January 8, 2004

Mr. John L. Skolds, Chairman
and Chief Executive Officer
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, Illinois 60555

SUBJECT: CLINTON POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT (TAC NO. MB7675)

Dear Mr. Skolds:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 160 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit 1. The amendment is in response to your application dated January 29, 2003 (RS-03-013), and supplemented by letter dated September 15, 2003 (RS-03-185).

The amendment proposes a one-time Technical Specification change to extend the test interval for the next Appendix J Type A test and the next drywell bypass leakage rate test from 10 to 15 years.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA by J. Hopkins for/

Douglas V. Pickett, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosures: 1. Amendment No. 160 to NPF-62
2. Safety Evaluation

cc w/encls: See next page

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NAME	DPickett	THarris	RDennig*	DTerao**	KKannler	AMendiola
DATE	12/09/03	12/08/03	11/12/03	10/29/03	12/18/03	01/07/04

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*See RDennig to AMendiola memo dated 11/12/03
**See DTerao to AMendiola memo dated 10/29/03

Clinton Power Station, Unit 1

cc:

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 160
License No. NPF-62

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

   A. The application for amendment by AmerGen Energy Company, LLC (the licensee), dated January 29, 2003, and supplemented by letter dated September 15, 2003, 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 Facility Operating License No. NPF-62 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 160 are hereby incorporated into this license. AmerGen Energy Company, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by W H Ruland for/

Anthony J. Mendiola, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 8, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 160

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

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 Pages	Insert Pages
3.6-54b	3.6-54b
5.0-16a	5.0-16a

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 160 TO FACILITY OPERATING LICENSE NO. NPF-62

AMERGEN ENERGY COMPANY, LLC

CLINTON POWER STATION, UNIT 1

DOCKET NO. 50-461

1.0 INTRODUCTION

By application dated January 29, 2003, and supplemented by letter dated September 15, 2003, AmerGen Energy Company (AmerGen), the licensee, proposed an amendment to the Clinton Power Station, Unit 1, Technical Specifications (TS). The proposed amendment would revise TS Section 3.6.5.1, "Drywell," Surveillance Requirement (SR) 3.6.5.1.3 to delay the performance of the next drywell bypass leakage test to no later than November 23, 2008. The proposed amendment would also revise TS 5.5.13 by replacing the existing Exception No. 2 with "NEI 94-01 - 1995, Section 9.2.3: The first Type A test performed after November 23, 1993, shall be performed no later than November 23, 2008." As a result, the Type A containment integrated leak rate test (ILRT) required by 10 CFR Part 50, Appendix J, will be performed by November 23, 2008.

This evaluation addresses the aging degradation of the containment pressure boundary and the risk impact assessment as it relates to extending the time interval for performing the containment integrated leak rate test and drywell bypass leak rate tests from 10 to 15 years.

The supplemental letter of September 15, 2003, contained clarifying information and did not change the initial no significant hazards consideration determination and did not expand the scope of the original *Federal Register* Notice.

2.0 REGULATORY EVALUATION

2.1 Type A Test Interval Extension

Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix J, was revised in 1995 by the addition of Option B, "Performance-Based Requirements," to the original requirements, which were then designated as Option A, "Prescriptive Requirements." Option B requires that a Type A test be conducted at a periodic interval based on historical performance of the overall containment system. Clinton TS 5.5.13 requires that leakage rate testing be performed as required by 10 CFR Part 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the guidelines contained in Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, with certain exceptions listed in the TS. This RG endorses, with certain exceptions, Nuclear Energy Institute (NEI) Report 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," dated July 26, 1995.

A Type A test is an overall (integrated) leakage rate test of the containment structure. NEI 94-01 specifies an initial test interval of 48 months, but allows an extended interval of 10 years, based upon two consecutive successful tests. There is also a provision for extending the test interval an additional 15 months in certain circumstances. The most recent two Type A tests at Clinton have been successful, so the current interval requirement is 10 years.

