.1.1.1.	12 hours AND Once per 12 hours thereafter
K.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	K.1	- - - - - - - - - - - - - - - - - - - NOTE - The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. - - - - - - - - - - - - - - - - - - Place channel in trip.	6 hours

CONDITION	REQUIRED ACTION	COMPLETION TIME
L. Required Action and associated Completion Time of Condition K not met.	L.1 Reduce THERMAL POWER to < 8.5% RTP.	6 hours
M. As required by Required Action A.1 and referenced by Table 3.3.1-1.	M.1 ------------------ - NOTE - The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ------------------ Place channel in trip.	6 hours
N. As required by Required Action A.1 and referenced by Table 3.3.1-1.	N.1 Restore channel to OPERABLE status.	6 hours
O. Required Action and associated Completion Time of Condition M or N not met.	O.1 Reduce THERMAL POWER to < 30% RTP.	6 hours
P. As required by Required Action A.1 and referenced by Table 3.3.1-1.	P.1 ------------------ - NOTE - The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. ------------------ Place channel in trip.	6 hours
Q. Required Action and Associated Completion Time of Condition P not met.	Q.1 Reduce THERMAL POWER to < 50% RTP. <u>AND</u>	6 hours

CONDITION		REQUIRED ACTION		COMPLETION TIME
		Q.2.1	Verify Steam Dump System is OPERABLE. OR	7 hours
		Q.2.2	Reduce THERMAL POWER to < 8% RTP.	7 hours
R.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	R.1	- NOTE - One train may be bypassed for up to 4 hours for surveillance testing provided the other train is OPERABLE. Restore train to OPERABLE status.	6 hours
S.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	S.1	Verify interlock is in required state for existing plant conditions. OR	1 hour
		S.2	Declare associated RTS Function channel(s) inoperable.	1 hour

CONDITION		REQUIRED ACTION		COMPLETION TIME
T.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	T.1	- NOTE - 1. One train may be bypassed for up to 2 hours for surveillance testing, provided the other train is OPERABLE. 2. One RTB may be bypassed for up to 6 hours for maintenance on undervoltage or shunt trip mechanisms, provided the other train is OPERABLE. Restore train to OPERABLE status.	1 hour
U.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	U.1	Restore at least one trip mechanism to OPERABLE status upon discovery of two RTBs with inoperable trip mechanisms.	1 hour from discovery of two inoperable trip mechanisms
		AND		
		U.2	Restore trip mechanism to OPERABLE status.	48 hours
V.	Required Action and associated Completion Time of Condition R, S, T, or U not met.	V.1	Be in MODE 3.	6 hours
W.	As required by Required Action A.1 and referenced by Table 3.3.1-1.	W.1	Restore at least one trip mechanism to OPERABLE status upon discovery of two RTBs with inoperable trip mechanisms.	1 hour from discovery of two inoperable trip mechanisms
		AND		

CONDITION		REQUIRED ACTION		COMPLETION TIME
		W.2	Restore trip mechanism or train to OPERABLE status.	48 hours
X.	Required Action and associated Completion Time of Condition W not met.	X.1 AND	Initiate action to fully insert all rods.	Immediately
		X.2	Place the Control Rod Drive System in a Condition incapable of rod withdrawal.	1 hour

SURVEILLANCE REQUIREMENTS

- NOTE -
Refer to Table 3.3.1-1 to determine which SRs apply for each RTS Function.

SURVEILLANCE		FREQUENCY
SR 3.3.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.2	- NOTE - Required to be performed within 12 hours after THERMAL POWER is ≥ 50% RTP.	
	Compare results of calorimetric heat balance calculation to Nuclear Instrumentation System (NIS) channel output and adjust if calorimetric power is > 2% higher than indicated NIS power.	24 hours
SR 3.3.1.3	- NOTE - 1. Required to be performed within 7 days after THERMAL POWER is ≥ 50% RTP but prior to exceeding 90% RTP following each refueling and if the Surveillance has not been performed within the last 31 EFPD. 2. Performance of SR 3.3.1.6 satisfies this SR.	
	Compare results of the incore detector measurements to NIS AFD and adjust if absolute difference is ≥ 3%.	31 effective full power days (EFPD)

	SURVEILLANCE	FREQUENCY
SR 3.3.1.4	Perform TADOT.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.5	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.6	- NOTE - Not required to be performed until 7 days after THERMAL POWER is ≥ 50% RTP, but prior to exceeding 90% RTP following each refueling. Calibrate excore channels to agree with incore detector measurements.	92 EFPD
SR 3.3.1.7	- NOTE - Not required to be performed for source range instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entering MODE 3. Perform COT.	92 days
SR 3.3.1.8	- NOTE - 1. Not required for power range and intermediate range instrumentation until 4 hours after reducing power < 6% RTP. 2. Not required for source range instrumentation until 4 hours after reducing power < 5E-11 amps. Perform COT.	92 days
SR 3.3.1.9	- NOTE - Setpoint verification is not required. Perform TADOT.	92 days

	SURVEILLANCE	FREQUENCY
SR 3.3.1.10	- NOTE - Neutron detectors are excluded. Perform CHANNEL CALIBRATION.	24 months
SR 3.3.1.11	Perform TADOT.	24 months
SR 3.3.1.12	- NOTE - Setpoint verification is not required. Perform TADOT.	Prior to reactor startup if not performed within previous 31 days
SR 3.3.1.13	Perform COT.	24 months

Table 3.3.1-1
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	LIMITING SAFETY SYSTEM SETTINGS[a]
1.	Manual Reactor Trip	1, 2, 3[b], 4[b], 5[b]	2	B,C	SR 3.3.1.11	NA
2.	Power Range Neutron Flux					
	a. High	1, 2	4	D,G	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.10	≤ 109.27% RTP
	b. Low	1[c], 2	4	D,G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.10	≤ 29.28% RTP
3.	Intermediate Range Neutron Flux	1[c], 2	2	E,G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.10	(d)
4.	Source Range Neutron Flux	2[e]	2	F,G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.10	(d)
		3[b], 4[b], 5[b]	2	H,I	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	(d)
		3[f], 4[f], 5[f]	1	J	SR 3.3.1.1 SR 3.3.1.10	NA
5.	Overtemperature ΔT	1, 2	4	D,G	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.10	Refer to Note 1
6.	Overpower ΔT	1, 2	4	D,G	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	Refer to Note 2

Table 3.3.1-1
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	LIMITING SAFETY SYSTEM SETTINGS[a]
7.	Pressurizer Pressure					
	a. Low	1[g]	4	K,L	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≥ 1791.3 psig
	b. High	1, 2	3	D,G	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ 2396.2 psig
8.	Pressurizer Water Level-High	1, 2	3	D,G	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ 96.47%
9.	Reactor Coolant Flow-Low					
	a. Single Loop	1[h]	3 per loop	M,O	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≥ 89.86%
	b. Two Loops	1[i]	3 per loop	K,L	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≥ 89.86%
10.	Reactor Coolant Pump (RCP) Breaker Position					
	a. Single Loop	1[h]	1 per RCP	N,O	SR 3.3.1.11	NA
	b. Two Loops	1[j]	1 per RCP	K,L	SR 3.3.1.11	NA
11.	Undervoltage-Bus 11A and 11B	1[g]	2 per bus	K,L	SR 3.3.1.9 SR 3.3.1.10	[d]
12.	Underfrequency-Bus 11A and 11B	1[g]	2 per bus	K,L	SR 3.3.1.9 SR 3.3.1.10	≥ 57.5 HZ

