

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

June 25, 2013

Mr. Joseph E. Pacher 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 - RE: ISSUANCE OF AMENDMENT APPROVING THE USE OF ALTERNATE CONTROL AND SHUTDOWN ROD POSITION MONITORING SYSTEM (TAC NO. ME8514)

Dear Mr. Pacher:

The Commission has issued the enclosed Amendment No. 114 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 April 20, 2012.

The Amendment revises Technical Specification (TS) 3.1.7 to approve the use of an alternative method, other than the current method using the movable incore detectors system, to monitor the position of control rod or shutdown rod, in the event of a malfunction of the microprocessor rod position indication system. The use of this alternative method would reduce the required frequency of flux mapping using the movable incore detector system to determine the position of the control or shutdown rod position that is not being indicated. This will reduce the wear on the movable incore detector system that is also used to complete other required TS surveillances.

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,

Mohan Checkuc

Mohan C. Thadani, 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. 114 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. 114 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 April 20, 2012 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 114, 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert Beall, Acting 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 25, 2013

## ATTACHMENT TO LICENSE AMENDMENTS

## AMENDMENT NO. 114 TO 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 |
|--------|--------|
| Page 3 | Page 3 |

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

| Remove  | Insert  |
|---------|---------|
| 3.1.7-1 | 3.1.7-1 |
| 3.1.7-2 | 3.1.7-2 |
| 3.1.7-3 | 3.1.7-3 |
| 3.1.7-4 | 3.1.7-4 |

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## 3.1 REACTIVITY CONTROL SYSTEMS

## 3.1.7 Rod Position Indication

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

ACTIONS

I

- NOTE -

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

| CONDITION |   | REQUIRED ACTION |   | COMPLETION TIME  |  |
|-----------|---|-----------------|---|------------------|--|
| A.        | One MRPI per group<br>inoperable for one or<br>more groups. | A.1             | Verify the position of the<br>rods with inoperable<br>position indicators by using<br>movable incore detectors. | Once per 8 hours |  |
|           |   | <u>OR</u>       |   |                  |  |
|           |   | A.2             | Reduce THERMAL POWER to $\leq$ 50% RTP.   | 8 hours          |  |
|           |   | OR              |   |                  |  |

|    | CONDITION   |                  | REQUIRED ACTION  | COMPLETION TIME   |  |
|----|---|------------------|--|---|--|
|    |   |                  | - NOTE -<br>Rod position monitoring by<br>Actions A.3.1 and A.3.2 may<br>be applied to only one<br>inoperable rod position<br>indicator and shall only be<br>allowed until an entry into<br>MODE 5 |   |  |
|    |   | A.3.1            | Verify the position of the<br>non-indicating rod indirectly<br>by using movable incore<br>detectors.   | 8 hours<br><u>AND</u><br>Once within 8 hours<br>of rod control<br>system indication of<br>potential rod<br>movement<br><u>AND</u><br>Once per 31 days<br>thereafter |  |
|    |   |                  | AND  |   |  |
|    |   | A.3.2            | Review the parameters of<br>the rod control system for<br>indications of rod movement<br>for the rod with an<br>inoperable position<br>indicator.  | 16 hours<br><u>AND</u><br>Once per 8 hours<br>thereafter  |  |
| В. | One or more rods with<br>inoperable position<br>indicators have been<br>moved > 24 steps in one<br>direction since the last<br>determination of the rod's<br>position | В.1<br><u>OR</u> | Verify the position of the rods with inoperable position indicators by using movable incore detectors.   | 4 hours   |  |
|    | <b>P</b>  | B.2              | Reduce THERMAL POWER to $\leq$ 50% RTP.  | 8 hours   |  |

| CONDITION |  | REQUIRED ACTION |   | COMPLETION TIME  |  |
|-----------|--|-----------------|---|------------------|--|
| C.        | One demand position<br>indicator per bank<br>inoperable for one or<br>more banks.                              | C.1.1           | Verify by administrative<br>means all MRPIs for the<br>affected banks are<br>OPERABLE.  | Once per 8 hours |  |
|           |  |                 | AND   |                  |  |
|           |  | C.1.2           | Verify the most withdrawn<br>rod and the least withdrawn<br>rod of the affected banks<br>are ≤ 12 steps from the<br>OPERABLE demand<br>position indicator for that<br>bank. | Once per 8 hours |  |
|           |  | <u>OR</u>       |   |                  |  |
|           |  | C.2             | Reduce THERMAL POWER to $\leq$ 50% RTP.   | 8 hours          |  |
| D.        | Required Action and<br>associated Completion<br>Time of Condition A,<br>Condition B or Condition<br>C not met. | D.1             | Be in MODE 2 with K <sub>eff</sub><br>< 1.0.  | 6 hours          |  |
| E.        | More than one MRPI per group inoperable for one or more groups.  | E.1             | Enter LCO 3.0.3.  | Immediately      |  |
|           | <u>OR</u>  |                 |   |                  |  |
|           | More than one demand<br>position indicator per<br>bank inoperable for one<br>or more banks.                    |                 |   |                  |  |