The licensee is requesting an addition to TS 5.5.13, "Primary Containment Leakage Rate Testing Program," which would add an exception from the guidelines of RG 1.163 regarding the Type A test interval. Specifically, the proposed TS states that the first Type A test performed after November 23, 1993 (the date of the latest test), shall be performed no later than November 23, 2008.

There is also an outdated exception to RG 1.163 which the licensee has proposed to delete. The exception states that the leakage rate testing of primary containment penetration 1MC-042 may be deferred until the 7th refueling outage. The 7th refueling outage has already been completed.

The local leakage rate tests (Type B and Type C tests), including their schedules, are not affected by this request.

2.2 Drywell Bypass Leakage Rate Test Interval

License Amendment No. 106 to the operating license for Clinton was issued on September 4, 1996 (ADAMS Accession No. ML020990297). The amendment required that the drywell bypass leakage rate test (DBLRT) be conducted at least once every 10 years on a performance-based frequency (the DBLRT frequency had been once per 18 months). In the event that a test is performed with the bypass leakage greater than its limit, the test frequency becomes once every 48 months. Following two consecutive tests with bypass leakage greater than its limit, the test frequency is once every 24 months until two consecutive tests are less than or equal to the bypass leakage limit. The last DBLRT was successfully conducted in November 1993.

One purpose of the change was to make the DBLRT frequency the same as the Appendix J Type A test frequency because the two tests share test equipment and system lineups. Thus, the licensee has accompanied its request for a one-time Type A test interval extension to 15 years with a request for a one-time extension of the DBLRT interval to 15 years.

To summarize the staff's safety evaluation for the amendment cited above, the staff focused on the licensee's identification and analysis of potential leakage paths to the containment airspace; historical bypass leakage test results, especially when compared to the TS and design limits; and the licensee's commitments to online monitoring and evaluation of drywell bypass leakage.

During a small-break loss-of-coolant accident, potential leak paths between the drywell and containment airspace could result in excessive containment pressure if the steam flow into the airspace would bypass the vapor suppression capabilities of the pool. The potential leakage paths between the drywell and the containment are: 1) piping and electrical penetrations; 2) the drywell equipment hatch; and 3) the drywell personnel air lock. The staff found that 1) the electrical penetrations are unlikely to leak significantly, and the design drywell bypass leakage rate is so large that, even if the valves in many of the pipes were left open, the design limit

would not be exceeded; and 2) both the equipment hatch and drywell air lock have double compression seals and are leak tested in accordance with TSs.

Regarding testing history, the staff found that past test results indicated that bypass leakage had consistently been small, less than 1 percent of the TS allowable limit and less that 0.1 percent of the design limit.

The drywell is constantly being pressurized due to instrument air in-leakage and must be vented approximately once per day when drywell pressure approaches the upper TS limit of 1.0 psig. Because of the large margin to the allowable drywell leakage rate, the licensee concluded, and the staff accepted, that as long as the drywell continues to pressurize, regardless of the rate, an unacceptable leakage path does not exist and drywell integrity is assured. Furthermore, the licensee committed to perform a qualitative assessment of the drywell leak tightness at least once per operating cycle. This assessment provides added assurance that the drywell has not seriously degraded between performances of the DBLRT.

The staff's safety evaluation for License Amendment No. 106 concluded that the proposal to change the DBLRT interval from 18 months to 10 years (given good performance) was acceptable because of the demonstrated margin available due to the large amount of leakage necessary to exceed the containment design pressure, and the licensee's commitment to assess the drywell bypass leakage in order to maintain a reasonable assurance that the drywell remains operable.

The licensee's request is to have the following note added to SR 3.6.5.1.3 regarding performance of the DBLRT: "The next required performance of this SR may be delayed to November 23, 2008."

