May 18, 2005

Mrs. Mary G. Korsnick
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 - CORRECTION TO AMENDMENT NO. 87 RE: MODIFICATION OF THE CONTROL ROOM EMERGENCY AIR TREATMENT SYSTEM (TAC NO. MB9123)

Dear Mrs. Korsnick:

On February 25, 2005, the Commission issued Amendment No. 87 to Renewed Facility Operating License No. DPR-18 for the R.E. Ginna Nuclear Power Plant. This amendment was in response to your application dated May 21, 2003, as supplemented December 1, 2003 (two letters), February 16, March 1 and 8, April 22, May 21, July 8 and 14, August 6 and 18, September 10 and 30, October 14 and 18, December 3 and 6, 2004, and January 27, 2005.

The amendment revised Technical Specification (TS) requirements to reflect design modifications to the Control Room Emergency Air Treatment System, and elimination of the requirements for the Containment Post Accident Charcoal Filters. The list of affected TS pages attached to the amendment included only those pages which were revised as a result of the amendment. Subsequently, you notified us of your preference to issue all of the pages in a TS section, if any portion of that section is affected. Therefore, we have enclosed the TS pages for the subject amendment in their entirety as Enclosure 1. In addition, you notified us of some errors in the safety evaluation (SE) issued with Amendment No. 87. These corrections are discussed in Enclosure 2. The Nuclear Regulatory staff has evaluated these corrections and has determined that they do not impact any of the conclusions discussed in the SE.

If there are any questions regarding this matter, please contact me at (301) 415-1322.

Sincerely,

/RA/

Donna Skay, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures: As stated

cc w/encls: See next page

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cc w/encls: See next page

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ATTACHMENT TO LICENSE AMENDMENT NO. 87

RENEWED FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

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
1.1-1 through 1.1-6	1.1-1 through 1.1-6
3.3.6-1 through 3.3.6-3	3.3.6-1 through 3.3.6-3
3.4.16-1 through 3.4.16-3	3.4.16-1 through 3.4.16-2
3.6.6-1 through 3.6.6-4	3.6.6-1 through 3.6.6-3
3.7.9-1 through 3.7.9-3	3.7.9-1 through 3.7.9-2
5.5-1 through 5.5-10	5.5-1 through 5.5-10

CORRECTIONS TO SAFETY EVALUATION RELATED TO

LICENSE AMENDMENT NO. 87

RENEWED FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

1. Section 1.0, Introduction

   Correction: The listing of supplements to the application does not include the supplement dated September 30, 2003 (Accession No. ML032790206).

   In addition, two supplements were submitted on July 8, 2003. The accession number of the second supplement (ML041970383) was not included.

2. Section 1.3, Control Room Emergency Air Treatment System (CREATS)

   Current Wording: The safety evaluation (SE) states that the CREATS is designed to satisfy GDC-19 to provide a protective environment from which the operators can control the plant for 30 days after a design-basis accident without exceeding dose limits of 30-rem thyroid or 5-rem whole body.

   Correction: The SE should state that the CREATS is designed to satisfy GDC-19 to provide a protected environment for the duration of the accident without exceeding a dose limit of 5-rem TEDE.

   Discussion: GDC-19 states that holders of operating licenses using an alternative source term (as Ginna has requested by the current amendment), the limit for radiation exposure is 5-rem TEDE. In addition, the replacement of the duration of 30-day portion with "duration of the accident" is consistent with GDC-19. This change clarifies the current design basis for the CREATS.

3. Section 3.1.3, Exclusion Area Boundary and Low Population Zone Atmospheric Dispersion Factors

   Current Wording: The SE states that the licensee modeled the first minute of the spent fuel pool tornado missile accident using the CONHAB module of the HABIT computer code.

   Correction: The SE should state that the licensee modeled the first minute of the spent fuel pool tornado missile accident using the ARCON96 computer code (NUREG/CR-6331, Rev. 1, “Atmospheric Relative Concentrations in Building Wakes”).

   Discussion: During a teleconference with the Nuclear Regulatory Commission (NRC) staff on May 20, 2004, the licensee discussed the assumptions that were used in this analysis. The NRC agreed that, because the release would occur in extremely

unsettled atmospheric conditions, it is reasonable to assume a tornado atmospheric dispersion factor based on recorded meteorological conditions using the maximum recorded wind speed. The NRC added that this could be extracted from ARCON96 using a single hour of recorded data. This information is documented in the licensee's July 14, 2004, supplement.