# SURVEILLANCE REQUIREMENTS

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|            | FREQUENCY  |  |
|------------|--|--|
| SR 3.1.7.1 | Verify each MRPI agrees within 12 steps of the group demand position for the full indicated range of rod travel. | Prior to reactor<br>criticality after each<br>removal of the<br>reactor head |



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

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

# RELATED TO AMENDMENT NO. 114 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 April 20, 2012, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12115A307) and Attachment 1 (ADAMS Accession No. ML121290485), R.E. Ginna Nuclear Power Plant LLC. the licensee for R. E. Ginna Nuclear Power Plant (Ginna), submitted a request to the U. S. Nuclear Regulatory Commission (NRC) for changes to the Ginna Technical Specifications (TS) 3.1.7, "Rod Position Indication." In the event that a single control rod or shutdown rod position indicator is inoperable, Action A.1 of TS 3.1.7 requires the verification of control rod or shutdown rod position by the use of movable incore detectors every 8 hours.

The proposed amendment would revise the TS 3.1.7 to approve the use of an alternative method, other than the current method using movable incore detectors system, to monitor the position of control rod or shutdown rod, in the event of a malfunction of the microprocessor rod position indication (MRPI) system. The use of this alternative method would reduce the required frequency of flux mapping using the movable incore detector system to determine the position of the control or shutdown rod position that is not being indicated. This will reduce the wear on the movable incore detector system that is used also to complete other required TS surveillances. Notice of this amendment was published in the *Federal* Register on April 16, 2013 (78 FR 22572).

## 2.0 REGULATORY EVALUATION

In Title 10 of the *Code* of *Federal Regulations* (10 CFR) Section 50.36, the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs);

(4) design features; and (5) administrative controls. The rule does not prescribe any specific requirements to meet its objectives.

As stated in 10 CFR 50.36(c)(2)(i), the "Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When an LCO of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specification until the condition can be met." Criterion 2 of 10 CFR 50.36(c)(2)(ii) requires an LCO to be established for a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

General Design Criterion (GDC) 13 in 10 CFR 50, Appendix A, specifies that instrumentation shall be provided to monitor variables and systems over their operating ranges during normal operation, anticipated operational occurrences, and accident conditions.

Ginna's licensing basis requires operability of the shutdown and control rod MRPI system and the bank demand position indication system, to ensure compliance with the control rod alignment and insertion limits. The NRC staff review verified that the licensing basis criteria stated in the Updated Final Safety Analysis Report (UFSAR) will continue to be met when operating in the proposed revised mode.

## 3.0 TECHNICAL EVALUATION

#### 3.1 <u>Background</u>

The objectives of the rod control system and rod position indication system are to ensure that control rod and shutdown rod alignment and insertion limits are maintained. Operators utilize the MRPI system to monitor the positions of the rods to establish that the plant is operating within the safety bounds assumed in the accident analysis. Operability features, including adequate rod position indication, of the control rods and shutdown rods is an initial condition assumption in all safety analyses that assume rod insertion upon a reactor trip. Maximum rod misalignment is an initial condition assumption in the safety analysis that directly affects core power distributions and assumptions of available shutdown margin (SDM). Control rod inoperability or misalignment may cause increased power peaking due to the asymmetric reactivity distribution and a reduction in the total available rod worth for reactor shutdown.

The axial position of control or shutdown rods is indicated by two separate and independent systems comprising of the Bank Demand Position Indication System (commonly called group step counters) and the MRPI System. The Bank Demand Position Indication System counts the pulses from the Rod Control System that move the rods. There is one step counter for each group of rods. Individual rods in a group all receive the same signal to move and should all normally be at the same position indicated by the group step counter for that group. The Bank Demand Position Indication System is considered to have high precision of  $\pm 1$  step or  $\pm 5/8$  inch.