Table 3.3.1-1
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	LIMITING SAFETY SYSTEM SETTINGS[a]
13.	Steam Generator (SG) Water Level-Low Low	1, 2	3 per SG	D,G	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≥ 13.88%
14.	Turbine Trip					
	a. Low Autostop Oil Pressure	1[(k)(l)]	3	P,Q	SR 3.3.1.10 SR 3.3.1.12	(d)
	b. Turbine Stop Valve Closure	1[(k)(l)]	2	P,Q	SR 3.3.1.12	NA
15.	Safety Injection (SI) Input from Engineered Safety Feature Actuation System (ESFAS)	1, 2	2	R,V	SR 3.3.1.11	NA

Table 3.3.1-1
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	LIMITING SAFETY SYSTEM SETTINGS[a]
16.	Reactor Trip System Interlocks					
	a. Intermediate Range Neutron Flux, P-6	2[e]	2	S,V	SR 3.3.1.10 SR 3.3.1.13	≥ 5E-11 amp
	b. Low Power Reactor Trips Block, P-7	1[g]	4 (power range only)	S,V	SR 3.3.1.10 SR 3.3.1.13	≤ 8.0% RTP
	c. Power Range Neutron Flux, P-8	1[h]	4	S,V	SR 3.3.1.10 SR 3.3.1.13	≤ 29.0% RTP
	d. Power Range Neutron Flux, P-9	1[i]	4	S,V	SR 3.3.1.10 SR 3.3.1.13	≤ 50.0% RTP
		1[k]	4	S,V	SR 3.3.1.10 SR 3.3.1.13	≤ 8.0% RTP
	e. Power Range Neutron Flux, P-10	1[c], 2	4	S,V	SR 3.3.1.10 SR 3.3.1.13	≥ 6.0% RTP
17.	Reactor Trip Breakers[m]	1, 2 3[b], 4[b], 5[b]	2 trains 2 trains	T,V W,X	SR 3.3.1.4 SR 3.3.1.4	NA NA
18.	Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms	1, 2 3[b], 4[b], 5[b]	1 each per RTB 1 each per RTB	U,V W,X	SR 3.3.1.4 SR 3.3.1.4	NA NA
19.	Automatic Trip Logic	1, 2 3[b], 4[b], 5[b]	2 trains 2 trains	R,V W,X	SR 3.3.1.5 SR 3.3.1.5	NA NA

(a)

A channel is OPERABLE when both of the following conditions are met:

1. The absolute difference between the as-found Trip Setpoint (TSP) and the previous as-left TSP is within the COT Acceptance Criteria. The COT Acceptance Criteria is defined as:

   |as-found TSP - previous as-left TSP| ≤ COT uncertainty

   The COT uncertainty shall not include the calibration tolerance.

2. The as-left TSP is within the established calibration tolerance band about the nominal TSP. The nominal TSP is the desired setting and shall not exceed the Limiting Safety System Setting (LSSS). The LSSS and the established calibration tolerance band are defined in accordance with the Ginna Instrument Setpoint Methodology. The channel is considered operable even if the as-left TSP is non-conservative with respect to the LSSS provided that the as-left TSP is within the established calibration tolerance band.

(b) With Control Rod Drive (CRD) System capable of rod withdrawal or all rods not fully inserted.

(c) THERMAL POWER < 6% RTP.

(d) UFSAR Table 7.2-3.

(e) Both Intermediate Range channels < 5E-11 amps.

(f) With CRD System incapable of withdrawal and all rods fully inserted. In this condition, the Source Range Neutron Flux function does not provide a reactor trip, only indication.

(g) THERMAL POWER ≥ 8.5% RTP.

(h) THERMAL POWER ≥ 30% RTP.

(i) THERMAL POWER ≥ 8.5% RTP and Reactor Coolant Flow-Low (Single Loop) trip Function blocked.

(j) THERMAL POWER ≥ 8.5% RTP and RCP Breaker Position (Single Loop) trip Function blocked.

(k) THERMAL POWER > 8% RTP, and either no circulating water pump breakers closed, or condenser vacuum ≤ 20".

(l) THERMAL POWER ≥ 50% RTP, 1 of 2 circulating water pump breakers closed, and condenser vacuum > 20".

(m) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.

Table 3.3.1-1 (Note 1)
Overtemperature ΔT

- NOTE -
The Overtemperature ΔT Function Limiting Safety System Setting is defined by:

$$\text{Overtemperature } \Delta T \leq \Delta T_0 \{K_1 + K_2 (P-P') - K_3 (T-T') [(1+\tau_1 s) / (1+\tau_2 s)] - f_1(\Delta I)\}$$

Where:

ΔT is measured RCS ΔT, °F.
ΔT_0 is the indicated ΔT at RTP, °F.

s is the Laplace transform operator, sec^{-1}.

T is the measured RCS average temperature, °F.
T' is the nominal T_{avg} at RTP, °F.

P is the measured pressurizer pressure, psig.
P' is the nominal RCS operating pressure, psig.

K_1 is the Overtemperature ΔT reactor trip setpoint, [*].
K_2 is the Overtemperature ΔT reactor trip depressurization setpoint penalty coefficient, [*]/psi.
K_3 is the Overtemperature ΔT reactor trip heatup setpoint penalty coefficient, [*]/°F.

τ_1 is the measured lead time constant, [*] seconds.
τ_2 is the measured lag time constant, [*] seconds.

$f(\Delta I)$ is a function of the indicated difference between the top and bottom detectors of the Power Range Neutron Flux channels where q_t and q_b are the percent power in the top and bottom halves of the core, respectively, and $q_t + q_b$ is the total THERMAL POWER in percent RTP.

$f_1(\Delta I) = [*] \{[*] - (q_t - q_b)\}$ when $q_t - q_b \leq$ [*]% RTP

$f_1(\Delta I) = 0\%$ of RTP when [*] % RTP $< q_t - q_b \leq$ [*]% RTP

$f_1(\Delta I) = [*] \{(q_t - q_b) - [*]\}$ when $q_t - q_b >$ [*]% RTP

* These values denoted with [*] are specified in the COLR.

Table 3.3.1-1 (Note 2)
Overpower ΔT

- NOTE -

The Overpower ΔT Function Limiting Safety System Setting is defined by:

$$\text{Overpower } \Delta T \leq \Delta T_0 \{K_4 - K_5 (T-T') - K_6 [(\tau_3 sT) / (\tau_3 s+1)] - f_2(\Delta I)\}$$

Where:

ΔT is measured RCS ΔT, °F.
ΔT_0 is the indicated ΔT at RTP, °F.

s is the Laplace transform operator, sec^{-1}.

T is the measured RCS average temperature, °F.
T' is the nominal T_{avg} at RTP, °F.