3.0 TECHNICAL EVALUATION

3.1 Inservice Inspection (ISI) for Primary Containment Integrity

Clinton is a General Electric BWR/6 plant with a Mark III containment design. The Mark III containment design is a single-barrier pressure containment and a multi-barrier fission containment system consisting of the drywell and primary containment. The suppression pool is an annular pool of demineralized water between the drywell and the outer primary containment boundary. The pool covers the horizontal vent openings in the drywell to maintain a water seal between the drywell interior and the remainder of the containment volume. The primary containment is penetrated by piping and electrical penetrations. The integrity of the penetrations is verified through Type B and Type C local leak rate tests (LLRT) as required by 10 CFR Part 50, Appendix J, and the overall integrity of the containment structure is verified through an ILRT. These tests are performed to verify the essentially leak-tight characteristics of the containment structure at the design-basis accident pressure.

As stated in the request, Clinton has performed four ILRTs (including two pre-operational tests) during the period of its operating license. The completion dates of these tests are: January 2, 1986; November 4, 1986; February 16, 1991; and November 23, 1993. Based on these successful Type A tests and the requirements of 10 CFR Part 50, Appendix J, Option B, the current ILRT test interval requirement is 10 years. With the requested extension of the ILRT time interval, the licensee proposes that the next overall verification of the containment leak-

tight integrity will be performed by November 23, 2008. Because the leak rate testing requirements (ILRT and LLRTs) of Option B of 10 CFR Part 50, Appendix J, and the containment ISI requirements mandated by 10 CFR 50.55a complement each other in ensuring the leak-tightness and structural integrity of the containment, the staff, from its review of Type A test interval extension application of other plants, identified several general issues related to the ISI of the containment and potential areas of weaknesses in the containment and requested the licensee to address these issues. The staff's evaluation of the licensee's responses is discussed in the following paragraphs.

In response to the first issue, the licensee stated that Clinton has implemented a containment ISI program to the requirements of American Society of Mechanical Engineers (ASME) Section XI, "Inservice Inspection," Subsections IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Power Plants," and IWL, "Requirements for Class CC Concrete Components of Light-Water Cooled Power Plants." According to the licensee, the Clinton ISI program began in 1996 based on the requirements of the 1992 Addenda of the ASME Boiler and Pressure Vessel Code, Section XI, Division 1, Subsections IWE and IWL, as modified by Nuclear Regulatory Commission (NRC) final rulemaking to 10 CFR 50.55a, "Codes and Standards," issued in the *Federal Register* on August 8, 1996. The initial inspections were completed in September 2001. The components subject to Subsection IWE and IWL requirements are those that make up the containment structure and its leak-tight barrier (including integral attachments), and those that contribute to its structural integrity. Specifically included are Class MC pressure retaining components, including the metallic shell and penetration liner of Class CC pressure retaining components and their integral attachments. The licensee also stated that there will be no change to the schedule for the ISI as a result of the extended ILRT interval. Based on its review of the information provided by the licensee, the staff finds that the schedule for implementing the containment ISI program will not be affected by the requested extension of the ILRT interval (up to 15 years).

For the issue related to the application of any augmented examination (required by IWE Table-2500-1, Examination Category E-C), the licensee stated that based on the initial ISI inspections completed, various indications were observed, documented, evaluated and determined to be acceptable. No areas of the containment liner surfaces require augmented examination and no loss of structural integrity of primary containment vessel was observed.

With regard to the issue related to the ISI of seals, gaskets and the pressure retaining bolting, the licensee received the staff's authorization for its alternatives to Code requirements (Relief Request CIP-6101 proposed to perform a Type B test instead of VT-3 visual examinations for seals and gaskets; and Relief Request CIP-6107 proposed: (1) to perform a visual inspection, in lieu of performing the VT-1 visual examination according to Table IWE-2500-1, Examination Category E-G, E8.10, of bolted connections in accordance with Table IWE-2500-1, Examination Category E-A, (2) to verify the leak-tight integrity of the bolted connections in accordance applicable requirements of 10 CFR Part 50, Appendix J instead of performing the torque or tension test based on Table IWE-2500-1, E8.20, and (3) to perform a general visual examination of the entire containment once each inspection period pursuant to 10 CFR 50.55a(b)(2)(x)(E)). From these authorized alternatives, the containment leak-tight integrity will be examined and tested periodically. On this basis, the licensee justified that the one-time extension applies only to the Type A ILRT that is currently on a 10-year interval pursuant to Appendix J, Option B, performance-based requirements. Appendix J, Type B and C tests are performed at the intervals required by Appendix J, Option B and will be tested at least once in

the 10-year interval. The periodic testing of seals, gaskets and containment pressure-retaining bolting will ensure the integrity of the containment pressure boundary over the period of the extension. On the basis discussed above, the staff finds that the licensee's ISI program for seals, gaskets and bolted connections provides reasonable assurance that the integrity of the containment pressure boundary will be maintained.