The MRPI System provides a highly accurate indication of actual control rod position, but at a lower precision than the step counters. The MRPI system consists of one digital detector

assembly per rod. All the detector assemblies consist of one coil stack which is multiplexed and becomes input to two redundant MRPI signal processors. Each signal processor independently monitors all rods and senses a rod bottom for any rod. The MRPI system directly senses rod position in intervals of 12 steps for each rod. The digital detector assemblies consist of 20 discrete coil pairs spaced at 12-step intervals. The true rod position is always within ± 8 steps of the indicated position (± 6 steps due to the 12-step interval and ± 2 steps transition uncertainty due to processing and coil sensitivity). With an indicated deviation of 12 steps between the group step counter and MRPI, the maximum deviation between actual rod position and the demand position would be 20 steps, or 12.5 inches.

Operators use the MRPI system to monitor the position of the rods to establish that the plant is operating within the bounds of the accident analysis. Power peaking, ejected rod worth, or SDM limits may be violated in the event of a design basis accident with control or shutdown rods operating outside their limits, undetected.

### 3.2 Description of Proposed TS Change

The proposed change to TS 3.1.7 will add new actions that will allow the use of an alternative rod position monitoring method. Action A.3.1 and A.3.2 will be incorporated to provide for the use of an alternative monitoring system. The new requirements are as follows:

- Action A.3.1: Verify the position of the non-indicating rod, indirectly, by using the movable incore detectors.
- Action A.3.1: Completion Time: Verify once within 8 hours of condition entry (or rod control system indication of potential rod movement) and every 31 days thereafter.
- Action A.3.2: Review the parameters of the rod control system for indications of rod movement for the rod with an inoperable position indicator.
- Action A.3.2: Completion Time: Verify once within 16 hours and every 8 hours thereafter.

A note is added that will apply to the new Actions A.3.1 and A.3.2. This note describes the limitations for use of these new provisions. The note states:

Rod position monitoring by Actions A.3.1 and A.3.2 may be applied to only one inoperable rod position indicator and shall only be allowed until an entry into MODE 5.

### 3.3 Evaluation of Proposed TS Change

The proposed change will provide an alternative to the use of the movable incore detectors every 8 hours for an extended period of time until repairs can be completed. The parameter monitored for a control rod or shutdown rod with an inoperable position indicator will be the stationary gripper coil current. The control rods are held in place by energized stationary gripper coils. The control rod cannot be moved without de-energizing the stationary gripper coil. The rod control power cabinet uses a resistor to monitor coil current. The gripper coil current (measured as an equivalent voltage) is monitored on a temporary digital recorder located next to the rod control cabinet. This allows for trending and historical data retrieval. A deviation between the actual current and the reference current will result in an Urgent Alarm signal sent to the logic cabinet and the control room enunciator. The monitored points are the same as those currently monitored by the rod control drive regulation failure detector circuit.

The licensee proposes to continue monitoring to determine if the coils have changed position on a once every 8 hour basis. Should the parameters of the coils of the monitored rod indicate movement; a determination of the position of the rod will be made using the movable incore detectors within 8 hours. This timeframe is consistent with existing TS 3.1.7 Action A.1. Since verification with incore detectors is performed within 8 hours, continued monitoring of rod control system parameters is not required until 16 hours after rod movement is identified as stated in proposed Action A.3.2. In practice, this would occur 8 hours after verification is performed with movable incore detectors. Compliance with either Action A. 1 or the proposed Action A.3 will result in the verification of the position of the affected rod within 8 hours by use of the movable incore detectors.

To provide a verification of the reliability of the alternate monitoring system, rod position is verified by moveable incore monitoring every 31 days. This frequency minimizes use of the movable incore monitoring system and can be performed concurrently with existing surveillance requirements for Hot Channel Factors. The Hot Channel Factors are safety limits measured by the incore detector system under TS 3.2.1, "Heat Flux Hot Channel Factor," and TS 3.2.2, "Nuclear Enthalpy Ride Hot Channel Factor." SRs for these TSs require measurement of the Hot Channel Factors every 31 effective full power days.

Part of the MRPI system is located inside containment. Repair of the MRPI coils requires removal of the shroud and shield assembly that provides a duct system for the control drive mechanism cooling air flow; therefore repairs cannot be performed without the reactor head assembly in place and the unit in the cold shutdown condition (Mode 5). The note added to TS 3.1.7 is to allow for monitoring until the plant enters Mode 5 and repair of the MRPI indication can be safety performed. This ensures that the alternate monitoring may be in place for one inoperable indicator for at most one refueling cycle (18 months) or when the plant enters Mode 5 for a forced outage, whichever comes first.