K_4 is the Overpower ΔT reactor trip setpoint, [*].
K_5 is the Overpower ΔT reactor trip heatup setpoint penalty coefficient which is:
[*]/°F for $T < T'$ and;
[*]/°F for $T \geq T'$.
K_6 is the Overpower ΔT reactor trip thermal time delay setpoint penalty which is:
[*]/°F for increasing T and;
[*]/°F for decreasing T.

τ_3 is the measured impulse/lag time constant, [*] seconds.

$f_2(\Delta I)$ = [*]

* These values denoted with [*] are specified in the COLR.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.5 RCS Loops - MODES 1 ≤ 8.5% RTP, 2, and 3

LCO 3.4.5 Two RCS loops shall be OPERABLE and one loop shall be in operation.

- NOTE -

Both reactor coolant pumps may be de-energized in MODE 3 for ≤ 1 hour per 8 hour period provided:

a. No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1; and

b. Core outlet temperature is maintained at least 10°F below saturation temperature.

APPLICABILITY: MODES 1 ≤ 8.5% RTP,
MODES 2 and 3.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One RCS loop inoperable.	A.1	Verify SDM is within limits specified in the COLR.	Once per 12 hours
		AND		
		A.2	Restore inoperable RCS loop to OPERABLE status.	72 hours
B.	Required Action and associated Completion Time of Condition A not met.	B.1	Be in MODE 4.	12 hours

CONDITION		REQUIRED ACTION		COMPLETION TIME
C.	Both RCS loops inoperable. OR No RCS loop in operation.	C.1	De-energize all CRDMs. AND	Immediately
		C.2	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1. AND	Immediately
		C.3	Initiate action to restore one RCS loop to OPERABLE status and operation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.5.1	Verify required RCS loop is in operation.	12 hours
SR 3.4.5.2	Verify steam generator secondary side water levels are ≥ 16% for two RCS loops.	12 hours
SR 3.4.5.3	Verify correct breaker alignment and indicated power are available to the required RCP that is not in operation.	7 days

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.6 RCS Loops - MODE 4

LCO 3.4.6 Two loops consisting of any combination of RCS loops and residual heat removal (RHR) loops shall be OPERABLE, and one loop shall be in operation.

- NOTE -

1. All reactor coolant pumps (RCPs) and RHR pumps may be de-energized for ≤ 1 hour per 8 hour period provided:

   a. No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1; and

   b. Core outlet temperature is maintained at least 10°F below saturation temperature.

2. No RCP shall be started with any RCS cold leg temperature less than or equal to the LTOP enable temperature specified in the PTLR unless:

   a. The secondary side water temperature of each steam generator (SG) is ≤ 50°F above each of the RCS cold leg temperatures; or

   b. The pressurizer water volume is < 324 cubic feet (38% level).

APPLICABILITY: MODE 4.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One RCS loop inoperable. AND Two RHR loops inoperable.	A.1	Initiate action to restore a second loop to OPERABLE status.	Immediately

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One RHR loop inoperable. AND Two RCS loops inoperable.	- NOTE - Required Action B.1 is not applicable if all RCS and RHR loops are inoperable and Condition C is entered. B.1 Be in MODE 5.	24 hours
C. All RCS and RHR loops inoperable. OR No RCS or RHR loop in operation.	C.1 Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1. AND C.2 Initiate action to restore one loop to OPERABLE status and operation.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.6.1	Verify one RHR or RCS loop is in operation.	12 hours
SR 3.4.6.2	Verify SG secondary side water level is $\geq$ 16% for each required RCS loop.	12 hours
SR 3.4.6.3	Verify correct breaker alignment and indicated power are available to the required pump that is not in operation.	7 days

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.7 RCS Loops - MODE 5, Loops Filled

LCO 3.4.7 One residual heat removal (RHR) loop shall be OPERABLE and in operation, and either:

a. One additional RHR loop shall be OPERABLE; or

b. The secondary side water level of at least one steam generator (SG) shall be ≥ 16%.

- NOTE -

1. The RHR pump of the loop in operation may be de-energized for ≤ 1 hour per 8 hour period provided:

   a. No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1; and

   b. Core outlet temperature is maintained at least 10°F below saturation temperature.

2. One required RHR loop may be inoperable for ≤ 2 hours for surveillance testing provided that the other RHR loop is OPERABLE and in operation.

3. No reactor coolant pump shall be started with one or more RCS cold leg temperatures less than or equal to the LTOP enable temperature specified in the PTLR unless:

   a. The secondary side water temperature of each SG is ≤ 50°F above each of the RCS cold leg temperatures; or

   b. The pressurizer water volume is < 324 cubic feet (38% level).

4. All RHR loops may be removed from operation during planned heatup to MODE 4 when at least one RCS loop is in operation.

APPLICABILITY: MODE 5 with RCS loops filled.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One RHR loop inoperable. AND Both SGs secondary side water levels not within limits.	A.1	Initiate action to restore a second RHR loop to OPERABLE status. OR	Immediately
		A.2	Initiate action to restore required SG secondary side water levels to within limits.	Immediately
B.	Both RHR loops inoperable. OR No RHR loop in operation.	B.1	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1. AND	Immediately
		B.2	Initiate action to restore one RHR loop to OPERABLE status and operation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.7.1	Verify one RHR loop is in operation.	12 hours
SR 3.4.7.2	Verify SG secondary side water level is $\geq$ 16% in the required SG.	12 hours
SR 3.4.7.3	Verify correct breaker alignment and indicated power are available to the required RHR pump that is not in operation.	7 days

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.8 RCS Loops - MODE 5, Loops Not Filled

LCO 3.4.8 Two residual heat removal (RHR) loops shall be OPERABLE and one RHR loop shall be in operation.

- NOTE -

1. All RHR pumps may be de-energized for ≤ 15 minutes when switching from one loop to another provided:

   a. No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1; and

   b. Core outlet temperature is maintained at least 10°F below saturation temperature; and

   c. No draining operations to further reduce the RCS water volume are permitted.

2. One RHR loop may be inoperable for ≤ 2 hours for surveillance testing provided that the other RHR loop is OPERABLE and in operation.

APPLICABILITY: MODE 5 with RCS loops not filled.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One RHR loop inoperable.	A.1	Initiate action to restore RHR loop to OPERABLE status.	Immediately
B.	Both RHR loops inoperable. OR No RHR loop in operation.	B.1 AND	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1.	Immediately

CONDITION	REQUIRED ACTION	COMPLETION TIME
	B.2 Initiate action to restore one RHR loop to OPERABLE status and operation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.8.1	Verify one RHR loop is in operation.	12 hours
SR 3.4.8.2	Verify correct breaker alignment and indicated power are available to the RHR pump that is not in operation.	7 days

3.8 ELECTRICAL POWER SYSTEMS

3.8.2 AC Sources - MODES 5 and 6

LCO 3.8.2 The following AC electrical power sources shall be OPERABLE:

a. One qualified independent offsite power circuit connected between the offsite transmission network and each of the onsite 480 V safeguard buses required by LCO 3.8.10, "Distribution Systems - MODES 5 and 6"; and

b. One emergency diesel generator (DG) capable of supplying one train of the onsite 480 V safeguard bus(es) required by LCO 3.8.10.

