



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

October 6, 2010

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: PROPOSED
CHANGES TO THE EMERGENCY PLAN (TAC NO. ME2916)

Dear Mr. Carlin:

The Commission has issued the enclosed Amendment No. 111 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 November 30, 2009, as supplemented by letter dated May 14, 2010. R.E. Ginna Nuclear Power Plant, LLC requested Nuclear Regulatory Commission (NRC) approval for proposed changes to the R.E. Ginna Nuclear Power Plant Emergency Plan.

The amendment provides authorization to upgrade selected Emergency Action Levels based on Nuclear Energy Institute (NEI) 99-01, "Methodology for Development of Emergency Action Levels," Revision 5, dated February 2008 using the guidance of NRC Regulatory Issue Summary 2003-18, Supplement 2, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels."

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,

A handwritten signature in black ink, reading "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. 111 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. 111
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 November 30, 2009, as supplemented by letter dated May 14, 2010, 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 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. 111, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. Further, Renewed Facility Operating License No. DPR-18 is hereby amended to authorize changes to the R.E. Ginna Nuclear Power Plant Emergency Plan as set forth in the license amendment application dated November 30, 2009, as supplemented by letter dated May 14, 2010, and evaluated in the safety evaluation dated October 6, 2010. The amendment provides authorization to upgrade selected Emergency Action Levels based on Nuclear Energy Institute (NEI) 99-01, "Methodology for Development of Emergency Action Levels," Revision 5, dated February 2008 using the guidance of NRC Regulatory Issue Summary 2003-18, Supplement 2, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels."
4. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to Page 3 of Renewed Facility
Operating License No. DPR-18

Date of Issuance: October 6, 2010

ATTACHMENT TO LICENSE AMENDMENT NO. 111

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

3

Insert

3

- (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. 111, 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



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 111 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 application dated November 30, 2010 (Reference 1, Agencywide Documents Access and Management System (ADAMS) Accession No. ML093370215), as supplemented by letter dated May 14, 2010 (Reference 2, ADAMS Accession No. ML101400133), R.E. Ginna Nuclear Power Plant, LLC, the licensee, requested Nuclear Regulatory Commission (NRC) approval for proposed changes to the R.E. Ginna Nuclear Power Plant (Ginna) Emergency Plan.

The licensee requested authorization to upgrade selected Emergency Action Levels (EALs) based on Nuclear Energy Institute (NEI) 99-01, "Methodology for Development of Emergency Action Levels," Revision 5, dated February 2008 (Reference 3) using the guidance of NRC Regulatory Issue Summary (RIS) 2003-18, Supplement 2, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels" (Reference 4). The licensee currently uses an EAL scheme based on NUMARC/NESP-007, "Methodology for Development of Emergency Action Levels" (Reference 5).

Specifically, EALs 7.3.1 (Unusual Event), 7.3.3 (Alert), and 7.3.4 (Site Area Emergency) were submitted by the licensee for prior NRC approval pursuant to Section 50.54(q) of Title 10 of the *Code of Federal Regulations* (10 CFR) as the licensee determined that these changes resulted in a decrease in the effectiveness of their Emergency Plan. These EALs are related to a loss of annunciation/indication event.

The supplemental letter dated May 14, 2010, 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* on February 9, 2010 (75 FR 6411).

2.0 REGULATORY EVALUATION

2.1 Regulations

Section 47 of Part 50, "Domestic Licensing of Production and Utilization Facilities," to 10 CFR sets forth emergency plan requirements for nuclear power plant facilities. Paragraph 50.47(a)(1)(i) states in part "... no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency."

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. One of these standards (10 CFR 50.47(b)(4)) stipulates that emergency plans include a standard emergency classification and action level scheme.

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

The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. These initial emergency action levels shall be discussed and agreed on by the applicant or licensee and state and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis. A revision to an emergency action level must be approved by the NRC before implementation if:

- (1) The licensee is changing from one emergency action level scheme to another emergency action level scheme (e.g., a change from an emergency action level scheme based on NUREG-0654 to a scheme based upon NUMARC/NESP-007 or NEI-99-01);
- (2) The licensee is proposing an alternate method for complying with the regulations; or,
- (3) The emergency action level revision decreases the effectiveness of the emergency plan.

2.2 Guidance

Regulatory Guide 1.101, Revisions 3 and 4, "Emergency Planning and Preparedness for Nuclear Power Reactors," (Reference 6 and 7, respectively) endorsed NUMARC/NESP-007 and NEI 99-01, Revision 4, EAL guidance respectively, as acceptable alternatives to the guidance provided in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980 (Reference 8) for development of EALs to comply with 10 CFR 50.47 and Appendix E to 10 CFR Part 50.