The following operational events were reviewed by the NRC staff when considering the proposed TS change:

### 1. Rod Drop or Rod Misalignment During Power Operations

A rod drop is described in Section 15.4.6 of the UFSAR for Ginna as dropping of a full-length rod cluster control assembly (RCCA) when the drive mechanism is de-energized. A dropped RCCA would cause a power reduction and an increase in the hot channel factor. It is classified as a Condition II event of moderate frequency.

If a RCCA drops into the core during power operation, it would be detected by a rod bottom signal, by an ex-core nuclear instrument, or by both. The MRPI system senses each RCCA's position and provides a rod bottom signal for any dropped RCCA. If the MRPI is inoperable, the UFSAR describes that an independent indication of a dropped RCCA is derived from the excore power range nuclear instruments. This rod drop detection circuit is actuated when a rapid decrease in the local neutron flux is sensed in any of the four channels. The circuitry is

designed to accommodate normal load variations in order to avoid spurious actuation. A rod drop signal from the rod position indication channel or from one or more of the four power range channels blocks further automatic rod withdrawal by the rod control system. Core parameters such as core power and average temperature would also have a noticeable change in the case of a full rod drop and would initiate operator action.

Rod misalignment is detectable by a change in axial flux, channel deviation, and control rod detection alarms. After identifying a RCCA group misalignment condition, the operator must take action as required by the plant TSs and operating instructions. The initiation of operator action in the event of a misaligned control rod is independent of the status of the MRPI system.

Based on the available indications and alarms, the likelihood of not detecting a rod drop or misalignment during power operation while alternate monitoring is in place is negligible. Therefore, the NRC staff finds that the design basis analyses of a rod drop or misalignment during power operation remain acceptable.

## 2. Rod Drop or Rod Misalignment During Reactor Startup

If an unplanned outage that does not result in an entry into Mode 5 and repairs of the inoperable MRPI are not possible in another operating Mode, the licensee plans to use alternate monitoring methods to determine control rod position. Since the movable incore detectors cannot be used to determine rod position until sometime after entry into Mode 2 when neutron flux becomes adequate, control rod drive mechanism (CRDM) traces will be used as the alternate method to verify that the rod is fully withdrawn. Rod position verification using this method will permit startup and entry into Mode 2. The movable incore detectors will be used to verify rod position when neutron flux becomes adequate.

Following verification that the rod is withdrawn, a rod misalignment would be detectable by means other than the MRPI system by using CRDM trace monitoring, axial flux difference, channel deviation, and/or rod control stationary regulation failure alarms. The required operator actions would be independent on the status of the individual rod position indication from MRPI. Based on the available indications and alarms, as well as diverse verification methods, the increase in the likelihood of an undetected rod drop or misalignment during reactor startup is negligible. Therefore, the NRC staff finds that the design basis analyses of a rod drop or misalignment during power operation remain acceptable.

### 3. Reactor Trip

Following a reactor trip, the position indication system is used to verify that all rods have fully inserted. Boration is required if one or more rods fails to fully insert. If it cannot be verified with MRPI indication that all rods are on the bottom, then the licensee is directed to use procedure ES-0.1, "Reactor Trip Response," which requires boration to account for each rod not fully inserted. Also, if there are one or more untrippable rods, TS 3.1.4, "Rod Group Alignment Limits," requires boron initiation to restore SDM to within limits specified in the core operating limit report (COLR) and to be in MODE 2 with  $k_{eff} < 1.0$  within six hours. The NRC staff finds that there are adequate controls to provide reasonable assurance that the plant will achieve subcriticality following a reactor trip.

SDM requirements provide sufficient reactivity margin to ensure that acceptable fuel design limits will not be exceeded for normal shutdown and anticipated operation occurrences.

SDM in Modes 1 and 2 with  $k_{eff} \ge 1.0$  is ensured by verifying that control bank and shutdown bank rods are within limits specified in the COLR as described is TS 3.1.5, "Shutdown Bank Insertion Limit" and TS 3.1.6, "Control Rod Bank Insertion Limit." This is done by monitoring the rod insertion limit. A description of the rod insertion limit circuit was described in detail in the April 20, 2012, license amendment request.

The rod insertion limit circuit is designed to provide a continuously calculated insertion limit for each of the control banks that is variable with power. It provides alarms to ensure that the operator keeps the control rods located within the limits. The rod insertion limit circuit performs its function by receiving control bank position data from the rod control system. It compares this data to the calculated limit that is determined by reactor power as measured from the coolant loop average differential temperature (delta T). The rod insertion limits ensure that adequate shutdown margin exists to shut down the reactor at any time and condition in the life of the core.