APPLICABILITY: MODES 5 and 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Offsite power to one or more required 480 V safeguards bus(es) inoperable.	- NOTE - Enter applicable Conditions and Required Actions of LCO 3.8.10, with one required train de-energized as a result of Condition A.	
	A.1 Declare affected required feature(s) inoperable.	Immediately
	OR	

CONDITION	REQUIRED ACTION	COMPLETION TIME
	A.2.1 Suspend CORE ALTERATIONS. AND	Immediately
	A.2.2 Suspend movement of irradiated fuel assemblies. AND	Immediately
	A.2.3 Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration. AND	Immediately
	A.2.4 Initiate action to restore required offsite power circuit to OPERABLE status.	Immediately
B. DG to the required 480 V safeguards bus(es) inoperable.	B.1 Suspend CORE ALTERATIONS. AND	Immediately
	B.2 Suspend movement of irradiated fuel assemblies. AND	Immediately
	B.3 Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration. AND	Immediately
	B.4 Initiate action to restore required DG to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.8.2.1	For AC sources required to be OPERABLE, the following SRs are applicable: SR 3.8.1.1 SR 3.8.1.4 SR 3.8.1.2 SR 3.8.1.5	In accordance with applicable SRs

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources - MODES 5 and 6

LCO 3.8.5 DC electrical power sources shall be OPERABLE to support the DC electrical power distribution subsystem required by LCO 3.8.10, "Distribution Systems - MODES 5 and 6."

APPLICABILITY: MODES 5 and 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required DC electrical power source(s) inoperable.	A.1 Declare affected required feature(s) inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of irradiated fuel assemblies.	Immediately
	AND	
	A.2.3 Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration.	Immediately
	AND	
	A.2.4 Initiate action to restore required DC electrical power source(s) to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.5.1	For DC sources required to be OPERABLE, SR 3.8.4.1 is applicable.	In accordance with applicable SR

3.8 ELECTRICAL POWER SYSTEMS

3.8.8 AC Instrument Bus Sources - MODES 5 and 6

LCO 3.8.8 AC instrument bus power sources shall be OPERABLE to support the onsite Class 1E AC instrument bus electrical power distribution subsystem required by LCO 3.8.10, "Distribution Systems - MODES 5 and 6."

APPLICABILITY: MODES 5 and 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required AC instrument bus power source(s) inoperable.	A.1 Declare affected required feature(s) inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of irradiated fuel assemblies.	Immediately
	AND	
	A.2.3 Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration.	Immediately
	AND	
	A.2.4 Initiate action to restore required AC instrument bus power source(s) to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.8.8.1	Verify correct static switch alignment to required AC instrument bus(es).	7 days
SR 3.8.8.2	Verify correct Class 1E CVT alignment to the required AC instrument bus.	7 days

3.8 ELECTRICAL POWER SYSTEMS

3.8.10 Distribution Systems - MODES 5 and 6

LCO 3.8.10 The necessary trains(s) of the following electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE:

a. AC power;

b. AC instrument bus power; and

c. DC power.

APPLICABILITY: MODES 5 and 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required electrical power distribution train(s) inoperable.	A.1 Declare associated supported required feature(s) inoperable. OR	Immediately

CONDITION	REQUIRED ACTION	COMPLETION TIME
	A.2.1 Suspend CORE ALTERATIONS. AND	Immediately
	A.2.2 Suspend movement of irradiated fuel assemblies. AND	Immediately
	A.2.3 Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration. AND	Immediately
	A.2.4 Initiate actions to restore required electrical power distribution train(s) to OPERABLE status. AND	Immediately
	A.2.5 Declare associated required residual heat removal loop(s) inoperable and not in operation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.10.1	Verify correct breaker alignments and voltage to required electrical power distribution trains.	7 days

3.9 REFUELING OPERATIONS

3.9.2 Nuclear Instrumentation

LCO 3.9.2 Two source range neutron flux monitors shall be OPERABLE.

APPLICABILITY: MODE 6.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One source range neutron flux monitor inoperable.	A.1	Suspend CORE ALTERATIONS.	Immediately
		AND		
		A.2	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
B.	Two source range neutron flux monitors inoperable.	B.1	Initiate action to restore one source range neutron flux monitor to OPERABLE status.	Immediately
		AND		
		B.2	Perform SR 3.9.1.1.	4 hours AND Once per 12 hours thereafter
C.	No audible count rate.	C.1	Suspend CORE ALTERATIONS.	Immediately
		AND		

CONDITION	REQUIRED ACTION	COMPLETION TIME
	C.2 Suspend positive reactivity additions. AND	Immediately
	C.3 Perform SR 3.9.1.1	4 hours AND Once per 12 hours thereafter

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.9.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.9.2.2	- NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. Perform CHANNEL CALIBRATION.	24 months

3.9 REFUELING OPERATIONS

3.9.4 Residual Heat Removal (RHR) and Coolant Circulation - Water Level ≥ 23 Ft

LCO 3.9.4 One RHR loop shall be OPERABLE and in operation.

- NOTE -

The required RHR loop may be removed from operation for ≤ 1 hour per 8 hour period, provided no operations are permitted that would cause introduction of coolant into the Reactor Coolant System (RCS) with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1 .

APPLICABILITY: MODE 6 with the water level ≥ 23 ft above the top of reactor vessel flange.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. RHR loop requirements not met.	A.1	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
	AND		
	A.2	Suspend loading irradiated fuel assemblies in the core.	Immediately
	AND		
	A.3	Initiate action to satisfy RHR loop requirements.	Immediately
	AND		

CONDITION	REQUIRED ACTION		COMPLETION TIME
	A.4	Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify one RHR loop is in operation and circulating reactor coolant.	12 hours

3.9 REFUELING OPERATIONS

3.9.5 Residual Heat Removal (RHR) and Coolant Circulation - Water Level < 23 Ft

LCO 3.9.5 Two RHR loops shall be OPERABLE, and one RHR loop shall be in operation.

APPLICABILITY: MODE 6 with the water level < 23 ft above the top of reactor vessel flange.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	Less than the required number of RHR loops OPERABLE.	A.1	Initiate action to restore RHR loop(s) to OPERABLE status.	Immediately
		OR		
		A.2	Initiate action to establish ≥ 23 ft of water above the top of reactor vessel flange.	Immediately
B.	No RHR loop in operation.	B.1	Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
		AND		
		B.2	Initiate action to restore one RHR loop to operation.	Immediately
		AND		
		B.3	Close all containment penetrations providing direct access from containment to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.9.5.1	Verify one RHR loop is in operation and circulating reactor coolant.	12 hours
SR 3.9.5.2	Verify correct breaker alignment and indicated power available to the required RHR pump that is not in operation.	7 days

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 112 TO RENEWED FACILITY

OPERATING LICENSE NO. DPR-18

R.E. GINNA NUCLEAR POWER PLANT, LLC

R.E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated July 23, 2009 (Reference 1), as supplemented by letter dated May 3, 2011, (Reference 2), R.E. Ginna Nuclear Power Plant, LLC (the licensee) submitted a request for changes to the R.E. Ginna Nuclear Power Plant (Ginna) Technical Specifications (TSs). The proposed changes would revise the Required Actions requiring suspension of operations involving positive reactivity additions and various notes that preclude reduction in boron concentration. The proposed changes would limit the introduction of positive reactivity such that the required margin to the Shutdown Margin (SDM) and refueling boron concentration limits will be maintained. These proposed changes are similar to those proposed in the Nuclear Regulatory Commission (NRC) approved Technical Specification Task Force (TSTF) change traveler TSTF-286, Revision 2, as modified by the NRC in a letter dated May 16, 2003 (Reference 3).