4. Section 3.2.1.1, Containment Leakage

Current wording: The SE states that the Containment Recirculation Cooling and Filtration System (CRCFS) consists of four units, each including , among others, charcoal and high-efficiency particulate air filters.

Correction: The description should state that the CRCFS consists of four units, each including high-efficiency particulate air filters, with two units containing charcoal filters.

5. Section 3.2.1.2, Post-loss-of-coolant-accident (LOCA) Leakage from Engineered Safety Features Outside Containment

Current wording: The SE states that, at 52 minutes after the start of the event, safety injection and Containment Spray System (CSS) start to draw water from the containment sump.

Correction: The SE should state that safety injection and CSS start to draw water from the containment sump at 60 minutes after the start of the event.

Discussion: In the July 14, 2004, supplement, the licensee stated that containment spray is stopped at 52 minutes into the event and, at 1 hour, sump recirculation is started and continues for the duration of the calculation.

6. Section 3.2.1.2, Post-LOCA Leakage from Engineered Safety Features Outside Containment

Current wording: The SE states that the chemical form of radioiodine in the sump water at the time of recirculation would be 95% aerosol as cesium iodide, 4.85% elemental, and 0.15% organic.

Correction: The SE should state that the chemical form of radioiodine in the sump water, at the time of recirculation, is 97% elemental iodine and 3% organic.

Discussion: The SE incorrectly lists the values which apply to the iodine composition in the containment atmosphere. The correct values are those which apply to the sump water. Because the containment sump pH is maintained higher than seven, the radioiodine in the sump solution, is in the nonvolatile iodide or iodate form. The more conservative iodine chemical form assumption of Regulatory Guide 1.183 (97% elemental iodine and 3% organic) was used.

7. Section 3.2.1.2, Post-LOCA Leakage from Engineered Safety Features Outside Containment Current wording: The SE states that the charcoal filters in the auxiliary building ventilation system are tested in accordance with Technical Specification (TS) 5.5.10, "Ventilation Filter Testing Program," for iodine removal efficiencies of 90% and 70% for elemental iodine and organic iodine, respectively.

   Correction: This statement should be deleted.

   Discussion: The auxiliary building charcoal filters are not required to be tested in accordance with TS 5.5.10.

8. Section 3.2.1.2, Post-LOCA Leakage from Engineered Safety Features Outside Containment

   Current wording: The SE states that the licensee did not take credit for the removal of iodine through the auxiliary building ventilation system (ABVS) filters because the high energy particulate air (HEPA) and charcoal filter units are single train.

   Correction: The SE should state that the licensee did not take credit for removal of iodine through the ABVS filter because the loss of offsite power assumed in the LOCA analysis results in a loss of power to the ventilation fans.

9. Section 3.2.4, Steam Generator Tube Rupture

   Current wording: The SE states that primary-to-secondary leakage is assumed to be 150 gpd into the bulk water of the ruptured steam generator and 300 gpd total into the bulk water of the unaffected steam generator.

   Correction: The SE should state that total primary-to-secondary leakage into the bulk water of the unaffected steam generator is 150 gpd.

   Discussion: The value of 150 gpd is consistent with the value in Table 8.1 of the licensee's May 21, 2003, application. In addition, the assumed value of 150 gpd is greater than the current TS limit of 144 gpd allowed leakage and is, therefore, acceptable.

10. Section 3.2.5, Primary Coolant Pump Locked Rotor Accident

    Current Wording: The SE states that a radial peaking factor of 1.65 was applied in the calculation of offsite and control room doses for the locked rotor accident.

    Correction: The SE should state that a radial peaking factor of 1.0 was applied.

    Discussion: Verification that a peaking factor of 1.0 was used can be found in Design Analysis DA-NS-2002-054, Locked Rotor Offsite and Control Room Doses, Rev. 1, included by Reference 21 in the licensee's July 14, 2004, supplement.

11. Section 3.2.6, Rod Ejection Accident

Current Wording: The SE states that localized heating is assumed to cause 0.375% of the fuel to melt, releasing 100% of the noble gases and 25% of the radiations contained in the melted fuel to the containment.

Correction: The SE should state that localized heating is assumed to cause 0.25% of the fuel to melt.