The NRC staff, in a letter dated February 22, 2008, from Christopher Miller to Alan Nelson (Reference 9), concluded that the guidance contained in NEI 99-01, Revision 5, is an acceptable method to develop an EAL scheme that meets the requirements in Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4).

RIS 2003-18, with Supplements 1 and 2, provides guidance for developing or changing a standard emergency classification and action level scheme. In addition, this RIS provides recommendations to assist licensees, consistent with Section IV.B of Appendix E to Part 50, in determining whether to seek prior NRC approval of deviations from the guidance.

3.0 TECHNICAL EVALUATION

In its application and supplemental letter, the licensee submitted the proposed EALs for Ginna, their technical basis, and their justification for the proposed changes. The NRC staff has reviewed the technical basis for the proposed EALs, the differences or deviations from NEI 99-01, and the licensee's justification.

The following NEI 99-01 guidance was considered:

- Consistency (i.e., the EALs would lead to similar decisions under similar circumstances at different plants)
- Human engineering and user friendliness
- Potential for classification upgrade only when there is an increasing threat to public health and safety
- Ease of upgrading and downgrading
- Thoroughness in addressing and disposing of the issues of completeness and accuracy raised regarding Appendix 1 to NUREG-0654
- Technical completeness for each classification level
- Logical progression in classification for multiple events
- Objective, observable values

The present EAL scheme was approved by the NRC in a Safety Evaluation (SE) dated February 15, 1995. The licensee stated that the changes to the EALs are based upon improvements made to the Ginna Main Control Room indication and annunciation systems made after issuance of the initial SE, and upon lessons learned from the two loss of annunciation events, one in 2007 and one in 2009. The licensee also stated that the level of conservatism led it to re-evaluate the loss of annunciation EALs to ensure they meet the intent of the NRC approved guidance for EAL development. The licensee determined that its present EALs for loss of annunciation are more conservative than what is expected from NEI 99-01. While the proposed changes are based upon the NRC approved development guidance, these changes were determined by the licensee to be a decrease in the effectiveness of its approved EAL scheme, and it therefore submitted the EALs for NRC review and approval prior to implementation.

EALs 7.3.1, 7.3.3, and 7.3.4 were originally developed in 1994 using the development guidance contained in NUMARC/NESP-007 (Reference 5). Since the original NRC approval for the Ginna EALs was given via the SE dated February 15, 1995, Ginna has improved the available indication and annunciation systems in its Main Control Room thus making its EALs more conservative than necessary under existing NRC-endorsed guidance (Reference 3).

Cognizant State officials were informed of the proposed changes by the licensee. On May 14, 2010, the NRC staff held a conference call with officials from the New York Office of Emergency Management and the New York State Energy and Research Development Authority to discuss the proposed Ginna EAL changes.

Ginna has proposed EAL language that is consistent with the staff's expectations for these EALs, and therefore, the staff approves the proposed changes. However, the staff recommends that Ginna revise its entire EAL scheme to the latest approved EALs. Ginna responded that it has commenced a project to upgrade its EAL scheme (Reference 2).

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

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact was published in the *Federal Register* on October 6, 2010 (75 FR 61779). Accordingly, based upon the environmental assessment, the Commission has determined that issuance of this amendment will not have a significant effect on the quality of the human environment.

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.

Principal Contributor: D. Johnson, NSIR

Date: October 6, 2010

7.0 REFERENCES

1. Letter from Constellation Energy Nuclear Group to the NRC, "License Amendment Request: Proposed Changes to the emergency Plan," dated November 30, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093370215).
2. Letter from Constellation Energy Nuclear Group to the NRC, "Reply to Request for Additional Information RE: Proposed Changes to the Emergency Plan," dated May 14, 2010 (ADAMS Accession No. ML101400133).
3. NEI 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008 (ADAMS Accession No. ML080450149).
4. Regulatory Issue Summary 2003-18, with Supplements 1 and 2, "Use of NEI 99-01, Methodology for Development of Emergency Action Levels," January 2003 (ADAMS Accession Nos. ML032580518, ML041550395, and ML051450482).
5. Nuclear Utilities Management Council (NUMARC) document, entitled NESP-007, "Methodology for Development of Emergency Action Levels," (Revision 2, January 1992). ADAMS Accession No. ML041120174.
6. Regulatory Guide 1.101, Revision 3, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated August 1992 (ADAMS Accession No. ML003740302).
7. Regulatory Guide 1.101, Revision 4, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated July 2003 (ADAMS Accession No. ML032020276).
8. NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980 (ADAMS Accession No. ML040420012).
9. Letter from Christopher Miller, NRC to Alan Nelson, NEI, "US Nuclear Regulatory Commission Review and Endorsement of NEI 99-01, Revision 5, Dated February 2008," dated February 22, 2008 (ADAMS Accession No. ML080430535).

October 6, 2010

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

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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. 111 to Renewed License No. DPR-18
2. Safety Evaluation

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