In its response to the issue regarding the integrity of two-ply stainless steel bellows (Information Notice 92-20, "Inadequate Local Leak Rate Testing"), the licensee stated that Clinton has installed Modification FH-030 to the inclined fuel transfer system containment penetration to address the issue of bellows ply separation and the ability to fully challenge the bellows with a Type B test. Modification FH-030 consists of a steel cylinder attached to the bellows and the fuel transfer tube with test connection valves allowing pressurization of the volume between the cylinder and the transfer tube and bellows, and allows Clinton to fully challenge the bellows assembly with the Type B test. Because potential leakage would be detected through Type B tests even without ILRT testing, and because Type B tests are already performed more often than ILRT tests, extending the ILRT interval does not impact the risk of an undetected bellows failure. The licensee also stated that Clinton has no other flexible bellows assemblies serving as the primary containment boundary. Therefore, the staff finds that the concern related to NRC Information Notice 92-20 is adequately addressed.

For the issue related to the inaccessible areas of the containment liner for which degradations cannot be found by visual examinations, the licensee performed a risk assessment considering the potential age-related corrosion effects on the containment liner integrity and a series of parametric sensitivity studies. The results of the risk assessment indicated that the ILRT interval extension has a minimal impact on plant risk. Based on its review of the licensee's submittals, the staff finds that the increase in predicted risk due to the proposed change is within the acceptance guidelines while maintaining the defense-in-depth philosophy of RG 1.174 and is, therefore, acceptable. The details of the staff's evaluation regarding the risk assessment performed by the licensee is described elsewhere in this safety evaluation.

On the basis of its review of the information provided by the licensee in its TS amendment request and its response to the staff's questions, the staff finds that (1) the structural integrity of the containment vessel is verified through the periodic ISI conducted as required by Subsections IWE and IWL of the ASME Code, Section XI, and (2) the integrity of the penetrations and containment isolation valves are periodically verified through Type B and Type C tests as required by 10 CFR Part 50, Appendix J. In addition, the system pressure tests for containment pressure boundary (i.e., Appendix J tests, as applicable) are required to be performed following repair and replacement activities, if any, in accordance with Article IWE-5000 of the ASME Code, Section XI. Serious degradation of the primary containment pressure boundary is required to be reported under 10 CFR 50.72 and 10 CFR 50.73.

3.3 Probabilistic Risk Assessment Evaluation

The licensee has performed a risk impact assessment of extending the test interval for the Type A test and the DBLRT from 10 to 15 years. The risk assessment was provided in the January 29, 2003, application for license amendment. Additional analysis and information was provided by the licensee in its letter dated September 15, 2003. In performing the risk

assessment, the licensee considered the guidelines of NEI 94-01, the methodology used in Electric Power Research Institute (EPRI) TR-104285, "Risk Impact Assessment of Revised Containment Leak Rate Testing," and RG 1.174, "An Approach For Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis."

The basis for the current 10-year Type A test interval is provided in Section 11.0 of NEI 94-01, Revision 0, and was established in 1995 during the development of the performance-based Option B to Appendix J. Section 11.0 of NEI 94-01 states that NUREG-1493, "Performance-Based Containment Leak-Test Program," provided the technical basis to revise leakage rate testing requirements contained in Option B to Appendix J. The basis consisted of qualitative and quantitative assessments of the risk impact (in terms of increased public dose) associated with a range of extended leakage rate test intervals. To supplement this basis, industry undertook a similar study. The results of that study are documented in EPRI Research Project Report TR-104285.