Discussion: In response to an NRC request for additional information (RAI), the licensee calculated the exclusion area boundary, low population zone, and control room doses using the assumption of 0.25% melt fraction. This is documented on page 2 of the December 3, 2004, response to the RAI.

12. Section 3.8, Appendix R Analysis

Current Wording: The SE states that manual fire protection for the relay room is provided via hose reels from outside the relay room.

Correction: The SE should state that manual fire protection for the relay room annex is provided via hose reels from outside the relay room annex.

Discussion: The paragraph that contains this sentence describes the fire detection and protection systems in the relay room annex. The omission of the word “annex” in this sentence was an administrative error.

13. Section 3.9.2, External Sources of Smoke and Fire

Current Wording: The SE states that the relay room annex, located below the control room, is protected by a both a halon and a manually actuated water suppression system.

Correction: This sentence of the SE describes the relay room, not the relay room annex.

Discussion: The inclusion of the word “annex” was an editorial error.

14. Section 3.10, Control Room Habitability

Current Wording: The SE states that during normal operation, fresh air is admitted to the control room air ventilation system through an intake louver located on the outside wall of the turbine building.

Correction: The SE should state that fresh air is admitted to the control room air ventilation system through an intake louver located on the roof of the control building.

Discussion: The corrected description is consistent with the drawings of the control building air intake (Figure 2.1.A and 2.1.B) in the May 21, 2003, application.

15. Table 4, Parameters and Assumptions Used in Radiological Consequence Calculations for Loss-of -Coolant-Accident

Current Wording: Table 4 lists values for containment mixing rates of 4.5 E+4 ft^3/hr.

Correction: The value for containment mixing rates should be 48,000cfm.

Discussion: The assumed mixing rate of 48,000 cfm is stated on page 28 of Design Analysis DA-NS-2001-087, Large Break LOCA Offsite and Control Room Doses, Rev. 2, included by Reference 17 in the July 14, 2004, supplement.

16. Table 4, Parameters and Assumptions used in Radiological Consequence Calculations for Loss-of-Coolant Accident

Current Wording: Table 4 lists a value of 2.647E+4 ft^3 for containment sump volume.

Correction: The correct volume for the containment sump is 264,700 gallons.

Discussion: The value of 264,700 gallons is provided on page 43 of Design Analysis DA-NS-2001-087, Large Break LOCA Offsite and Control Room Doses, Rev. 2, included by Reference 17 in the July 14, 2004, supplement.

17. Table 7, Parameters and Assumptions Used in Radiological Consequence Calculations for Steam Generator Tube Rupture Accident

Current Wording: Table 7 lists a value of 5.817E+7 grams for the liquid mass of each steam generator.

Correction: The correct value for steam generator mass is 3.72E+7.

Discussion: The value of 3.72E+7 is provided on page 56 of the May 21, 2003, application.

18. Table 8, Parameters and Assumptions Used in Radiological Consequence Calculations for Locked Rotor Accident

Current Wording: Table 8 lists two different values for the iodine species fraction, one for containment and one for the steam generators.

Correction: The column of values for containment should be deleted.

Discussion: The release pathway for the locked rotor accident is through the steam generators, so the containment iodine numbers are not applicable.

19. Table 9, Parameters and Assumptions Used in Radiological Consequence Calculations for Control Rod Ejection Accident

Current Values:	Radial Peaking Factor	1.65
	Fraction of rods that exceed departure from nucleate boiling (DNB)	0.15
	Fraction of rods in core that exceed DNB	0.00375
	Primary to secondary leakage per SG, gpd.	1.0
Correct Values:	Radial Peaking Factor	1.75
	Failed fuel, % of core	0.10
	Melt fraction	0.0025
	Primary to secondary leakage per SG, gpd	500

Discussion: Table 10.1 of the licensee's July 14, 2004, letter lists the parameters used in the Rod Ejection Accident. This table lists a 1.75 peaking factor and 10% failed fuel.

In response to an NRC RAI, the licensee calculated the exclusion area boundary, low population zone, and control room doses using the assumption of 0.25% melt fraction. This is documented on page 2 of the December 3, 2004, response to RAI.

Primary to secondary leakage of 500 gpd per steam generator is consistent with the value on page 18 of the SE. As discussed on page 18, 500 gpd bounds the technical specification value of 144 gpd.