The letter dated May 3, 2011, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the FEDERAL REGISTER.

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), 50.36, "Technical specifications," requires that each license operate in accordance with plant-specific TSs. 10 CFR 50.36 requires that the TSs include items in the following categories: (1) safety limits, limiting safety systems settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls.

The licensee adopted the Improved TSs in License Amendment Number 61 (Reference 4) based on NUREG-1431, "Standard Technical Specifications [STS], Westinghouse Plants," Revision 0, dated September 1992. Since then, industry and the NRC staff have been working

to improve the STS, in NUREG-1430 through NUREG-1434 for the different plant vendors, and as a result, generic changes have been developed for the STS in NUREG-1431.

In its license amendment request, the licensee is requesting to adopt generic changes to the STS proposed by the industry in TSTF-286, Revision 2, that were approved by the NRC staff in a letter dated July 6, 2000 (Reference 5). The NRC staff's approval was subsequently modified by the NRC staff in Reference 3. It is this modified version of the approved TSTF-286, Revision 2 that is currently incorporated into the STS, and will be referred to in this safety evaluation as the approved TSTF-286. This TSTF revises Required Actions to suspend operations involving positive reactivity additions and limiting conditions for operation (LCOs) notes to prevent operations involving a reduction in reactor coolant system (RCS) boron concentration. The proposed changes limit the introduction into the RCS of reactivity more positive than that required to meet the required SDM or refueling boron concentration, as applicable. TSTF-286 provides a model for licensees seeking to revise their plant TSs and clarify limits on the introduction of reactivity such that the required SDM or refueling boron concentration will be satisfied. Proper adoption of TSTF-286 would bring the Ginna TSs into closer alignment with the STS.

10 CFR Part 50, Appendix A, General Design Criteria 26, "Reactivity control system redundancy and capability," requires that two independent reactivity control systems of different design principals shall be provided. The licensee employs two independent reactivity control systems. One uses the movable control and shutdown rod cluster control assemblies (RCCAs), and the other uses the chemical and volume control system (CVCS) to adjust the soluble boron concentration in the reactor coolant system (RCS). In Modes 1 and 2, both systems are used to compensate for the reactivity effects from fuel and coolant temperature changes in the RCS during power operation from full load to a no-load condition. In Modes 3, 4, and 5, the CVCS is used to compensate for the reactivity effects from core temperature and xenon changes. In Mode 6, the CVCS is used to maintain the boron concentration within the required limits.

The Ginna SDM limit provides sufficient subcritical reactivity margin to ensure that the specified acceptable fuel design limits (SAFDLs) will not be exceeded for normal operation and anticipated operational occurrences (AOOs). The SDM definition assumes that the single Rod Cluster Control Assembly (RCCA) with the highest reactivity worth remains fully withdrawn following a reactor scram. In Modes 1 and 2, TSs 3.1.4, "Rod Group Alignment Limits," 3.1.5, "Shutdown Bank Insertion Limit," and 3.1.6, "Control Bank Insertion Limits," satisfy the required SDM by limiting the insertion of the control and shutdown rod banks. Small reactivity changes due to RCS coolant inventory management and temperature control are also considered in specifying SDM, including moderator temperature coefficient (MTC) effects. At the beginning of core life, a positive MTC coefficient must be considered as allowed by TS 3.1.3, "Moderator Temperature Coefficient (MTC)." In Mode 2 with $k_{eff} < 1.0$, and Modes 3, 4, and 5, the TSs specify the required SDM by reference to the Core Operating Limits Report (COLR). In Mode 6, the reactor sub-criticality margin is ensured by the limit on the boron concentration of all filled portions of the RCS, the refueling canal, and the refueling cavity that have direct access to the reactor vessel. These TSs will be modified by this amendment to permit the addition of positive reactivity and changes to the RCS boron concentration as long as the change preserves the margin to core criticality as defined by the SDM and refueling boron concentration limit specifications. The limit specifications for the SDM and refueling boron concentration are given

in TSs 3.1.1, "Shutdown Margin (SDM)," and 3.9.1, "Boron Concentration," respectively, with the limit values specified in the COLR.

The NRC has previously approved the subject change on a plant-specific basis. These previous approvals include but are not limited to H.B. Robinson Unit 2 (Reference 6), Callaway Unit 1 (Reference 7), Wolf Creek Generating Station (Reference 8), Catawba Nuclear Station Units 1 and 2 (Reference 9), McGuire Nuclear Station Units 1 and 2 (Reference 10), and Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (Reference 11).

3.0 TECHNICAL EVALUATION

3.1 Staff Evaluation

The licensee requested a change to the TSs for Ginna to revise TS Required Actions that currently require suspending all operations involving any positive reactivity additions, and to revise TS LCO notes that preclude any reduction in boron concentration. The proposed changes would allow the introduction of reactivity as long as the TS required SDM or refueling boron concentration is properly maintained. The licensee stated that these necessary operations may involve additions to the RCS of cooler borated water or required makeup from borated sources that have lower boron concentration than the existing RCS boron concentration. The licensee indicated that these changes would be allowed if the overall effect on core reactivity still assures that the required SDM or the refueling boron concentration is maintained. The proposed changes are consistent with TSTF-286 except where noted below. The licensee provided plant-specific differences between the proposed changes and TSTF-286 as part of its application.

TSTF-286, Revision 2, revises the following in the STS: (1) various Required Actions that require suspension of operations involving positive reactivity additions, and (2) various TS notes precluding reduction in boron concentration. The revised TSs for Ginna will limit the introduction of positive reactivity into the RCS to that which would maintain the TS required SDM or refueling boron concentrations, as applicable. The applicable TS Bases have been revised accordingly.

The justification given in the TSTF is that the change provides the flexibility necessary to provide for continued safe reactor operations while also limiting any potential for excess positive reactivity addition to the core. The Required Actions and LCO Notes that preclude positive reactivity changes and/or reduction in boron concentration ensure that either no power increases will be experienced or that continued core criticality margins will be maintained. During conditions in which these Required Actions may be required, the following various activities for unit operation must be continued: RCS inventory must be maintained, and RCS temperature must be controlled. These activities involve addition to the RCS of cooler water and may involve inventory makeup from sources that are at boron concentrations less than the current RCS concentration, but limit the introduction of reactivity more positive than that required to meet the required SDM or boron concentration, as applicable. These activities do not need to be precluded in the TSs to ensure that, for the worst-case overall effect on the core, there would still be assurance that the required SDM is maintained.

The licensee employs two independent reactivity control systems. One uses the movable control and shutdown control rods, and the other uses the Chemical and Volume Control

System (CVCS) to adjust the soluble boron concentration in the RCS. In Modes 1 and 2, both systems are used to compensate for the reactivity effects from fuel and coolant temperature changes in the RCS during power operation from full load to no load conditions. In Modes 3, 4, and 5, the CVCS is used to compensate for reactivity effects from core temperature and reactor poisons, such as xenon. In Mode 6, the CVCS is used to maintain the boron concentration within the required limits.