The EPRI study used an analytical approach similar to that presented in NUREG-1493 for evaluating the incremental risk associated with increasing the interval for Type A tests. The Appendix J, Option A, requirements that were in effect for Clinton early in the plant's life, required a Type A test frequency of three tests in 10 years. The EPRI study estimated that relaxing the test frequency from three tests in 10 years to one test in 10 years would increase the average time that a leak that was detectable only by a Type A test goes undetected from 18 to 60 months. Since Type A tests only detect about 3 percent of the leaks (the rest are identified during local leak rate tests based on industry leakage rate data gathered from 1987 to 1993), this results in a 10 percent increase in the overall probability of leakage. The risk contribution of pre-existing leakage for the pressurized-water reactor and boiling-water reactor representative plants in the EPRI study confirmed the NUREG-1493 conclusion that a reduction in the frequency of Type A tests from three tests in 10 years to one test in 20 years leads to an "imperceptible" increase in risk that is on the order of 0.2 percent and a fraction of one person-rem per year in increased public dose.

Building upon the methodology of the EPRI study, the licensee assessed the risk increase associated with extending the Type A test and the DBLRT intervals from 10 years to 15 years. The licensee quantified the risk from sequences that have the potential to result in large releases if a pre-existing containment leak or drywell bypass leak was present. Since the Option B rulemaking was completed in 1995, the staff has issued RG 1.174 on the use of probabilistic risk assessment (PRA) in evaluating risk-informed changes to a plant's licensing basis. The licensee has proposed using RG 1.174 guidance to assess the acceptability of the estimated risk increase. RG 1.174 defines very small changes in the risk-acceptance guidelines as increases in core damage frequency (CDF) less than 10^{-6} per year and increases in large early release frequency (LERF) less than 10^{-7} per year. Since the Type A and drywell bypass leakage rate tests do not impact CDF, the relevant criterion is the change in LERF. The licensee has estimated the change in LERF for the proposed changes relative to the original frequency of three tests in 10 years. RG 1.174 also discusses defense-in-depth and encourages the use of risk analysis techniques to help ensure and show that key principles, such as the defense-in-depth philosophy, are met. The licensee estimated the change in the conditional containment failure probability for the proposed changes to demonstrate that the defense-in-depth philosophy is met.

In assessing the risk impacts associated with the DBLRT interval extension, the licensee

applied the same basic approach as embodied in the EPRI methodology for Type A test interval extensions. The primary difference in the methodology used to evaluate the DBLRT extension is in the determination of the conditional probability of an existing drywell leak, and in the assignment of various drywell and containment leakage combinations to appropriate containment failure categories. In a Mark III containment, the drywell is completely enclosed by the primary containment. As such, drywell leakage does not leak directly to the environment, but is further mitigated by the primary containment. Because of this dual structure, the licensee considered the probability of various drywell and containment leakage combinations. Similar to the EPRI methodology for Type A test interval extensions, the drywell was considered either to be intact (base leakage assumed), to have a small pre-existing failure (10 times the base leakage), or to have a large pre-existing failure (35 times the base leakage). The base drywell leakage rate (300 scfm) was established through review of the "as-found" DBLRT results from the previous DBLRTs at Clinton. The licensee noted that the historical leakage rate at Clinton is quite low (i.e., in the range of 20 to 30 scfm), and that adverse drywell bypass leakage trends would be detectable as a result of the licensee's commitment to continuously monitor drywell pressures. The probability of each of the drywell failure categories (intact, small leak, and large leak) was assumed to be the same as the equivalent categories for the Type A evaluations. At the staff's request, a sensitivity analysis was also performed in which the probability of each of the drywell failure categories was determined based on consideration of an expanded data set consisting of all "as-found" DBLRT results for all Mark III containments. The licensee estimated the failure probability for each leakage category using a 95 percent confidence Chi-square upper bound value from this data, which is conservative.