The rod insertion limit monitoring circuit is independent of the rod position indication circuit. Inoperability of the rod position indication has no impact on the rod insertion limit monitoring and therefore has no impact on the ability of operators to verify SDM. The alternate monitoring method, which will monitor the stationary gripper coil for the control rod with an inoperable MRPI, will provide assurance that the position has not changed and remains within the allowed margin for the affected control rod and the control rod bank insertion limits of TS 3.1.5 and TS 3.1.6. The NRC staff concludes that there are adequate controls, while operating in Modes 1 and 2 with  $k_{eff} \ge 1.0$ , to provide reasonable assurance that the plant will continue to achieve subcriticality during a reactor trip.

The TS Bases for TS 3.1.1, "Shutdown Margin," state that in MODE 2 with  $k_{eff} < 1.0$  and MODES 3, 4, and 5, the SDM is verified by comparing the reactor coolant system (RCS) boron concentration to a SDM requirement curve that was generated by taking into account estimated RCS boron concentrations, core power defect, control bank position, RCS average temperature. fuel burnup based on gross thermal energy generation, xenon concentration, samarium concentration, and isothermal temperature coefficient. In operational Mode 2 with keff < 1.0 and Modes 3, 4, and 5, the rod position with the inoperable MRPI cannot be easily determined while using proposed required Actions A.1 (movable incore detector method) or A.3.1 and A.3.2 (alternate monitoring method). In addition, the rod bottom indication will not be available for the rod with an inoperable MRPI to verify full rod insertion; thus, the non-indicating rod would be assumed to be incapable of providing negative reactivity following a reactor trip and would not be credited in the SDM calculation. Therefore, the SDM is ensured by considering RCS boron concentration, rod position, RCS average temperature, fuel burnup, xenon concentration and samarium concentration. To compensate for the non-indicating rod, the boron concentration requirements will be increased to allow the withdrawn worth of the rod assuming this control rod has the highest reactivity allowance. During MODE 2 with keff < 1.0 and MODES 3, 4, and 5, if the SDM is not within the limits specified in the COLR, boron is initiated to restore SDM to within limit in 15 minutes as specified in TS 3.1.1.

In summary, the non-indicating rod would be treated as if it has not fully inserted on a reactor trip and operators will take actions as currently driven by procedures to safely shut down the reactor. Therefore, while operating in Mode 2 with  $k_{eff} < 1.0$  and Modes 3, 4, and 5, the NRC staff concludes that there are adequate controls to provide reasonable assurance that the plant will continue to achieve subcriticality upon a reactor shutdown.

As a result, the NRC staff concludes that the use of an alternate method for monitoring the non-indicating rod position provides an acceptable process for knowing the non-indicating rod position and therefore continues to meet GDC 13.

Based upon the above evaluation, the NRC staff concludes that the alternate monitoring method, which provides continuous monitoring, and the movable incore detector method, which provides monitoring on an intermittent basis, in conjunction with each other, provides an adequate monitoring process associated with an inoperable MRPI. Therefore, the NRC staff concludes that the proposed license amendment request is acceptable based on the following rationale: (1) the TS changes provide adequate controls to ensure that the rod position is known; (2) any rod misalignment will be detectable for the one rod with an inoperable MRPI; and (3) operators will take appropriate action to ensure that the rod stays within its alignment limit and that SDM is maintained.

In addition, the NRC staff concludes that the outage times of Action A.3.1 and Action A.3.2 discussed in above Section 3.2 are acceptable because they are consistent with the TS discussed in Section 3.3.

Furthermore, the NRC staff accepts the licensee's position that an inoperable MRPI should be repaired during an entry into Mode 5 when the repair can be safely performed.

## 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.

### 6.0 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 (78 FR 22572). 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.

# 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations; and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Gazzetta

Date: June 25, 2013

Mr. Joseph E. Pacher 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 - RE: ISSUANCE OF AMENDMENT APPROVING THE USE OF ALTERNATE CONTROL AND SHUTDOWN ROD POSITION MONITORING SYSTEM (TAC NO. ME8514)

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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**/

Mohan C. Thadani, Senior Project Manager Plant Licensing Branch I-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosures:

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2. Safety Evaluation

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| DATE   | 6/13/13   | 6/13/13    | 6/21/13  | 02/28/2012 | 02/28/2012 | 6/25/13      | 6/25/13   |
|        |           |            |          |            |            |              |           |

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