In Modes 1 through 4, the minimum required SDM is assumed as an initial condition for the reload safety analyses to ensure that the SAFDLs will not be exceeded for normal operation and AOOs, assuming that the highest worth RCCA remains stuck out following a reactor scram. The main steam line break (MSLB) and boron dilution accidents are the most limiting events to establish the minimum SDM value for LCO 3.1.1 and the minimum boron concentration requirement of LCO 3.9.1, respectively. For MSLB accidents, if LCO 3.1.1 is not met, there is potential to exceed the departure from nucleate boiling ratio limit and the required actions of LCO 3.1.1 are necessary to restore compliance with the LCO. For the boron dilution accident, if LCO 3.1.1 or LCO 3.9.1 are not met, the minimum required time assumed for operator action to terminate dilution may no longer be sufficient, and the required actions of LCO 3.1.1 or LCO 3.9.1 are necessary to restore compliance with the LCO.

As stated in the Bases for LCO 3.1.1, a sufficient shutdown margin ensures that: (1) the reactor can be made subcritical from all operating conditions, transients, and design basis events; (2) the reactivity transients associated with postulated accident conditions are controllable within acceptable limits; and (3) the reactor will be maintained sufficiently subcritical to preclude inadvertent criticality in the shutdown condition. The Bases for LCO 3.9.1 on refueling boron concentration in the RCS, refueling canal and refueling cavity similarly indicate that the limitations on boron concentration during refueling ensure that the reactor will remain subcritical during Mode 6. Since the proposed changes will not alter the limits established in these specifications, the NRC staff concludes that the proposed changes will have no effect on the licensee's ability to shut down and maintain the reactor in a subcritical condition.

The changes specified in TSTF-286, Revision 2, ensure that, under the specified plant conditions for each operating mode, unplanned power increases or reductions in the margin to core criticality are precluded. The proposed revision to existing TS Notes and the addition of wording to the TS ACTIONS allow the small reactivity variations that result from the temperature or boron concentration fluctuations associated with normal RCS inventory management or temperature control. These normal activities are permitted to be performed while maintaining the minimum SDM requirement of LCO 3.1.1 and the minimum boron concentration requirement of LCO 3.9.1.

In the application, the licensee provided justification for changes that are consistent with TSTF-286, Revision 2. Where plant-specific design would dictate differences, the licensee provided plant-specific justification for any differences or exceptions, as discussed below. The proposed TS changes are applicable to Ginna.

(a) The proposed changes include adding notes to LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation," Required Actions F.1, H.1, and J.1.

The current Required Actions F.1 and H.1 both state the following: "Suspend operations involving positive reactivity additions." TSTF-286, Revision 2, adds equivalent notes that allow limited insertions of positive reactivity associated with routine plant operations. The notes state that "Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM."

The current Required Action J.1 states the following: "Suspend operations involving positive reactivity additions." TSTF-286, Revision 2, adds an equivalent note that allows limited insertions of positive reactivity associated with routine plant operations. The note states that "Plant temperature changes are allowed provided the temperature change is accounted for in the calculated SDM."

As previously stated, the intent of TSTF-286 is to ensure that under the specified plant conditions for each operating mode, unplanned power increases or reductions in the margin to core criticality are precluded. The proposed addition of TS Notes will allow small reactivity effects that result from temperature or boron concentration fluctuations associated with RCS inventory management or temperature control. These routine plant operations would be permitted to be performed while maintaining the minimum SDM requirement of LCO 3.1.1. SDM is assured by operation within rod insertion limits of LCO 3.1.4, "Rod Group Alignment Limits," 3.1.5, "Shutdown Bank Insertion Limit," and 3.1.6, "Control Bank Insertion Limits." The addition of the TS notes continue to provide the NRC staff the assurance that the assumptions of the most limiting accident safety analyses are maintained, while acknowledging that necessary activities may still be taken by adding cooler water to the RCS to lower the current temperature and makeup sources may be borated water at concentrations less than the current RCS boron concentration.

The proposed change is acceptable because the overall effect on core reactivity is being monitored and the required SDM is being maintained. Furthermore, the NRC staff finds the wording "temperature changes" refers to the fact that the moderator temperature coefficient must be considered both during cooldown and heatup operations.

(b) The proposed changes include changes to Notes for the following LCOs:

- LCO 3.4.5, "RCS Loops - MODE 1 ≤ 8.5% rated thermal power (RTP), 2, and 3," Note a
- LCO 3.4.6, "RCS Loops - MODE 4," Note 1.a
- LCO 3.4.7, "RCS Loops - MODE 5, Loops Filled," Note 1.a
- LCO 3.4.8, "RCS Loops - MODE 5, Loops Not Filled," Note 1.a

The LCO Notes would be changed to state that "No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1; and." These Notes currently state: "No operations are permitted that would cause reduction of the RCS boron concentration; and." These Notes are intended to preclude dilution of the RCS when no forced mixing (i.e., coolant circulation by Residual Heat Removal (RHR) pumps or reactor coolant pumps) is taking place. The proposed changes allow dilution of the RCS, but the source of boric acid is

required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1. These proposed changes are consistent with the changes in the approved TSTF-286 for the same LCO notes.

The applicability of STS LCO 3.4.5 is Mode 3 while the applicability of the Ginna LCO 3.4.5 is Modes 1 ≤ 8.5% RTP, 2, and 3. Ginna's LCO 3.4.5 Note states, "Both reactor coolant pumps may be de-energized in Mode 3 for ≤ 1 hour per 8 hour period provided: ...." Since Ginna's note only applies in Mode 3 it is consistent with Note a in STS LCO 3.4.5 and TSTF-286.

The licensee provided the same technical basis for these changes as that provided by the NRC staff for the approved TSTF-286. These changes are consistent with the wording of the approved TSTF-286, are applicable to Ginna, and will ensure that adequate SDM will be maintained. Therefore, the NRC staff finds the proposed changes acceptable.

(c) The proposed changes include changes to Required Actions for the following LCOs:

- LCO 3.4.6, "RCS Loops - MODE 4," Required Action C.1
- LCO 3.4.7, "RCS Loops - MODE 5, Loops Filled," Required Action B.1
- LCO 3.4.8, "RCS Loops - MODE 5, Loops Not Filled," Required Action B.1

The proposed changes would revise the Required Actions to state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet SDM of LCO 3.1.1." The current Required Actions states: "Suspend all operations involving a reduction of RCS boron concentration." These Required Actions are intended to preclude dilution of the RCS when no forced mixing is taking place. The proposed changes allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1. These proposed changes are identical to the changes in the approved TSTF-286 for the same Required Actions.

The licensee provided the same technical basis for these changes as that provided by the NRC staff for the approved TSTF-286. These changes are identical to the wording of the approved TSTF-286, are applicable to Ginna, and will ensure that adequate SDM will be maintained. Therefore, the NRC staff finds the proposed changes acceptable.

(d) The licensee proposed the following change to Required Action C.2 for LCO 3.4.5, "RCS Loops - MODE 1 ≤ 8.5% RTP, 2, and 3."