The licensee considered three drywell leakage levels in combination with the three different containment leakage levels in the EPRI methodology, resulting in nine combinations of drywell and containment leakage sizes. Each of the nine combinations was assigned to one of the EPRI containment failure categories based on consideration of the predicted cesium iodide releases from Clinton-specific MAAP 4.0 calculations. The remaining portions of the DBLRT methodology are identical to that used for the Type A test interval extension.

The licensee provided its analyses for a change in test frequency from three tests in 10 years to one test in 15 years as discussed below. These comparisons bound the effect of going from the current one test in 10 years to one test in 15 years. The following conclusions can be drawn from the analysis associated with extending the test frequency to a one in 15-year test frequency:

1. Given the change from a three in 10-year test frequency to a one in 15-year test frequency, the increase in the total integrated plant risk is estimated to be less than 0.1 person-rem per year. This increase is comparable to that estimated in NUREG-1493, where it was concluded that a reduction in the frequency of tests from three in 10 years to one in 20 years leads to an "imperceptible" increase in risk. Therefore, the staff finds that the increase in the total integrated plant risk for the proposed change is considered small and supportive of the proposed change.

2. The increase in LERF resulting from a change in the Type A and DBLRT frequency from the original three in 10 years to one in 15 years is estimated to be 3.0×10^{-7} per year based on the internal events PRA. If the probability of the drywell failure categories is based on the Chi-square upper bound value for all Mark III DBLRT tests, the increase in LERF is estimated to be 4.5×10^{-7} per year. However, there is some likelihood that the

flaws in the containment estimated as part of the Class 3b frequency would be detected as part of the IWE/IWL visual examination of the containment surfaces (as identified in American Society of Mechanical Engineers [ASME] Boiler and Pressure Vessel Code, Section XI, Subsections IWE/IWL). Visual inspections are expected to be effective in detecting large flaws in the visible regions of containment, and this would reduce the impact of the extended test interval on LERF. The licensee's risk analysis considered the potential impact of age-related corrosion/degradation in inaccessible areas of the containment liner on the proposed change. The increase in LERF associated with corrosion events is estimated to be approximately 2×10^{-8} per year.

When the calculated increase in LERF is in the range of 10^{-7} per year to 10^{-6} per year, applications are considered if the total LERF is less than 10^{-5} per year. The licensee estimates that the total LERF for internal and external events is approximately 8×10^{-7} per year. Thus, the increase from the Type A and DBLRT interval extension would result in a total LERF that is well below the 10^{-5} per year acceptance guideline. The staff concludes that increasing the Type A test and DBLRT intervals to 15 years results in only a small change in LERF and is consistent with the acceptance guidelines of RG 1.174.

3. RG 1.174 also encourages the use of risk analysis techniques to help ensure and show that the proposed change is consistent with the defense-in-depth philosophy. Consistency with the defense-in-depth philosophy is maintained if a reasonable balance is preserved between prevention of core damage, prevention of containment failure, and consequence mitigation. The licensee estimates the change in the conditional containment failure probability to be an increase of 1.1 percentage points for the cumulative change of going from a test frequency of three in 10 years to one in 15 years. The staff finds that the defense-in-depth philosophy is maintained based on the small magnitude of the change in the conditional containment failure probability for the proposed amendment.

Based on these conclusions, the staff finds that the increase in predicted risk due to the proposed changes is within the acceptance guidelines, while maintaining the defense-in-depth philosophy of RG 1.174 and, therefore, is acceptable.

Regarding the exception to RG 1.163 which the licensee has proposed to delete, which states that the leakage rate testing of primary containment penetration 1MC-042 may be deferred until the 7th refueling outage, the staff finds that the exception has no further value, because the 7th refueling outage has already occurred and has been completed.

Based on the foregoing evaluation, the staff finds that the interval until the next Type A and drywell bypass leakage rate tests at Clinton may be extended to 15 years, and that the proposed changes to TS Sections 3.6.5.1.3 and 5.5.13 are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

This 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 or changes a surveillance requirement. 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 (68 FR 34661). 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 staff 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.

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