The proposed change would revise the Required Action to state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet SDM of LCO 3.1.1." The current Required Action states: "Suspend all operations involving a reduction of RCS boron concentration." This Required Action is intended to preclude dilution of the RCS when no forced mixing is taking place. The proposed change allows dilution of the RCS, but

the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1.

The applicability of STS LCO 3.4.5 is Mode 3 while the applicability of the Ginna LCO 3.4.5 is Modes 1 ≤ 8.5% RTP, 2, and 3. Ginna's LCO 3.4.5 Required Actions for Condition C require immediately (1) de-energizing all control rod drive mechanisms (CRDMs), (2) suspending all operations involving a reduction of RCS boron concentration, and (3) initiating action to restore operability and operation of one RCS loop. When Ginna de-energizes all CRDMs, k_{eff} is reduced to < 0.99 which changes reactor mode from Mode 1 to Mode 3. Since Required Action C.1 places the reactor in Mode 3, Ginna's proposed change is consistent with the Mode 3 applicability of STS LCO 3.4.5.

This proposed change is consistent with the changes in TSTF-286 for the same LCOs. The licensee provided the same technical basis for this change as that provided by the NRC staff for the approved TSTF-286. This change is consistent with the wording of the approved TSTF-286, is applicable to Ginna, and ensures that adequate SDM will be maintained. Therefore, the NRC staff finds the proposed change acceptable.

(e) The proposed changes include changes to Required Actions for the following TSs:

- LCO 3.8.2, "AC Sources - MODES 5 and 6," Required Actions A.2.3 and B.3
- LCO 3.8.5, "DC Sources - MODES 5 and 6," Required Action A.2.3
- LCO 3.8.8, "AC Instrument Bus Sources - MODES 5 and 6," Required Action A.2.3
- LCO 3.8.10, "Distribution Systems - MODES 5 and 6," Required Action A.2.3

The proposed Required Actions would state the following: "Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration." These Required Actions currently state: "Initiate action to suspend operations involving positive reactivity additions." These Required Actions are intended to initiate suspension of operations involving positive reactivity additions based on the loss of required electrical sources and distribution equipment. The proposed changes allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1 or the refueling boron concentration of LCO 3.9.1. The proposed changes will also allow temperature changes that could increase reactivity provided the reactivity insertions do not result in a loss of required SDM. These proposed changes are identical to the changes in TSTF-286, as modified by the NRC staff, for the same Required Actions.

The licensee provided the same technical basis for these changes as that provided by the NRC staff for the approved TSTF-286. These changes are identical to the wording of the approved TSTF-286, are applicable to Ginna, and will ensure that adequate SDM is maintained. Therefore, the NRC staff finds the proposed changes acceptable.

(f) The licensee proposed the following change to Required Action A.2 for LCO 3.9.2, "Nuclear Instrumentation."

The proposed Required Action states the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1." The Required Action currently states: "Suspend positive reactivity additions." This Required Action is intended to initiate suspension of operations during refueling operations involving positive reactivity additions when there is a loss of one source range monitor. The proposed change allows dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. The proposed change is identical to the change in the approved TSTF-286 for this Required Action.

The licensee provided the same technical basis for this change as that provided by the NRC staff for the approved TSTF-286. The change is identical to the wording of the approved TSTF-286, is applicable to Ginna, and ensures that adequate SDM will be maintained. Therefore, the NRC staff finds the proposed change acceptable.

(g) The licensee proposed the following change to Required Action C.2 for LCO 3.9.2, "Nuclear Instrumentation."

Ginna's Updated Final Safety Analysis Report section 15.4.4.3.2 states, "The event analyses require the operator to terminate the transients by isolating the source of flow causing the boron dilution. The minimum time intervals that must be available to the operator to identify the cause and terminate the dilution before a loss of shutdown margin occurs are calculated from the time the dilution begins. The calculated time intervals must be greater than or equal to 30 min for refueling events and greater than or equal to 15 min for all other plant operating modes. The operator is then expected to re-establish boron concentrations and shutdown margins required by the Technical Specifications."

The licensee's technical evaluation states, "The change to LCO 3.9.2.C.2 is not addressed in TSTF-286 because Ginna's TS differs slightly from Standard TS, but is consistent with the philosophy and methodology of the TSTF changes."

The proposed Required Action states the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1." The Required Action currently states: "Suspend positive reactivity additions." This Required Action is intended to initiate suspension of operations during refueling operations involving positive reactivity additions when there is a loss of audible count rate. With no audible count rate available, prompt and definite indication of a boron dilution event, consistent with the assumptions of the safety analysis, is lost. In this situation, the boron dilution event may not be detected quickly enough to assure sufficient time is available for operators to identify the cause and stop the dilution prior to the loss of shutdown margin. Therefore, action must be taken to prevent an inadvertent boron dilution event from occurring. An inadvertent boron dilution event is prevented by suspending any positive reactivity additions as currently required by Required Action C.2 for LCO 3.9.2.

Following discussions between the NRC staff and the licensee on this item, by letter dated May 3, 2011, the licensee withdrew their proposed revision to Required Action C.2 for LCO 3.9.2.

(h) The licensee proposed the following change to the note in LCO 3.9.4, "Residual Heat Removal (RHR) and Coolant Circulation - Water Level ≥ 23 Ft":

The proposed LCO 3.9.4 Note would state the following: "The required RHR loop may be removed from operation for ≤ 1 hour per 8 hour period, provided no operations are permitted that would cause introduction of coolant into the Reactor Coolant System (RCS) with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1." The LCO 3.9.4 Note currently states that: "The required RHR loop may be removed from operation for ≤ 1 hour per 8 hour period, provided no operations are permitted that would cause reduction of the Reactor Coolant System (RCS) boron concentration." The allowance of removing the required RHR loop for ≤ 1 hour per 8-hour period is not being changed by the proposed amendment. This note is intended to preclude dilution of the RCS when no forced mixing is taking place during refueling. The proposed change allows dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. This proposed change is identical to the change in the approved TSTF-286 for the same LCO Note.

The licensee provided the same technical basis for this change as that provided by the NRC staff for the approved TSTF-286. This proposed change is identical to the wording of the approved TSTF-286, is applicable to Ginna, and will ensure that adequate SDM is maintained. Therefore, the NRC staff finds that the proposed change acceptable.

(i) The proposed changes include changes to Required Actions for the following TSs:

- LCO 3.9.4, "Residual Heat Removal (RHR) and Coolant Circulation - Water Level ≥ 23 Ft," Required Action A.1
- LCO 3.9.5, "Residual Heat Removal (RHR) and Coolant Circulation - Water Level < 23 Ft," Required Action B.1

The proposed Required Actions would state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1." These Required Actions currently state: "Suspend operations involving a reduction in reactor coolant system boron concentration." These Required Actions are intended to preclude dilution of the RCS when no forced mixing is taking place during refueling. The proposed changes allow dilution of the RCS, but the source of the boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. These proposed changes are identical to the changes in the approved TSTF-286 for the same Required Actions.

The licensee provided the same technical basis for these changes as that provided by the NRC staff for the approved TSTF-286. These changes are identical to the wording of the approved TSTF-286, are applicable to Ginna, and will ensure that adequate SDM is maintained. Therefore, the NRC staff finds the proposed changes acceptable.

The Ginna plant-specific adoption of TSTF-286, as modified by the NRC staff, provides the NRC staff the assurance that the initial assumptions of the most limiting accident safety analyses are still maintained, while acknowledging that necessary routine plant operations may still be taken by adding cooler water to the RCS to lower the current temperature; and makeup sources may be borated water at boron concentrations less than the current RCS boron concentration. These routine plant operations are part of plant procedures, and this would assure that the overall effect on core reactivity is properly monitored, and the TS required SDM or the required refueling boron concentration is maintained. Therefore, the NRC staff finds the changes acceptable.

3.2 Conclusion of the NRC Staff Evaluation

The NRC staff has reviewed the licensee's application with the supporting documentation. Based on its review, the NRC staff concludes that the proposed changes to the TSs are acceptable because proposed notes and Required Actions prevent the introduction of coolant into the RCS with boron concentration less than that required to meet the required SDM or refueling boron concentration. In addition, these changes are consistent with the approved TSTF-286 which is applicable to Ginna and takes into account plant-specific design differences discussed above. The technical basis for the approved TSTF-286 is applicable to Ginna, and continues to ensure that the required minimum SDM of LCO 3.1.1 and boron concentration of LCO 3.9.1 to preclude inadvertent criticality are met. Since the licensee's proposed amendment will still require the minimum SDM and boron concentration to be maintained, the NRC staff concludes that the proposed changes below are acceptable.

- Adding notes to LCO 3.3.1 Required Actions F.1, H.1, and J.1
- Revising LCO 3.4.5 Note a
- Revising LCO 3.4.6 Note 1.a
- Revising LCO 3.4.7 Note 1.a
- Revising LCO 3.4.8 Note 1.a
- Revising LCO 3.4.5 Required Action C.2
- Revising LCO 3.4.6 Required Action C.1
- Revising LCO 3.4.7 Required Action B.1
- Revising LCO 3.4.8 Required Action B.1
- Revising LCO 3.8.2 Required Actions A.2.3 and B.3
- Revising LCO 3.8.5 Required Action A.2.3
- Revising LCO 3.8.8 Required Action A.2.3
- Revising LCO 3.8.10 Required Action A.2.3
- Revising LCO 3.9.2 Required Action A.2
- Revising LCO 3.9.4 Note
- Revising LCO 3.9.4 Required Action A.1
- Revising LCO 3.9.5 Required Action B.1

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. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes Surveillance Requirements. 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 (76 FR 12765). 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) 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.

7.0 REFERENCES

1. Larson, Eric A., R.E. Ginna Nuclear Power Plant, LLC, to USNRC, "License Amendment Request: Improvement to the Definition of Operations Involving Positive Reactivity Changes (TSTF-286)," July 23, 2009 (ADAMS Accession No. ML092090538).

2. Carlin, John T., R.E. Ginna Nuclear Power Plant, LLC, to USNRC, "Update to License Amendment Request: Improvement to the Definition of Operations Involving Positive Reactivity Changes (TSTF-286)," May 3, 2011 (ADAMS Accession No. ML11129A013)

3. Memorandum from Donohew, Jack N. USNRC to Gramm, Robert A. USNRC, "Comanche Peak Steam Electric Station, Units 1 and 2 - Licensee's Agreement to Revised Wording in Proposed License Amendment Involving Positive Reactivity Additions (TAC Nos. MB6890 and MB6891)," dated May 16, 2003. (ADAMS Accession No. ML031360748)

4. Johnson, Allen R., USNRC, to Mecredy, Dr. Robert C., Rochester Gas and Electric Corporation, "Issuance of Amendment No. 61 to Facility Operating License No. DPR-18, R.E. Ginna Nuclear Power Plant (TAC Nos. M89516, M89559, M92320, M92963, M92964, M92965, M92966, M92967, M92968, M92969, M93579, M93071, M93708, AND M93928)," February 13, 1996. (ADAMS Accession No. ML010640012)

5. Beckner, W. D., USNRC to J. Davis, Nuclear Energy Institute, July 6, 2000. (ADAMS Accession No. ML003730788)

6. Subbaratnam, Ram USNRC to Moyer, J. W. Carolina Power & Light Company, "H. B. Robinson Steam Electric Plant Unit 2 -Issuance of Amendment -Technical Specification Change on Operations Involving Positive Reactivity ADDITIONS (TAC No. MA9729)," dated March 14, 2001. (ADAMS Accession No. ML010810282)

7. Wang, Alan USNRC to Randolph, Garry L. Union Electric Company, "Callaway Plant, Unit 1 - Issuance of Amendment Re: Suspension of Positive Reactivity Additions (TAC No. MB3642)," dated May 1, 2002. (ADAMS Accession No. ML020220051)

8. Donohew, Jack USNRC to Maynard, Otto L. Wolf Creek Nuclear Operating Corporation, "Wolf Creek Generating Station - Issuance of Amendment Re: Limited Removal of Suspension of Positive Reactivity Additions (TAC No. MB4236)," dated July 29, 2002. (ADAMS Accession No. ML021290254)

9. Martin, Robert E. USNRC to Jamil, D. M. Duke Energy Corporation, "Catawba Nuclear Station, Units 1 and 2 Re: Issuance of Amendments (TAC Nos. MB6782 and MB6783)," dated July 29, 2003. (ADAMS Accession No. ML032110122)

10. Martin, Robert E. USNRC to Peterson, G. R. Duke Energy Corporation, "McGuire Nuclear Station, Units 1 and 2 Re: Issuance of Amendments (TAC Nos. MB6784 and MB6785)," dated July 29, 2003. (ADAMS Accession No. ML032110073)

11. Vissing, Guy S. USNRC to Vanderheyden, George Calvert Cliffs Nuclear Power Plant, Inc., "Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 Amendment Re: Technical Specification Changes to Modify Requirements Related to Positive Reactivity Additions (TAC Nos. MB8478 and MB8479)," dated May 6, 2004. (ADAMS Accession No. ML040760287)

Principal Contributor: K. Bucholtz, NRR

Date: June 8, 2011

June 8, 2011

Mr. John T. Carlin
Vice President R. E. Ginna Nuclear Power Plant
R.E. Ginna Nuclear Power Plant, LLC
1503 Lake Road
Ontario, NY 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - AMENDMENT RE: TECHNICAL SPECIFICATION TASK FORCE (TSTF)-286, "OPERATIONS INVOLVING POSITIVE REACTIVITY ADDITIONS" (TAC NO. ME5444)

Dear Mr. Carlin:

The Commission has issued the enclosed Amendment No. 112 to Renewed Facility Operating License No. DPR-18 for the R.E. Ginna Nuclear Power Plant. This amendment is in response to your application dated July 23, 2009, as supplemented by letter dated May 3, 2011.

The amendment revises Technical Specification actions requiring suspension of operations involving positive reactivity addition and revises various notes precluding reduction in boron concentration. The amendment is consistent with Technical Specification Task Force (TSTF)-286, Revision 2, Define "Operations Involving Positive Reactivity Additions."

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,
/ra/
Douglas V. Pickett, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures:
1. Amendment No. 112 to Renewed License No. DPR-18
2. Safety Evaluation

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